## Things to Know (Info) and Errata

Introduction to Computing and Programming in Python, A Multimedia Approach, Second Edition

Chapters 1-2

Chapter 1	1	
Info	Pg 8	A bit is shorthand notation for a binary digit which is either a 0 or 1, a representation used to explain how data is stored in binary in memory. The author uses the terminology that "a wire is a bit". In reality, the wire has a voltage which represents either a 1 or 0. The explanation in Figure 1.3 is more accurate and precise.
Chapter 2	2	
Info	Pg 20	First Common Bug: JES does take a while to load but it will load faster for subsequent openings for the current login session. It may be slow opening again the next login. While you are waiting for JES to open, you will not see anything on the screen letting you know that it is in progress.
Info	Pg 23	The text introduces the ord function (for ordinal) showing the mapping of the letter "A" to the ASCII value of 65. This was also mentioned on page 10. All of the characters on the keyboard are also mapped to ASCII encodings, e.g., "B" maps to 66, "C" maps to 67, etc. The function that takes the ASCII encoding back to the character is the chr function: $chr(65) \rightarrow "A"$ , $chr(66) \rightarrow "B"$ , etc.
Info	Pg 23	At the end of the debugging tip, the author refers to the global name pickAFile – it is actually defined in the paragraph following the reference.
Error	Pg 23	When clicking "Cancel" in the window that opens after calling print pickAFile(), the text says that it returns an empty string when in fact it returns the special value "None". If just calling pickAFile(), there is no visible return in the Command Area (the empty string was returned).
Error	Pg 24-25	The last paragraph on page 24 refers the reader to figure 2.3 to see .wav files but the figure on page 25 only shows .jpg files in the author's folder.
Error	Pg 25	In the last sentence in the second to last paragraph, the function "show" is at the beginning of the sentence and capitalized – it should be lower case.
Info	Pg 27	Sound files provided by the author are located in the textMedia folder available for download on the course Resources page.
Error	Pg 27-28	On page 27, the result of >>>print sound is on the next page (it would be better if they were together on the same page.  On page 28, if you print a sound (print makeSound("somesound.wav")) the text states that it returns "Sound of length ####" What is actually returned is
		the filename (including path) and the number of samples. For example:  "Sound file: C:\JES43\Practice\Sounds\yep.wav number of samples: 45708"
Info	Pg 28-29	On page 28, the author shows that a variable can be assigned a number (12) and then assigned a text string ("Mark"). Python is a programming language that allows that kind of assignment. On page 29, he shows that the change in the type of data changes the outcome. Many other programming languages only allow variables to be assigned one type of data. You need to be careful how you use variables and it is best to use different variables for different types of data.

These errata and informational notes were identified at the United States Military Academy, West Point, NY. Any corrections should be forwarded to the IT105 (Introduction to Computing and Information Technology) Course Director. (Last updated: 12 Aug 2013)

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Info/Error	Pg 30	On line 6, the path/filename continues on a second line. This is NOT allowed in Python and only occurs because of the width of the text page. See the symbol in Program 42 used to show this and the "Making It Work Tip" on page 118 in the text for an explanation – it should have been noted here, too.
Info	Pg 30	In the "Common Bug", note the difference between ">>>print myfile" which outputs the value of the variable without the quotes and ">>>myfile" which outputs the value of the variable with the quotes. You should also note that JES prints the value of the variable with double backslashes, "\\", instead of single backslashes in the URL – the double backslash is one of those backslash-and-character combinations mentioned by the author that is used to represent the backslash. (it is not an error!)
Info	Pg 31	Note the tip near the top of the page: Try Every Recipe! This is the key to learning the material in this course.
Info	Pg 32	If you want to define the procedure hello() in the Command Area, you must start with the line "def hello():" press enter once, tab once (or space twice), type 'print "Hello" ' (no single quotes) and then press Enter 2x to complete the definition and return to the command prompt. Only then can you run the function by typing hello(). This is explained on page 55 in the text.
Info	Pg 32	There is no need to save each function as a separate file such as the textbook shows for pickAndShow.py. A suggested way of saving functions is to create a file named for the textbook chapter, such as Chapter2.py, and keep all code from that chapter in that file. See note on pae 64 at the top of the page.
Info	Pg 32	When you have typed a program into a file and you press "Load", the WHOLE file is loaded into memory. Any function in the program can then be run at the command prompt.

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