COMP 141

Intro Wrap-Up

Rhodes College

Announcements

- Program 1 has been assigned
  - Details on course website
  - Due on Sept. 5th by 11:55pm – **upload to Moodle**

Review: Data Types

- Integers (int)
  - Whole numbers; may be negative
- Floating point numbers (float)
  - Any number with a decimal point; may be negative
- Strings
  - Any sequences of letters, numbers, or punctuation
  - String literals are always surrounded by quotation marks

Input from the keyboard

- For integers:
  ```
  variable = int(input("Prompt"))
  ```
- For floats:
  ```
  variable = float(input("Prompt"))
  ```
- For strings:
  ```
  variable = input("Prompt")
  ```

```
variable = input("Prompt")
```
- When Python sees an input statement, the program pauses.
- The "prompt" is displayed on the screen.
- The user types something at the keyboard.
  - What the user types must be of the right data type.
- After the user presses ENTER, whatever the user types is placed into the variable.
- Program continues on the next line.

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Practice from Last Time

1. Modify your food program (burger and fries) to prompt the user for the price of a burger and the price of fries instead of having those values hard-coded in.

2. Write a short program (new file) that will calculate the proper tip on a bill.
   - Prompt the user for the total cost of the bill.
   - Assume you are leaving an 18% tip.
   - Calculate the total tip for the bill.
   - Output the tip amount
   - If you're done early, prompt the user for the tax rate, then use it to calculate the total cost of the bill with tax and tip.

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String Formatting

- Code in Box.com folder – link on website
  - formatPrintInput.py
- For more information about string formatting, see Section 7.2 and 7.4 in Zybook

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Terminology

- A *literal* is a piece of data that you type directly into your program's code.
  - Ex: 6, 9.25, "Blah blah blah"
- A *variable* is a placeholder for a piece of data.
- Every literal and variable in a program has a data type.

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Comments

- Lines that Python ignores completely.
- Used to tell a person reading your program what the program is doing.
- For any line that has a # sign, Python will ignore everything to the right of the #.

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End of Introductory Stuff!

- Key concepts: algorithms, variables, data types (int/float/string), comments, literals
- Python statements you should understand:
  - print
  - input
  - math calculations

In-Class Lab