Level 2: Booleans & Variables

Access the Tutorial and start at “Lesson 5: Variables”

Questions

1. Complete “Lesson 5: Variables – Save a Value” by typing the sample commands in the black area of the IDE.

a. What do you get if you type puppies / 3?

I got the answer 12

b. Why doesn’t typing kittens / 3 work?

Kitten isn’t an assigned variable.

2. Complete “Lesson 5: Variables – Assign a New Value” by typing the sample commands in the black area of the IDE.

a. Explain how the following sequence of commands works:

• puppies = 36

puppies is equal to 6\*6 which is 36 so it will be true.

• puppies = puppies / 6

36 divided by 6 will be 6

• puppies

puppies will be equal to 36

3. Read through “Lesson 5: Variables – Rules”.

4. Complete “Lesson 5: Variables – Math Operators” by typing the sample commands in the black area of the IDE.

a. Explain what happens for following sequence of commands:

• colour = “red”

The variable colour has been assigned red

• puppies = 36

Puppies is already equal to 36 so it is true.

• colour + puppies

colour is red and puppies is 6\*6 so it is 6\*6red

5. Complete “Lesson 5: Variables – String Operators” by typing the sample commands in the black area of the IDE.

a. Explain why the following commands give different results:

• Color + day \* fishes

• ( Color + day ) \* fishes

There is order of operations

6. Complete “Lesson 5: Variables – Indexes” by typing the sample commands in the black area of the IDE.

a. What is the index of ‘r’ in “watermelon”?

4

b. Write an expression using mynumber to return ‘r’

t

7. Complete “Lesson 5: Variables – Assignments or Comparisons” by typing the sample commands in the black area of the IDE.

a. What is the difference between “=” and “==”?

= is saying blank is equal to blank. == is saying is blank equal to blank.

b. Create your own mnemonic to remember this difference.

= is a statement and == is a question.

8. Complete “Lesson 6: Errors – Examples” by typing the sample commands in the black area of the IDE.

a. What doesn’t “friend” + 5 work?

Python cannot concatenate objects of different types

b. What is the difference between int and str?

int is an integer

str is a string

9. Read through “Lesson 6: Errors – Parts of an Error Message”.

a. Is “friend” + 5 an example of:

i. A Syntax Error?

ii. A Runtime Error?

iii. A Logic Error?

Type error

10. Read through “Lesson 6: Errors – Fixing Errors”.

a. Use the ‘print’ command to print your first name and last name.

Print (“Thanujan”, “Nandakumar”)

11. Complete “Lesson 7: Booleans – Types of Data” by typing the sample commands in the black area of the IDE.

a. What is the value of: type(“True”)

Type True

b. What is the value of: type( True )

Class Bool

c. Why is the result different?

This is because of the quotations

12. Complete “Lesson 7: Booleans – What Is A Boolean” by typing the sample commands in the black area of the IDE.

a. Why do you think that having a Boolean data type is important in computer programming?

Important for making decisions in our code.

13. Complete “Lesson 7: Booleans – Trying Out Booleans” by typing the sample commands in the black area of the IDE.

a. Why do you think that there is no Maybe” Boolean data value in computer programming?

The answer always has to be wright or wrong and can’t be a maybe this makes the coding more exact.