Python training Feb 22nd 2018 batch assignment 1

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QUESTION: 01 Write the value and type of the expressions:

* x = 2 & y = 4
* Expression: x / y

Value: 0.5

Type: Arithmetic expression

* Expression: 6 / 4 \* 2

Value: 3.0

Type: Arithmetic expression

* x = 15 & y = 4.0
* Expression: x + y \* 2

Value: 23.0

Type: Arithmetic expression

* Expression: x / y

Value: 3.75

Type: Arithmetic expression

* Expression: y / x

Value: 0.26666666666666666

Type: Arithmetic expression

* Expression: y / 2

Value: 2.0

Type: Arithmetic expression

QUESTION: 02 Write a program to convert speed in km/hr to m/s. Use raw\_input() to take input(speed in km/hr) from the user. – (Submit your solution in .py extension)

Solution:

Code: kilometers = input("Enter value in kilometers: ")

conv\_fac = 0.621371

miles = kilometers \* conv\_fac

print('\n%0.2f kilometers is equal to %0.3f miles.\n' %(kilometers,miles))

.py file attached

QUESTION: 03 Write a program to prompt for a score between 0.0 and 1.0. If the score is between 0.0 and 1.0, print a grade using the following table: - – (Submit your solution in .py extension)

Score Grade:

* >= 0.9 A
* >= 0.8 B
* >= 0.7 C
* >= 0.6 D
* < 0.6 F

Solution:

Code:

try:

inscore = input("Enter a score between 0.0 and 1.0: ")

score = float(inscore)

except:

print("Please enter numeric value for score!")

exit()

if (score > 1.0) or (score < 0):

print("Score should be between 0.0 and 1.0!")

elif (score >= 0.9):

print("Grade is: A")

elif (score >= 0.8):

print("Grade is: B")

elif (score >= 0.7):

print("Grade is: C")

elif (score >= 0.6):

print("Grade is: D")

else:

print("Grade is: F")

.py file attached

QUESTION: 04 What gets printed?

* x = True
* y = False
* z = False

if x or y and z:

print "yes"

else:

print "no"

Answer: Yes

QUESTION: 05 Learn about the following pre-defined function:

* swapcase( )

The string swapcase() method converts all uppercase characters to lowercase and all lowercase characters to uppercase characters of the given string, and returns it.

Example:

Input: x="Python is powerful!"

Command: print(x.swapcase())

Output: pYTHON IS POWERFUL!

* upper( )

The string upper() method converts all lowercase characters in a string into uppercase characters and returns it.

Example:

Input: x="Python is powerful!"

Command: print(x.upper())

Output: PYTHON IS POWERFUL!

* lower( )

The string lower() method converts all uppercase characters in a string into lowercase characters and returns it.

Example:

Input: x="Python is powerful!"

Command: print(x.lower())

Output: python is powerful!

* title( )

The title() method returns a string with first letter of each word capitalized; a title cased string.

Example:

Input: x="Python is powerful!"

Command: print(x.title())

Output: Python Is Powerful!

* capitalize( )

In Python, the capitalize() method converts the first character of a string to capital (uppercase) letter.

Example:

Input: x="python is powerful!"

Command: print(x.capitalize())

Output: Python is powerful!

* help( )

The help() method calls the built-in Python help system.

The syntax of help() is:

help(object)

Example:

Command: help(print)

Output: Help on built-in function print in module builtins:

print(...)

print(value, ..., sep=' ', end='\n', file=sys.stdout, flush=False)

Prints the values to a stream, or to sys.stdout by default.

Optional keyword arguments:

file: a file-like object (stream); defaults to the current sys.stdout.

sep: string inserted between values, default a space.

end: string appended after the last value, default a newline.

flush: whether to forcibly flush the stream.

QUESTION: 06 What is Event and Count controlled loop explain with the help of an example? – (Submit your solution in .py extension)

Answer:

.py file attached

QUESTION: 07 How many seconds are in an hour? Use the interactive interpreter as a calculator and multiply the number of seconds in a minute (60) by the number of minutes in an hour (also 60).

Solution:

>>> 60\*60

3600