Consent Form

CONSENT FORM
FOR A STUDY OF DIFFERENCES IN SEARCH QUERY CONSTRUCTION BETWEEN NOVICE AND EXPERT PROGRAMMERS HUM#XXXXXXXX

Principal Investigator: [REDACTED]
Principal Investigator: [REDACTED]
Faculty Advisor: [REDACTED]
Study Sponsor: [REDACTED]

You are invited to participate in a research study about how novices and experts formulate stack overflow search queries when debugging common Python errors.

If you agree to be part of the research study, you will be asked to do two things: fill out an online survey with demographic and behavioral questions (20 min) and attend a 50-60 minute screen-recorded video conference with a member of the research team. During the video-conference, you will be asked to share your screen with the research team while you use google to search for helpful information for solving various common Python bugs. You will be asked both short response and scale-based questions about each Python bug and its associated programming tasks. For instance, you may be asked to describe the cause of a programming bug or assess the quality of a given repair.

Benefits of the research: This study will help researchers evaluate differences between how novices and experts construct debugging-related google search queries. As a result, it may also help us learn how to build more effective debugging-support tools in the future, as well as help us improve software engineering pedagogy.

Risks and discomforts: This study will take time to complete (~75 minutes), and some of the code debugging questions may be challenging.

Compensation: As compensation for participating in this study, you will be compensated ($15 novice students, $50 professional developers).

Participating in this study is completely voluntary. Even if you decide to participate now, you may change your mind and stop at any time. You may choose not to answer any survey question for any reason.

mind and stop at any time. You may choose not to answer any survey question for any reason.

We will protect the confidentiality of your research records by storing all records with identifiable information (e.g. screen recordings, compensation information) on [REDACTED] password protected devices. During analysis, we will refer to your data by a de-identified alphanumeric ID.

Since we are collecting a recording of your screen presentation, we need to let you know that this information may not be completely de-identifiable. To mitigate this, we will never publish any image from a screen recording that contains identifying information. Furthermore, we will delete any recording of your screen at your request (e.g if we inadvertently capture private information), and you may stop sharing your screen at any time.

Information collected in this project may be shared with other researchers, but we will not share any information that could identify you (including screen recordings).

If you have questions about this research study, please contact [REDACTED] at [REDACTED] or [REDACTED] at [REDACTED].

Introduction

Instructions (page 1 of 5)

Welcome! Before you begin, please read the following instructions carefully.

In this 50 to 60-minute survey, you will be presented with several buggy Python scripts (written in a file named

`script.py`), along with the full error output generated by the default Python compiler. Each script will be written in Python 3.

Your task is to use the Google search bar to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

IMPORTANT: For each search query, please make sure to add "site:stackoverflow.com" to your search query, which will limit results to only Stack Overflow links.

This is NOT a test on whether or not you know how to fix each error! Even if you already know how to resolve an error, still try to find a Stack Overflow post containing a relevant fix/explanation.

You be able to spend a maximum of 10 minutes on each page, and will continue answering questions until time is up. If

you have any questions during the survey, feel free to ask them over the video call!

In the next few pages, you will see a walkthrough of how to respond to questions in this survey.

Example (Question Format)

Each question in this survey will follow this structure:

1. Prompt (Instructions, Python Script, Error message)

Example:

Consider the following code written in Python:

```python
1  print("Hello world)
2
```

When run, this script produces the following error:

```
File "script.py", line 1
    print("Hello world)
                      ^
SyntaxError: EOL while scanning string literal
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

2. Questions (2 multiple choice, 3 short response)

Example:

1. Do you think you already know how to fix this error?

Yes

No

Maybe

2. Once you find a fix and/or explanation, please copy and

paste the link of the Stack Overflow post from which you found that information:

[ ]

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors?

You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

[ ]

5. Did you learn anything new from the results of your Google search?

Yes

No

Example (Search Query Construction)

For each prompt, your task is to do the following:

1. Read the Python code and error message
2. Use Google to find a Stack Overflow post that contains a textual explanation or code snippet that could help someone debug the code
3. Answer the survey questions

It is important to include "site:stackoverflow.com" in your Google search, as this limits results to only links from Stack Overflow.

🔍	site:stackoverflow.com a helpful query	✕	🎤	🔍

Example (Stack Overflow post)

To show what might count as irrelevant versus relevant information in a Stack Overflow post, consider the following:

Python code:

```
1  print("Hello world)
2
```

Error message:

```
  File "script.py", line 1
    print("Hello world)
                      ^
SyntaxError: EOL while scanning string literal
```

"Irrelevant" Stack Overflow post example:

What is causing this Python syntax error?

Asked 4 years, 11 months ago   Active 4 years, 11 months ago   Viewed 147 times

I'm totally new to Python, and I'm trying to run my server but I'm getting this syntax error from the project I'm working on.

```
    def find_shortest_path(start: GraphNode, end, path=[]):
                          ^
SyntaxError: invalid syntax
```

To be clear, I didn't write the code, I'm just supposed to style the project but I don't know how else to *see* the app without running it in the server.

python   django

share   improve this question   follow

asked Sep 27 '15 at 17:52
Justus Eapen
939 ● 8 ● 21

add a comment

1 Answer

Active   Oldest   Votes

This code appears to be using function annotations which are only available in Python 3.X.

What version of Python are you using?

share
improve this answer
follow

edited May 23 '17 at 12:14
Community ◆
1 ● 1

answered Sep 27 '15 at 17:54
jaynp
2,881 ● 2 ● 24 ● 40

Explanation:

Although this post mentions syntax errors, neither the question nor answer seem to mention an applicable fix or explanation that might help explain the Python code we are considering.

"Relevant" Stack Overflow post example (relevant part outlined in red):

python: SyntaxError: EOL while scanning string literal

Asked 10 years ago   Active 4 months ago   Viewed 839k times

166   I have the above-mentioned error in `s1="some very long string............"`

Does anyone know what I am doing wrong?

python   string   string-literals

29

share
improve this question
follow

edited Apr 7 '19 at 3:24
Steve
5,149 ●1 ●9 ●33

asked Aug 24 '10 at 23:04
|--"""---------"""""""
48.1k ●261 ●583 ●948

1   Are you sure it's being closed correctly and there aren't unescaped quotes somewhere? – quantumSoup Aug 24 '10 at 23:08

Unescaped quotes throw another parsing error. – JanC Aug 24 '10 at 23:38

add a comment

15 Answers

Active   Oldest   Votes

227   You are not putting a `"` before the end of the line.

Use `"""` if you want to do this:

```
""" a very long string ......
....that can span multiple lines
"""
```

share
improve this answer
follow

edited Oct 18 '17 at 11:17
Vadim Kotov
6,489 ●8 ●43 ●55

answered Aug 24 '10 at 23:07
aaronasterling
57.5k ●17 ●114 ●124

Explanation:

The text in the red box above provides an explanation as to why the error in our Python code is occurring, which could help a user debugging the code fix that error.

End of Instructions

Instructions (page 5 of 5)

Before moving on to the first question, please let your moderator know so that they can start recording your screen cast.

SyntaxError 1

~~1~~ ~~0~~ ~~0~~ ~~0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  def frog(a,b,c,d):
2      All =[]
3      l = c
4      w = a
5      s = b
6      lap = 0
7      new = 1
8      for w in range(9)
9          while  d != w :
10              All.append(new)
11              lap+=1
12              new = l+s
13              lap+=1
14              All.append(new)
15              if w-new< l:
16                  new= (w-new)+l
17                  lap+=1
18                  All.append(new)
19
20
21
22  frog(6, 1, 3, 10)
23
```

When run, this script produces the following error:

```
  File "script.py", line 8
    for w in range(9)
                    ^
SyntaxError: invalid syntax
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to add **"site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or

by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
def frog(a, b, c , d):
    All = []
    l = c
    w = a
    s = b
    lap = 0
    new = 1
    for w in range(9)
        while d != w:
            All.append(new)
            lap += 1
            new = l + s
            lap += 1
            All.append(new)
```
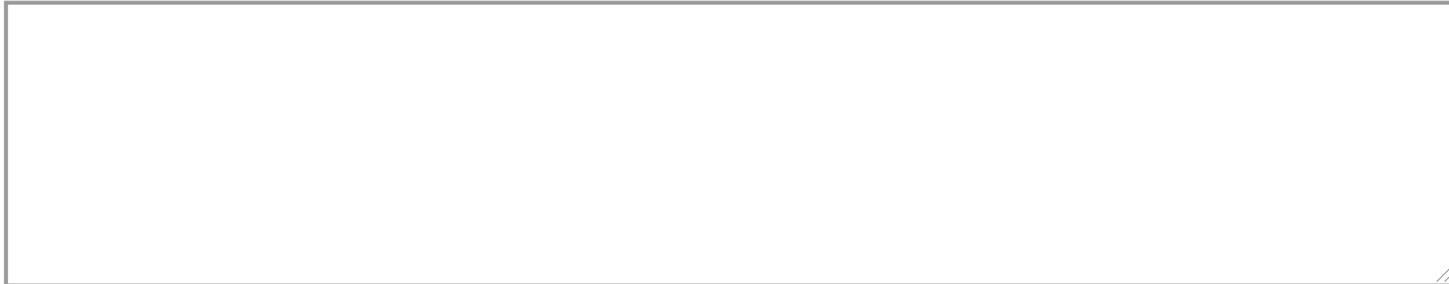
```
            if w - new < l:
                new = (w-new)+l
                lap += 1
                All.append(new)
frog(6, 1, 3, 10)
```

<u>Error message:</u>

```
  File "script.py", line 8
    for w in range(9)
                     ^
SyntaxError: invalid syntax
```

<div style="border: 1px solid gray; height: 200px;"></div>

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

SyntaxError 2

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  def setup():
2      calculate_leapyear(2012)
3
4  def calculate_leapyear(years)
5          print("year = ", years)
6          if(((((years %4) == 0) && ((years %100) != 0))
7              ((years %400 == 0)):)
8
9              print("The year is a leap year.")
10
11         else:
12
13             print("The year is not a leap year.")
14
15
16      return years
17 setup()
18
```

When run, this script produces the following error:

```
 File "script.py", line 4
   def calculate_leapyear(years)
                                ^
SyntaxError: invalid syntax
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your**

Google query, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```
def setup():
```

```python
    calculate_leapyear(2012)

def calculate_leapyear(years)
        print("year = ", years)
        if((((years %4) == 0) && ((years %100)  !=
0))
            ((years %400 == 0)):)

            print("The year is a leap year.")

        else:

            print("The year is not a leap year.")

    return years
setup()
```

Error message:
```
  File "script.py", line 4
    def calculate_leapyear(years)
```

^

`SyntaxError: invalid syntax`

---

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

SyntaxError 3

~~1000~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1  name=input(state yuor name cuz")
2  print("hello" name)
3
```

When run, this script produces the following error:

```
  File "script.py", line 1
    name=input(state yuor name cuz")
                    ^
SyntaxError: invalid syntax
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[_____]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```
name=input(state yuor name cuz")
print("hello" name)
```

Error message:

```
    File "script.py", line 1
```

```
name=input(state yuor name cuz")
                  ^
SyntaxError: invalid syntax
```

<div style="border:1px solid #888; height:280px;"></div>

5. Did you learn anything new from the results of your Google search?

◯ Yes

◯ No

SyntaxError 4

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python 3:

```
1  a = (1, 2, 3, 4)
2  b = list(a)
3  b(1) = 999
4  print (b)
5
```

When run, this script produces the following error:

```
File "script.py", line 3
    b(1) = 999
    ^
SyntaxError: can't assign to function call
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

◯ Yes

◯ No

◯ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```
a = (1, 2, 3, 4)
b = list(a)
```

```
b(1) = 999
print (b)
```

Error message:

```
  File "script.py", line 3
    b(1) = 999
     ^
SyntaxError: can't assign to function call
```

```
┌─────────────────────────────────────────────────────┐
│                                                       │
│                                                       │
│                                                       │
│                                                       │
│                                                       │
│                                                       │
└─────────────────────────────────────────────────────┘
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

SyntaxError 5

1000

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1  a=[1,2,3,0,3]
2  for i in a:
3      if !i:
4          break
5      print(i)
6
```

When run, this script produces the following error:

```
  File "script.py", line 3
    if !i:
       ^
SyntaxError: invalid syntax
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or

by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:
```python
a=[1,2,3,0,3]
for i in a:
    if !i:
        break
    print(i)
```

Error message:
```
  File "script.py", line 3
    if !i:
       ^
SyntaxError: invalid syntax
```

<div style="border:1px solid #999; width:100%; height:300px;"></div>

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

TypeError 1

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  def border_msg(msg):
2          result = msg.split("\n")
3          width = 0
4          height = len(result)
5          spaces = 0
6          for i in range(len(result) - 1):
7                  if len(result[i]) <= len(result[i+1]):
8                          width = len(result[i+1])
9          width = width + 2
10         print("+" + "-" * width + "+")
11         for a in range(height):
12             print('|{:^width}|'.format(str(result[a],
13                                    width = width)))
14         print("+" + "-" * width + "+")
15
16 border_msg("hi\nhow are you\ndrive safely")
17
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 16, in <module>
    border_msg("hi\nhow are you\ndrive safely")
  File "script.py", line 13, in border_msg
    width = width)))
TypeError: 'width' is an invalid keyword argument for str()
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```
┌─────────────────────────────────────────┐
│                                         │
│                                         │
│                                         │
│                                         │
└─────────────────────────────────────────┘
```

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

```
┌─────────────────────────────────────────┐
│                                         │
│                                         │
│                                         │
│                                         │
│                                         │
│                                         │
│                                         │
│                                         │
└─────────────────────────────────────────┘
```

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting

error message:

Python code:

```python
def border_msg(msg):
        result = msg.split("\n")
        width = 0
        height = len(result)
        spaces = 0
        for i in range(len(result) - 1):
                if len(result[i]) <=
len(result[i+1]):
                        width = len(result[i+1])
        width = width + 2
        print("+" + "-" * width + "+")
        for a in range(height):
            print('|
{:^width}|'.format(str(result[a],
                                width =
width)))
        print("+" + "-" * width + "+")
```

```
border_msg("hi\nhow are you\ndrive safely")
```

<u>Error message:</u>

```
Traceback (most recent call last):
  File "script.py", line 16, in <module>
    border_msg("hi\nhow are you\ndrive safely")
  File "script.py", line 13, in border_msg
    width = width)))
TypeError: 'width' is an invalid keyword argument
for str()
```

[   ]

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

TypeError 2

~~1000~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  def pd(string):
2      if pd[0]==pd[-1]:
3          return True
4      else:
5          return False
6      pd(string[1:-1])
7
8  pd('1221')
9
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 8, in <module>
    pd('1221')
  File "script.py", line 2, in pd
    if pd[0]==pd[-1]:
TypeError: 'function' object is not subscriptable
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code

```
def pd(string):
    if pd[0]==pd[-1]:
        return True
    else:
        return False
    pd(string[1:-1])


pd('1221')
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 8, in <module>
    pd('1221')
  File "script.py", line 2, in pd
    if pd[0]==pd[-1]:
TypeError: 'function' object is not subscriptable
```


5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

TypeError 3

~~1~~ 0 ~~0~~ ~~0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
 1  decToHexTable={'0':'0', '1':'1', '2':'2', '3':'3', '4':'4',
 2                 '5':'5', '6':'6', '7':'7', '8':'8', '9':'9',
 3                 '10':'A', '11':'B', '12':'C', '13':'D', '14':'E',
 4                 '15':'F'}
 5  hexToBinaryTable = {'0':'0000', '1':'0001', '2':'0010','3':'0011',
 6                      '4': '0100', '5': '0101', '6':'0110',
 7                      '7': '0111', '8': '1000', '9': '1001',
 8                      'A': '1010', 'B': '1011', 'C': '1100',
 9                      'D': '1101', 'E': '1110', 'F': '1111'}
10
11  def hexToBinary (number, table):
12      hexToBinaryConvert = ''
13      for idx in number:
14          hexToBinaryConvert += table[idx]
15      return(hexToBinaryConvert)
16
17  hexToBinary('A', hexToBinaryTable)
18
19  def decToHex (number, table):
20      decToHexConvert=''
21      for idx in number:
22          decToHexConvert += idx[table]
23      return decToHexConvert
24
25  decToHex('15',decToHexTable)
26
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 25, in <module>
    decToHex('15', decToHexTable)
  File "script.py", line 22, in decToHex
    decToHexConvert += idx[table]
TypeError: string indices must be integers
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for

the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

[ ]

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting

error message:

Python code:

```python
decToHexTable={'0':'0', '1':'1', '2':'2', '3':'3', '4':'4',
          '5':'5', '6':'6', '7':'7', '8':'8', '9':'9',
          '10':'A', '11':'B', '12':'C', '13':'D', '14':'E',
          '15':'F'}
hexToBinaryTable = {'0':'0000', '1':'0001', '2':'0010', '3':'0011',
                    '4':'0100', '5':'0101', '6':'0110',
                    '7':'0111', '8':'1000', '9':'1001',
                    'A':'1010', 'B':'1011', 'C':'1100',
                    'D':'1101', 'E':'1110', 'F':'1111'}
```

```python
def hexToBinary(number, table):
    hexToBinaryConvert = ''
    for idx in number:
        hexToBinaryConvert += table[idx]
    return(hexToBinaryConvert)


hexToBinary('A', hexToBinaryTable)


def decToHex(number, table):
    decToHexConvert=''
    for idx in number:
        decToHexConvert += idx[table]
    return decToHexConvert


decToHex('15', decToHexTable)
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 25, in <module>
```

```
        decToHex('15', decToHexTable)
    File "script.py", line 22, in decToHex
        decToHexConvert += idx[table]
TypeError: string indices must be integers
```


---

5. Did you learn anything new from the results of your Google search?

◯ Yes

◯ No

TypeError 4

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  def second_smallest(xs):
2          smallest=xs
3          smaller=xs
4          for i in range(len([smaller])):
5                  if smallest>i:
6                          smaller=smallest
7                          smallest=i
8                  elif smaller>i and not smallest==1:
9                          smaller=i
10         return smaller
11 second_smallest([1,2,3,4])
12
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 11, in <module>
    second_smallest([1,2,3,4])
  File "script.py", line 5, in second_smallest
    if smallest>i:
TypeError: '>' not supported between instances of 'list' and 'int'
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

[ ]

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting

error message:

Python code:

```
def second_smallest(xs):
        smallest=xs
        smaller=xs
        for i in range(len([smaller])):
                if smallest>i:
                        smaller=smallest
                        smallest=i
                elif smaller>i and not
smallest==1:
                        smaller=i
        return smaller
second_smallest([1,2,3,4])
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 11, in <module>
    second_smallest([1,2,3,4])
```

```
  File "script.py", line 5, in second_smallest
    if smallest>i:
TypeError: '>' not supported between instances of
'list' and 'int'
```


5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

TypeError 5

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
 1  def IsEdge(G,x,y):
 2      if x in G:
 3          v = 0
 4          for i in x:
 5              if y == i:
 6                  return True
 7              else:
 8                  return False
 9
10
11  #Queue:
12  G = {1:[2,3], 2:[1,5,7], 3:[1,4,5], 4:[3,5], 5:[2,3,4,6], 6:[5,8],
13  10:[11, 12], 11:[10,12,13], 12:[10,11,13], 13:[11,12]}
14
15  IsEdge(G,1,3)
16
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 15, in <module>
    IsEdge(G,1,3)
  File "script.py", line 4, in IsEdge
    for i in x:
TypeError: 'int' object is not iterable
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

[ ]

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting

error message:

Python code:

```
def IsEdge(G,x,y):
    if x in G:
        v = 0
        for i in x:
            if y == i:
                return True
            else:
                return False


#Queue:
G = {1:[2,3], 2:[1,5,7], 3:[1,4,5], 4:[3,5], 5:
[2,3,4,6], 6:[5,8],
10:[11,12], 11:[10,12,13], 12:[10,11,13], 13:
[11,12]}

IsEdge(G,1,3)
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 15, in <module>
    IsEdge(G,1,3)
  File "script.py", line 4, in IsEdge
    for i in x:
TypeError: 'int' object is not iterable
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

IndexError 1

1 0 0 0

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
 1  def mystery(lst, toggle=False):
 2      if lst == []:
 3          return []
 4      elif toggle:
 5          return [lst[0]] + mystery(lst[1:], False)
 6      else:
 7          return mystery(lst[1:], True)
 8
 9  print (mystery("I am a string" ))
10
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 9, in <module>
    print(mystery("I am a string" ))
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
IndexError: string index out of range
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
def mystery(lst, toggle=False):
```

```
    if lst == []:
        return []
    elif toggle:
        return [lst[0]] + mystery(lst[1:], False)
    else:
        return mystery(lst[1:], True)


print(mystery("I am a string" ))
```

Error message:
```
Traceback (most recent call last):
  File "script.py", line 9, in <module>
    print(mystery("I am a string" ))
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
```

```
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
    return [lst[0]] + mystery(lst[1:], False)
  File "script.py", line 7, in mystery
    return mystery(lst[1:], True)
  File "script.py", line 5, in mystery
```

```
    return [lst[0]] + mystery(lst[1:], False)
IndexError: string index out of range
```


5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

IndexError 2

~~1000~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  list = [1,1]
2  i = 0
3  for i in list:
4      newi = (list[i]) + (list[i] + 1)
5      list.append(newi)
6      i += 1
7      print(newi)
8
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 4, in <module>
    newi = (list[i]) + (list[i] + 1)
IndexError: list index out of range
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your**

Google query, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```
list = [1,1]
i = 0
```

```python
for i in list:
    newi = (list[i]) + (list[i] + 1)
    list.append(newi)
    i += 1
    print(newi)
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 4, in <module>
    newi = (list[i]) + (list[i] + 1)
IndexError: list index out of range
```
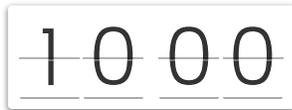

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

IndexError 3

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1  n=25
2  L=[s for s in range(1,n+1)]
3  for p in range (1,len(L),2):
4      L.pop(p)
5
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 4, in <module>
    L.pop(p)
IndexError: pop index out of range
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```



```

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

```




```

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without

producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```
n=25
L=[s for s in range(1,n+1)]
for p in range (1,len(L),2):
    L.pop(p)
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 4, in <module>
    L.pop(p)
IndexError: pop index out of range
```

[   ]

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

IndexError 4

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
 1  def exist(prevRes, i):
 2      if i > 0 and i <= len(prevRes):
 3          return prevRes[i];
 4      else:
 5          return 1;
 6
 7
 8  def pascal(n):
 9      prevRes = [];
10      res = [];
11      for i in range(n+1):
12          for j in range(i+1):
13              res[i] += exist(prevRes, i) + exist(prevRes, i-1);
14          return res;
15
16  print(pascal(0))
17
```

When run, this script produces the following error:

```
  File "script.py", line 15, in <module>
    print(pascal(0))
  File "script.py", line 12, in pascal
    res[i] += exist(prevRes, i) + exist(prevRes, i-1);
IndexError: list index out of range
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for

the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes
○ No
○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
def exist(prevRest, i):
    if i > 0 and i <= len(prevRes):
        return prevRes[i];
    else:
        return 1;


def pascal(n):
    prevRes = [];
    res = [];
    for i in range(n+1):
        for j in range(i+1):
            res[i] += exist(prevRes, i) +
exist(prevRes, i-1);
        return res;


print(pascal(0))
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 15, in <module>
    print(pascal(0))
  File "script.py", line 12, in pascal
    res[i] += exist(prevRes, i) + exist(prevRes,
i-1);
IndexError: list index out of range
```

[text box]

5. Did you learn anything new from the results of your Google search?

◯ Yes

◯ No

IndexError 5

~~1~~ 0 0 0

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
fib = []

def fibonacci(n):
    try:
        return fib[n]
    except:
        if n == 0:
            return 1

        if n == 1:
            return 1

        fib[n] = fibonacci(n - 1) + fibonacci(n - 2)
        return fib[n]

print(fibonacci(5))
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 5, in fibonacci
    return fib[n]
IndexError: list index out of range

During handling of the above exception, another exception occurred:

Traceback (most recent call last):
  File "script.py", line 5, in fibonacci
    return fib[n]
IndexError: list index out of range

During handling of the above exception, another exception occurred:

Traceback (most recent call last):
  File "script.py", line 5, in fibonacci
    return fib[n]
IndexError: list index out of range

During handling of the above exception, another exception occurred:

Traceback (most recent call last):
  File "script.py", line 5, in fibonacci
    return fib[n]
IndexError: list index out of range

During handling of the above exception, another exception occurred:

Traceback (most recent call last):
  File "script.py", line 15, in <module>
    print(fibonacci(5))
  File "script.py", line 12, in fibonacci
    fib[n] = fibonacci(n - 1) + fibonacci(n - 2)
  File "script.py", line 12, in fibonacci
    fib[n] = fibonacci(n - 1) + fibonacci(n - 2)
  File "script.py", line 12, in fibonacci
    fib[n] = fibonacci(n - 1) + fibonacci(n - 2)
  [Previous line repeated 1 more time]
IndexError: list assignment index out of range
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

[ ]

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
fib = []

def fibonacci(n):
    try:
        return fib[n]
    except:
        if n == 0:
            return 1
        if n == 1:
            return 1

        fib[n] = fibonacci(n - 1) + fibonacci(n - 2)
        return fib[n]

print(fibonacci(5))
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 5, in fibonacci
    return fib[n]
IndexError: list index out of range


During handling of the above exception, another
exception occurred:


Traceback (most recent call last):
  File "script.py", line 5, in fibonacci
    return fib[n]
IndexError: list index out of range


During handling of the above exception, another
exception occurred:


Traceback (most recent call last):
```

```
  File "script.py", line 5, in fibonacci
    return fib[n]
IndexError: list index out of range

During handling of the above exception, another
exception occurred:

Traceback (most recent call last):
  File "script.py", line 5, in fibonacci
    return fib[n]
IndexError: list index out of range

During handling of the above exception, another
exception occurred:

Traceback (most recent call last):
  File "script.py", line 15, in <module>
    print(fibonacci(5))
  File "script.py", line 12, in fibonacci
    fib[n] = fibonacci(n - 1) + fibonacci(n - 2)
```

```
File "script.py", line 12, in fibonacci
  fib[n] = fibonacci(n - 1) + fibonacci(n - 2)
File "script.py", line 12, in fibonacci
  fib[n] = fibonacci(n - 1) + fibonacci(n - 2)
[Previous line repeated 1 more time]
IndexError: list assignment index out of range
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

NameError 1

1 0 0 0

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  def closest(d, what, here):
2      import math
3      ans = {}
4      if what == 'gas':
5          for point in d:
6              if d[point] == 'gas':
7                  x = here[0]-point[0]
8                  y = here[1]-point[1]
9                  distance = math.sqrt(math.pow(x,2)+math.pow(y,2))
10                 ans.update({point:distance})
11     elif what == 'food':
12         if key in d.value('food'):
13             x = here[0]-key[0]
14             y = here[1]-key[1]
15             distance = math.sqrt(math.pow(x,2)+math.pow(y,2))
16             ans.update({key:distance})
17     else:
18         return None
19     return(min(ans[key]))
20 d =    {(3,1):'gas', (1,4):'gas', (2,1):'food', (5,5):'food'}
21 closest(d,"gas",(2,2))
22
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 21, in <module>
    closest(d,"gas",(2,2))
  File "script.py", line 19, in closest
    return(min(ans[key]))
NameError: name 'key' is not defined
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```
def closest(d, what, here):
    import math
    ans = {}
    if what == 'gas':
        for point in d:
            if d[point] == 'gas':
                x = here[0]-point[0]
                y = here[1]-point[1]
                distance =
math.sqrt(math.pow(x,2)+math.pow(y,2))
                ans.update({point:distance})
```

```python
        elif what == 'food':
            if key in d.value('food'):
                x = here[0]-key[0]
                y = here[1]-key[1]
                distance =
math.sqrt(math.pow(x,2)+math.pow(y,2))
                ans.update({key:distance})
        else:
            return None
    return(min(ans[key]))
d =      {(3,1):'gas', (1,4):'gas', (2,1):'food',
(5,5):'food'}
closest(d,"gas",(2,2))
```

Error message:
```
Traceback (most recent call last):
  File "script.py", line 21, in <module>
    closest(d,"gas",(2,2))
  File "script.py", line 19, in closest
    return(min(ans[key]))
```

```
NameError: name 'key' is not defined
```

5. Did you learn anything new from the results of your Google search?

○ Yes
○ No

NameError 2

~~1000~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  def first():
2      door = 'open'
3      print(door)
4  def second():
5      roof = 'off'
6      print(roof)
7      print(door)
8  switch = 'on'
9  first()
10 second()
11
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 10, in <module>
    second()
  File "script.py", line 7, in second
    print(door)
NameError: name 'door' is not defined
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error

has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
def first():
    door = 'open'
    print(door)
def second():
    roof = 'off'
    print(roof)
    print(door)
switch = 'on'
first()
second()
```

Error message:
```
Traceback (most recent call last):
  File "script.py", line 10, in <module>
    second()
  File "script.py", line 7, in second
    print(door)
NameError: name 'door' is not defined
```

[   ]

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

NameError 3

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
 1  def subtreesum(t):
 2      lst = []
 3      def subt(t):
 4          nonlocal lst
 5          if is_leaf(t):
 6              return root(t)
 7          else:
 8              lst += [max(treesum(t),
 9                          max([subt(x) for x in branches(t)]))]
10          return max(lst)
11      return subt(t)
12
13  x = tree(-1, [tree(1),
14               tree(-2),
15               tree(3, [tree(-4),
16                        tree(-5)])])
17  subtreesum(x)
18
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 13, in <module>
    x = tree(-1, [tree(1),
NameError: name 'tree' is not defined
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for

the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

◯ Yes
◯ No
◯ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```
[                                                    ]
[                                                    ]
[                                                    ]
[                                                    ]
```

3. Please copy and paste the specific text and/or code
snippet that contains the information you found helpful:

```
[                                                    ]
[                                                    ]
[                                                    ]
[                                                    ]
[                                                    ]
[                                                    ]
```

4. After performing your search, what do you think needs to
be fixed in the above Python code so that it runs without
producing errors? You may answer with a text explanation, or
by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting
error message:

Python code:

```python
def subtreesum(t):
    lst = []
    def subt(t):
        nonlocal lst
        if is_leaf(t):
            return root(t)
        else:
            lst += [max(treesum(t),
                     max([subt(x) for x in
branches(t)]))]
            return max(lst)
    return subt(t)

x = tree(-1, [tree(1),
           tree(-2),
           tree(3, [tree(-4),
                 tree(-5)])])
subtreesum(x)
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 13, in <module>
    x = tree(-1, [tree(1),
NameError: name 'tree' is not defined
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

NameError 4

1 0 0 0

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1  def deck(suits,numbers):
2      return [[x,y] for x in suits and y in numbers]
3
4  w=deck(['s','c'],[1,2,3])
5
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 4, in <module>
    w=deck(['s','c'],[1,2,3])
  File "script.py", line 2, in deck
    return [[x,y] for x in suits and y in numbers]
NameError: name 'y' is not defined
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

[ ]

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting

error message:

Python code:

```
def deck(suits, numbers):
    return [[x,y] for x in suits and y in numbers]

w=deck(['s','c'],[1,2,3])
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 4, in <module>
    w=deck(['s','c'],[1,2,3])
  File "script.py", line 2, in deck
    return [[x,y] for x in suits and y in numbers]
NameError: name 'y' is not defined
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

NameError 5

1000

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1  l = [1,2,3,4]
2  y = random.randint(1, len(l))
3  print(x)
4
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 2, in <module>
    y = random.randint(1, len(l))
NameError: name 'random' is not defined
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```


```

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

```



```

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:
```python
l = [1,2,3,4]
y = random.randint(1, len(l))
print(x)
```

Error message:
```
Traceback (most recent call last):
  File "script.py", line 2, in <module>
    y = random.randint(1, len(l))
NameError: name 'random' is not defined
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

AttributeError 1

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
 1  s = "0..\n.00\n"
 2
 3  coords = []
 4  coord_strs = s.split('\n')
 5  x = 0
 6  y = 0
 7  for i in coord_strs:
 8          if i == '':
 9                  continue
10          coord_chrs = coord_strs.split('.')
11          for c in i:
12                  if c == "0":
13                          coords.append((x,y))
14                          x += 1
15                          continue
16                  elif c == '.':
17                          x += 1
18                          continue
19                  y += 1
20                  x = 0
21                  continue
22  if len(coords) == 0:
23          print(None)
24  print(coords)
25
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 10, in <module>
    coord_chrs = coord_strs.split('.')
AttributeError: 'list' object has no attribute 'split'
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

◯ Yes

◯ No

◯ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without

producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
s = "0..\n.00\n"

coords = []
coord_strs = s.split('\n')
x = 0
y = 0
for i in coord_strs:
        if i == '':
                continue
        coord_chrs = coord_strs.split('.')
        for c in i:
                if c == "0":
                        coords.append((x,y))
```

```
                x += 1
                continue
            elif c == '.':
                x += 1
                continue
            y += 1
            x = 0
            continue
if len(coords) == 0:
        print(None)
print(coords)
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 10, in <module>
    coord_chrs = coord_strs.split('.')
AttributeError: 'list' object has no attribute
'split'
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

AttributeError 2

1 0 0 0

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
1  class Mint:
2      current_year = 2015
3
4      def __init__(self):
5          self.update()
6
7      def create(self, kind):
8          self.year = Mint.year
9          return self.kind
10
11     def update(self):
12         Mint.year = Mint.current_year
13
14 class Coin:
15     def __init__(self, year):
16         self.year = year
17
18     def worth(self):
19         age = Coin.year - Mint.current_year
20         Coin.worth = cents + 1*age
21
22 class Nickel(Coin):
23     cents = 5
24
25 class Dime(Coin):
26     cents = 10
27 mint = Mint()
28 mint.year
29 dime = mint.create(Dime)
30 dime.year
31
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 29, in <module>
    dime = mint.create(Dime)
  File "script.py", line 9, in create
    return self.kind
AttributeError: 'Mint' object has no attribute 'kind'
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

[   ]

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[   ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
class Mint:
    current_year = 2015

    def __init__(self):
        self.update()

    def create(self, kind):
        self.year = Mint.year
        return self.kind

    def update(self):
```

```python
        Mint.year = Mint.current_year

class Coin:
    def __init__(self, year):
        self.year = year

    def worth(self):
        age = Coin.year - Mint.current_year
        Coin.worth = cents + 1*age

class Nickle(Coin):
    cents = 5

class Dime(Coin):
    cents = 10
mint = Mint()
mint.year
dime = mint.create(Dime)
dime.year
```

<u>Error message:</u>

```
Traceback (most recent call last):
  File "script.py", line 29, in <module>
    dime = mint.create(Dime)
  File "script.py", line 9, in create
    return self.kind
AttributeError: 'Mint' object has no attribute
'kind'
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

AttributeError 3

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1  def p(num_list):
2      if len(num_list) == 0:
3          return ([], [])
4
5      else:
6          first = num_list[0]
7          rest = num_list[1:]
8          r1=p(rest)
9          r2 =p(rest)
10
11         if first%2 == 0:
12             r1.append(first)
13         else:
14             r2.append(first)
15         return (r1,r2)
16
17
18
19 p([4,7,3,11,12,16,7])
20
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 19, in <module>
    p([4,7,3,11,12,16,7])
  File "script.py", line 8, in p
    r1=p(rest)
  File "script.py", line 8, in p
    r1=p(rest)
  File "script.py", line 8, in p
    r1=p(rest)
  [Previous line repeated 3 more times]
  File "script.py", line 14, in p
    r2.append(first)
AttributeError: 'tuple' object has no attribute 'append'
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```

```

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

```

```

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting

error message:

Python code:

```
def p(num_list):
    if len(num_list) == 0:
        return([], [])

    else:
        first = num_list[0]
        rest = num_list[1:]
        r1=p(rest)
        r2 =p(rest)

        if first%2 == 0:
            r1.append(first)
        else:
            r2.append(first)
        return (r1,r2)
```

```
p([4,7,3,11,12,16,7])
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 19, in <module>
    p([4,7,3,11,12,16,7])
  File "script.py", line 8, in p
    r1=p(rest)
  File "script.py", line 8, in p
    r1=p(rest)
  File "script.py", line 8, in p
    r1=p(rest)
  [Previous line repeated 3 more times]
  File "script.py", line 14, in p
    r2.append(first)
AttributeError: 'tuple' object has no attribute
'append'
```

```
[                                    ]
[                                    ]
[                                    ]
[                                    ]
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

TypeError 6

~~1000~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1   a = 4
2   b  = a
3   c = 'Hello'
4   d = '4'
5   e = 3.14
6   f = 2 == 1
7   g = [1, 2, 3]
8   h = g
9   i = c + d
10  j = c + str(a)
11  k = c + a
12
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 11, in <module>
    k = c + a
TypeError: can only concatenate str (not "int") to str
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error

has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes
○ No
○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```



```

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```
a = 4
b  = a
c = 'Hello'
d = '4'
e = 3.14
f = 2 == 1
g = [1, 2, 3]
h = g
i = c + d
j = c + str(a)
k = c + a
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 11, in <module>
    k = c + a
TypeError: can only concatenate str (not "int") to
str
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

TypeError 7

~~1 0 0 0~~

Consider the following code written in Python:

```
 1  def run_check(a):
 2      a = a+[a[-1]]
 3      b = [a[i]-a[i-1] for i in range(1,len(a))]
 4      c = [i for i in range(len(b)) if b[i]!=1]
 5      d = [-1]+c
 6      e = [(a[d[i]+1],a[d[i+1]]) for i in range(len(d)-1)]
 7      a.pop(-1)
 8      return
 9
10
11  a=[1, 2, 3, 4]
12  start,stop,length=run_check(a)
13
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 12, in <module>
    start,stop,length=run_check(a)
TypeError: cannot unpack non-iterable NoneType object
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```

```

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

```
```

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:
```
def run_check(a):
    a = a+[a[-1]]
```

```python
    b = [a[i]-a[i-1] for i in range(1,len(a))]
    c = [i for i in range(len(b)) if b[i]!=1]
    d = [-1]+c
    e = [(a[d[i]+1],a[d[i+1]]) for i in
range(len(d)-1)]
    a.pop(-1)
    return


a=[1, 2, 3, 4]
start,stop,length=run_check(a)
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 12, in <module>
    start,stop,length=run_check(a)
TypeError: cannot unpack non-iterable NoneType
object
```

[text box]

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

TypeError 8

~~1 0 0 0~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```python
 1  def show_grid(grid, live = '0', dead = '.'):
 2
 3      stringGrid = ''
 4      for x in grid:
 5          for y in x:
 6              if y == True:
 7                  stringGrid = live
 8              else:
 9                  stringGrid = dead
10          stringGrid.join()
11      return stringGrid
12
13  show_grid([[True,False,False], [False,True,True]])
14
```

When run, this script produces the following error:

```
Traceback (most recent call last):
  File "script.py", line 13, in <module>
    show_grid([[True,False,False], [False,True,True]])
  File "script.py", line 10, in show_grid
    stringGrid.join()
TypeError: join() takes exactly one argument (0 given)
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error

has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```

```

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
def show_grid(grid, live = 'O', dead = '.'):

    stringGrid = ''
    for x in grid:
        for y in x:
            if y == True:
                stringGrid = live
            else:
                stringGrid = dead
        stringGrid.join()
    return stringGrid


show_grid([[True,False,False], [False,True,True]])
```

Error message:

```
Traceback (most recent call last):
  File "script.py", line 13, in <module>
    show_grid([[True,False,False],
[False,True,True]])
  File "script.py", line 10, in show_grid
```

```
    stringGrid.join()
TypeError: join() takes exactly one argument (0
given)
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

SyntaxError 6

~~1000~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1  n = 15
2      print (n)
3      n = n ** 2
4
```

When run, this script produces the following error:

```
  File "script.py", line 2
    print (n)
    ^
IndentationError: unexpected indent
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your**

Google query, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:
```
n = 15
    print (n)
```

```
        n = n ** 2
```

Error message:

```
  File "script.py", line 2
    print (n)
    ^
```

```
IndentationError: unexpected indent
```


5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

SyntaxError 7

~~1000~~

Reminder: start all your Google search queries with "site:stackoverflow.com"!

Consider the following code written in Python:

```
1    def has_digit(n,k):
2        y = 0
3        string = str(n)
4        digit = str(k)
5        has = False
6        if digit in string:
7            has = True
8        return has
9    z = 0
10   count = 0
11   while z < 10:
12       if has_digit(n,z):
13           count = count + 1
14       z = z + 1
15   return count
16
```

When run, this script produces the following error:

```
  File "script.py", line 1
    def has_digit(n,k):
    ^
IndentationError: unexpected indent
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes

○ No

○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

```
```

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

[ ]

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

<u>Python code:</u>

```
def has_digit(n,k):
```

```python
        y = 0
        string = str(n)
        digit = str(k)
        has = False
        if digit in string:
            has = True
        return has

    z = 0
    count = 0
    while z < 10:
        if has_digit(n,z):
            count = count + 1
        z = z + 1
    return count
```

Error message:

```
  File "script.py", line 1
    def has_digit(n,k):
    ^
IndentationError: unexpected indent
```

```
┌─────────────────────────────────┐
│                                 │
│                                 │
│                                 │
│                                 │
│                                 │
└─────────────────────────────────┘
```

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No

SyntaxError 8

~~1 0 0 0~~

Consider the following code written in Python:

```python
 1  def max_sement_sum(L):
 2
 3  max_so_far = 0
 4  for lower in range(len(L)):
 5      for upper in range(lower, len(L)):
 6          sum = 0
 7          for i in range(lower, upper +1):
 8              sum = sum + L[i]
 9          max_so_far = max(max_so_far, sum)
10      return max_so_far
11
12
13  L = [2, -5, 8, -6, 10]
14  print(max_sement_sum(L))
15
```

When run, this script produces the following error:

```
  File "script.py", line 3
    max_so_far = 0
              ^
IndentationError: expected an indented block
```

Using Google as your search engine, try to find a Stack Overflow post that you think contains either a related fix for the given error, or an explanation that identifies why the error

has occurred.

Remember to **add "site:stackoverflow.com" to your Google query**, as this limits the results to only Stack Overflow posts.

1. Do you think you already know how to fix this error?

○ Yes
○ No
○ Maybe

2. Once you find a fix and/or explanation, please copy and paste the link of the Stack Overflow post from which you found that information:

3. Please copy and paste the specific text and/or code snippet that contains the information you found helpful:

4. After performing your search, what do you think needs to be fixed in the above Python code so that it runs without producing errors? You may answer with a text explanation, or by rewriting the line(s) of code that need changing.

For ease of reference, here is the Python code and resulting error message:

Python code:

```python
def max_sement_sum(L):

max_so_far = 0
for lower in range(len(L)):
    for upper in range(lower, len(L)):
        sum = 0
        for i in range(lower, upper +1):
            sum = sum + L[i]
        max_so_far = max(max_so_far, sum)
    return max_so_far



L = [2, -5, 8, -6, 10]
print(max_sement_sum(L))
```

Error message:
```
  File "script.py", line 3
    max_so_far = 0
              ^
IndentationError: expected an indented block
```

[   ]

5. Did you learn anything new from the results of your Google search?

○ Yes

○ No