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Assignment 3

1. (3.5 points) Given: L = ['a', 7, 6, 5,"Jack",3.4], write a statement for each of the followings:
2. a statement that prints the first element in the list

L[::6]

1. a statement that prints the last element in the list

L[-1]

1. a statement that prints [7, 6, 5] ; use the slicing operator.

L[1:4]

1. a statement that prints ['a', 7, 6] ; use the slicing operator.

L[0:3]

1. a statement that prints ["Jack", 3.4]; use the slicing operator.

L[4:6]

1. a statement that creates a copy of list L; use the slicing operator.

Z = L[:]

print(Z)

1. A statement that prints all elements in List L in reverse order; use the slicing operator.

L[::-1]

1. (3.5 points) Given: L1 = [1,3,2] and L2 = [7,8], write a statement for each of the followings:
2. a statement that inserts 0 at the end of list L1; after inserting 0, L1 = [1,3,2,0].

L1.append(0)

1. a statement that removes the second elements of list L1; after removing the second element, L1 = [1, 3].

L1.remove(2)

1. A statement that inserts the elements in list L2 at the end of list L1; after inserting 7, and 8, L1 = [1,3,2,7,8].

joinedlist = L1 + L2

print(joinedlist)

1. A Statement that sort list L1; after sorting, L1 = [1,2,3].

L1.sort()

1. A statement that inserts 11 before index 2 in L1; after inserting 11, L1 = [1,3,11,2].

L1.insert(-1,11)

1. A statement to remove 3 from list L1; after removing 3, L1 = [1,2].

L1.remove(3)

1. A statement that reverses L1; after L1 reversed L1 = [2,3,1].

L1[::-1]

1. (3 points) Answer the followings:
2. Consider the following code:

list1=[1,2,99]

list2=list1

list3=list2

list1=list1.remove(1)

**print**(list3)

(a) What is printed?

[2, 99]

(b) How can you change the code so list3 is unchanged?

list1=[1,2,99]

list2=list1

list3=list2

print(list3)

list1=list1.remove(1)

1. Consider:

ListA = [1,2,3,4,5]

ListB = ListA

ListA[2] = 10

What is the value of ListB[2]?

10

1. Consider:

ListA = [1,2,3,4,5]

ListB = []

**for** num **in** ListA:

ListB.append(num)

ListA[2] = 10

(a) What is the value of ListB[2]?

3

(b) What is the value of ListB?

[1, 2, 3, 4, 5]

1. (4 points) Answer the following questions:
2. Write a statement that creates a dictionary containing the following key-value pairs:

'a' : 1

'b' : 2

'c' : 3

d = {‘a’ : 1, ‘b’ : 2, ‘c’ : 3}

1. Write a statement that creates an empty dictionary.

d = {}

1. Assume the variable dct references a dictionary. Write an if statement that determines whether the key 'James' exists in the dictionary. If so, display the value that is associated with that key. If the key is not in the dictionary, display a message indicating so.

If ‘James in dct:

print(dct(‘James’))

else:

print(“Word James is not found”)

1. Assume the variable dct references a dictionary. Write an if statement that determines whether the key 'Jim' exists in the dictionary. If so, delete 'Jim' and its associated value.

if ‘Jim’ in dct:

del dct[‘Jim’]

1. (4 points) Answer the following questions:
2. What will the following code display?

dct = {'Monday':1, 'Tuesday':2, 'Wednesday':3}

print(dct['Tuesday'])

2

1. What will the following code display?

dct = {'Monday':1, 'Tuesday':2, 'Wednesday':3}

print(dct.get('Monday', 'Not found'))

1

1. What will the following code display?

dct = {'Monday':1, 'Tuesday':2, 'Wednesday':3}

print(dct.get('Friday', 'Not found'))

Not found

1. What will the following code display?

stuff = {'aaa' : 111, 'bbb' : 222, 'ccc' : 333}

print(stuff['bbb'])

222

1. How do you delete an element from a dictionary?

del dictionary["key"]

1. How do you determine the number of elements that are stored in a dictionary?

#not important for this example (.’s to represent it)

my\_dict = {…......}

print("The length is".format(len(my\_dict)))

1. What will the following code display?

dct = {1:[0, 1], 2:[2, 3], 3:[4, 5]}

print(dct[3])

[4, 5]

1. What values will the following code display? (Don’t worry about the order in which they will be displayed.)

dct = {1:[0, 1], 2:[2, 3], 3:[4, 5]}

for k in dct:

print(k)

1

2

3