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Assignment 2

1. (3 points) Answer each of the following questions:
2. What does the following statement do?

x = random.randint(1, 100)

Assigns x a random integer from 1 to 100.

1. What does the following statement do?

print(random.random())

Returns a floating number between 0 and 1. (0 is inclusive and 1 is exclusive)

1. What is the result of evaluating the Boolean expression:

**7 > 3 and 3 <= 7**

True

1. What is the result of evaluating the Boolean expression:

**not(True or False)**

False

1. What is the result of evaluating the Boolean expression:

**(not True)and(not False)**

False

1. Write a compound Boolean expression that returns True if the value of the variable x is between 1 and 10 inclusive.

x = int(input("Enter a Value x: "))

x>= 1 and x<= 10

1. (4 points) Given the string "*Monty Python":*

(a) Write an expression to print the first character.

word= “Monty Python”

print(word [0])

(b) Write an expression to print the last character.

word= “Monty Python”

print(word [11])

(c) Write an expression including len to print the last character.

word= “Monty Python”

print(word [len(word)-1])

(d) Write an expression that prints "Monty".

word = “Monty Python”

print(word[0:5])

1. (2 points) Given the string "homebody":

(a) Write an expression using slicing to print "home".

word= “homebody”

print(word [:4])

(b) Write an expression using slicing to print "body".

word= “homebody”

print(word [4:])

(2 points) Given a variable s containing a string of even length:

(a) Write an expression to print out the first half of the string.

s[0:len(s)//2]

(b) Write an expression to print out the second half of the string.

s[-len(s)//2:]

1. (3 points) Given a variable stringS containing a string of odd length:

(a) Write an expression to print the middle character.

stringS[(len(stringS)-1)//2:(len(stringS)+2)//2]

(b) Write an expression to print the string up to but not including the middle character

(i.e., the first half of the string).

stringS[0:(len(stringS)//2)]

(c) Write an expression to print the string from the middle character to the end (not including the middle character).

stringS[(len(stringS)//2)+1:]

1. (2 points) Given the string s = *"What is your name?":*

(a) What is returned by s [ : : 2] ?

Wa syu ae

(b) What is returned by s [8: 2: -1]?

y si t

1. (2 points) Given the string variable x = *'acegikmoqsuwy'* and y = *'+bdfhjlnprtvxz' ,* use loop with indexing to create a string z that is the lowercase English alphabet.

x = "acegikmoqsuwy"

y = "bdfhjlnprtvxz”

z = ""

for i in range(len(x)):

z = z + x [ i ] + y [ i ]

print(z)

1. (1 point) What will be printed by the following?

x = *'This is* a *test.'*

*print(x* \* 3)

This is a test.This is a test.This is a test.