**HAUB SCHOOL OF BUSINESS**

**SAINT JOSEPH’S UNIVERSITY**

**DSS 615: Python Programming**

**Instructor: Michael Ghen**

**Module 1 Assignment**

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**Section 2.1**

**Q.31**

|  |  |  |
| --- | --- | --- |
|  | x | y |
| **x = 2** | 2 | name 'y' is not defined |
| **y = 3 \* x** | 2 | 6 |
| **x = y + 5** | 11 | 6 |
| **print(x + 4)** | 11 (output of print will be 15) | 6 |
| **y = y + 1** | 11 | 7 |

**Q.33**

a = 4

b = 5 \* a

print(a + b)

[RUN]

24

**Q.35**

num = 5

num \*= 2

print(num)

[RUN]

10

**Q.37**

totalMinutes = 135

hours = totalMinutes // 60

minutes = totalMinutes % 60

print(hours, minutes)

[RUN]

2 15

**Q.39**

a = 2

b = 3

a + b = c

print(b)

[RUN]

In Line 3,

‘c’ cannot be assigned to the operator/expression.

The right way would be, c=a+b

**Q.41**

0.05 = interest

balance = 800

print(interest \* balance)

[RUN]

In Line 1,

Any value cannot be assigned to the literal.

The right way would be, interest = 0.05

**Q.43**

int(10.75)

[RUN]

10

**Q.45**

abs(3 - 10)

[RUN]

7

**Q.47**

round(3.1279, 3)

[RUN]

3.128

**Q.49**

int(-a / 2)

[RUN]

-2

**Q.51**

abs(a - 5)

[RUN]

0

**Q.53**

round(a + .5)

[RUN]

6

**Q.55**

cost = cost + 5

cost += 5

**Q.57**

cost = cost / 6

cost /= 6

**Q.59**

sum = sum % 2

sum %= 2

**Q.61**

Calculate Profit The following steps calculate a company’s profit.

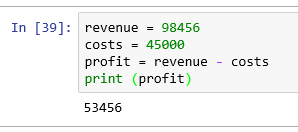
(a) Create the variable revenue and assign it the value 98,456.

(b) Create the variable costs and assign it the value 45,000.

(c) Create the variable profit and assign it the difference between the values of the

variables revenue and costs.

(d) Display the value of the variable profit.



revenue = 98456

costs = 45000

profit = revenue - costs

print (profit)

[RUN]

53456

**Q.63**

Discounted Price The following steps calculate the price of an item after a 30%

reduction.

(a) Create the variable price and assign it the value 19.95.

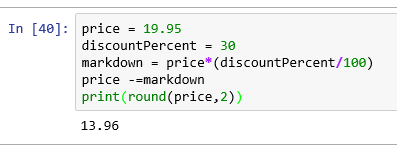
(b) Create the variable discountPercent and assign it the value 30.

(c) Create the variable markdown and assign it the value of (discountPercent divided

by 100) times the value of price.

(d) Decrease the value of price by markdown.

(e) Display the value of price (rounded to two decimal places).



price = 19.95

discountPercent = 30

markdown = price\*(discountPercent/100)

price -=markdown

print(round(price,2))

[RUN]

13.96

**Q.65**

Savings Account The following steps calculate the balance after three years when

$100 is deposited in a savings account at 5% interest compounded annually.

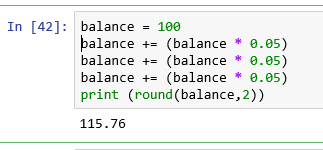
(a) Create the variable balance and assign it the value 100.

(b) Increase the value of the variable balance by 5%.

(c) Increase the value of the variable balance by 5%.

(d) Increase the value of the variable balance by 5%.

(e) Display the value of balance (rounded to two decimal places).



balance = 100

balance += (balance \* 0.05)

balance += (balance \* 0.05)

balance += (balance \* 0.05)

print (round(balance,2))

[RUN]

115.76

**Section 2.2**

**5.** "Python"[4]

[RUN]

‘o’

**7.** "Python"[-3]

[RUN]

'h'

**9.** "Python"[0:3]

[RUN]

'Pyt'

**11.** "Python"[:2]

[RUN]

'Py'

**13.** "Python"[-3:-2]

[RUN]

'h'

**15.** "Python"[2:-2]

[RUN]

'th'

**17.** "Python"[:]

[RUN]

'Python'

**19.** "Python".find("tho")

[RUN]

2

**21.** "Python".find("oh")

[RUN]

-1

**23.** "whippersnapper".rfind("pp")

[RUN]

**25.** "Mississippi".find("ss")

[RUN]

2

**27.** "colonel".find("k")

[RUN]

-1

**29.** "Knickknack".count('k')

[RUN]

3

**33.** "8 Ball".upper()

[RUN]

'8 BALL'

**35.** "Python"[3:len("Python")]

[RUN]

'hon'

**37.** "the artist".title()

[RUN]

'The Artist'

**39.** len("Grand Hotel"[:6].rstrip())

[RUN]

5

**43.** "Amazon".lower().count('a')

[RUN]

2

**45.** "King kONG".title()

[RUN]

'King Kong'

10

**Section 2.4**

**1.** print(states[1], states[-1])

[RUN]

Pennsylvania Hawaii

**3.** print(states[48], states[49])

[RUN]

Alaska Hawaii

**5.** print(states[0], states[-50])

[RUN]

Delaware Delaware

**7.** print(states.index("Alaska"))

[RUN]

48

**9.** print(states[states.index("Ohio")])

[RUN]

Ohio

**11.** states[0] = states[0].upper()

print(states[0])

[RUN]

DELAWARE

**13.** states.append(["Puerto Rico"])

print(states[50])

[RUN]

['Puerto Rico']

**15.** states.insert(0, "United States")

print(states[0])

[RUN]

United States

**17.** print(states[2:5])

[RUN]

['Pennsylvania', 'New Jersey', 'Georgia']

**19.** print(states[-5:-2])

[RUN]

['New Mexico', 'Arizona', 'Alaska']

**21.** print(states[:4])

[RUN]

['United States', 'DELAWARE', 'Pennsylvania', 'New Jersey']

**23.** print(states[-3:])

[RUN]

['Alaska', 'Hawaii', ['Puerto Rico']]

**25.** print(states[3:3])

[RUN]

[]

**27.** print(states[1:10][2])

[RUN]

New Jersey

**29.** print(states[-2:len(states)])

[RUN]

['Hawaii', ['Puerto Rico']]

**Section 3.1**

**9.** 3 \* a == 2 \* b

[RUN]

True

**11.** b <= 3

[RUN]

True

**13.** a \*\* (5 – 2) > 7

[RUN]

True

**15.** (a < b) or (b < a)

[RUN]

True

**17.** not((a < b) and (a < (b + a)))

[RUN]

False

**19.** ((a == b) and (a \* a < b \* b)) or ((b < a) and (2 \* a < b))

[RUN]

False

**21.** "9W" != "9w"

[RUN]

True

**23.** "Car" < "Train"

[RUN]

True

**25.** "99" > "ninety-nine"

[RUN]

False

**27.** ("Duck" < "pig") and ("pig" < "big")

[RUN]

False

**29.** not(('B' == 'b') or ("Big" < "big"))

[RUN]

False

**31.** "ty" in "Python"

[RUN]

False

**33.** isinstance(32, float)

[RUN]

False

**35.** isinstance(32., float)

[RUN]

True

**37.** "colonel".startswith('k')

[RUN]

False

**39.** "potato".endswith("oe")

[RUN]

False

**41.** True or False

[RUN]

True

**43.** not True

[RUN]

False

**Section 3.2**

**1.**

num = 4

if num <= 9:

print("Less than ten.")

elif num == 4:

print("Equal to four.")

[RUN]

Less than ten.

**3.**

print('a' < 'B' < 'c')

[RUN]

False

**5.**

a = 5

sentence = ""

if ((3 \* a) - 4) < 12:

sentence = "Remember, "

print(sentence + "tomorrow is another day.")

[RUN]

Remember, tomorrow is another day.

**7.**

a = 2

b = 3

c = 5

if (a \* b) < c:

b = 7

else:

b = (c \* a)

print(b)

[RUN]

10

**9.**

letter = input("Enter A, B, or C: ")

letter = letter.upper()

if letter == "A":

print("A, my name is Alice.")

elif letter == "B":

print("To be, or not to be.")

elif letter == "C":

print("Oh, say, can you see.")

else:

print("You did not enter a valid letter.")

(Assume the response is B.)

[RUN]

Enter A, B, or C: B

To be, or not to be.

**11.** a = 5

if (a > 2) and ((a == 3) or (a < 7)):

print("Hi")

[RUN]

Hi

**13.**

if "spam":

print("A nonempty string is true.")

else:

print("A nonempty string is false.")

[RUN]

A nonempty string is true.

**Section 3.4**

**1.** range(7, 11)

7, 8, 9, 10

**3**. range(2, 14, 3)

2, 5, 8, 11

**5.** range(6)

0, 1, 2, 3, 4, 5

**7.** range(11, 7, -1)

11, 10, 9, 8

**9.** 4, 9, 14, 19

range(4 , 24, 5)

**11.** -21, -20, -19, -18

range(-21, -17)

**13.** 20, 17, 14

range(20, 11, -3)

**15.** 5, 4, 3, 2, 1, 0

range(5, -1, -1)

**17.**

for i in range(1, 5):

print("Pass #" + str(i))

Pass #1

Pass #2

Pass #3

Pass #4

**19.**

num = 5

for i in range(num, 2 \* num - 2):

print(i)

[RUN]

5

6

7

**21.**

# chr(162) is a cents symbol

stringOfCents = ""

for i in range(1, 11):

stringOfCents += chr(162)

print(stringOfCents)

[RUN]

¢¢¢¢¢¢¢¢¢¢

**23.**

for j in range(2, 9, 2):

print(j)

print("Who do we appreciate?")

[RUN]

2

4

6

8

Who do we appreciate?

**25.**

number\_of\_sibilants = 0

word = "stargazers"

for ch in word:

if (ch == 's') or (ch == 'z'):

number\_of\_sibilants += 1

print(number\_of\_sibilants)

[RUN]

3

**27.**

word = "183651"

sumOfOddIndexes = 0

oddIndex = False

for ch in word:

if oddIndex:

sumOfOddIndexes += int(ch)

oddIndex = not oddIndex

print(sumOfOddIndexes)

[RUN]

15

**29.**

for ch in "Python":

continue

print(ch)

[RUN]

n

**31.**

numEvens = 0

sumOfEvens = 0

list1 = [2, 9, 6, 7, 12]

for num in list1:

if num % 2 == 0:

numEvens += 1

sumOfEvens += num

print(numEvens, sumOfEvens)

[RUN]

3 20