Topic 2: Variables and Expressions

David H Smith IV

University of Illinois Urbana-Champaign

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Announcements

Things that are due tommorow night:

- Homework 2
- zyBooks Participation for Topic 2 (Part 2)
- Post-reading for Topic 2 (Part 2)

Review Polls

Poll Question: Whitespace

Which of the following are considered 'whitespace'?

A. Spaces
B. Tabs
C. Newlines
D. Spaces and Tabs
E. Spaces, Tabs, and Newlines

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Whitespace is any character that takes up vertical or horizontal space but does not produce an otherwise visible mark.

Topic Review: Escape Character

1. Treat backslash(\) as a special character
2. \means that the character *immediatly* following it should be treated differently.
   1. `\' and \"` escape quotes within a string.
   2. `\t` encodes a tab.
   3. `\n` encodes a new line.
   4. `\\` encodes a slash.

Objects and Mutability

Objects and Mutability

- **Name binding** $\rightarrow$ Process of associating the variable name with the object.
- When instantiated each object gets and id.
- To check the id of an object call the `id` function and pass the variable name that references the object.

Floating Points

Poll Question:

What is printed to the screen when the user types in `1`.

```
x = input()
y = float(x)
print(y)
```

A. 1
B. 1.0
C. ValueError
D. Other error

Poll Question

What will the output be if the user types in `4.5` then `1`?

```
x = int(input())
y = int(input())
z = x + y
print(z)
```

A. 5.5
B. 6.0
C. ValueError
D. 6

Poll Question:

What is the result of running the following code when the user types in `4.5` and `1`?

```
x = int(float(input()))
y = float(input())
z = x + y
print(z)
```

A. 5
B. 5.0
C. 5.5
D. 6.0

Poll Question: Printing Floating Points

If the user types in `2.7182818284` which of the following string formatting function calls will produce `2.718` when replacing it with the triple question marks?

```
x = float(input())
print(???)
```

A. `"{:.3f}".format(x)`

B. `"{.3f}".format(x)`

C. `"{:.5}".format(x)`

D. `format("{:.3f}", x)`

E. `"{:.4}".format(x)`

Poll Question: Python Literals

Which of the following is not a valid Python literal?

A. 1.00001
B. 1E-7
C. 1,097
D. -3.00
E. '\'\''

Variables

Poll Question: Python Naming

Which are legal python names?

1. `____`
2. `12monkeys`
3. `testing123`

A. 1 and 2
B. 1 and 3
C. 2 only
D. 1, 2, and 3

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