

Assignment Answer Sheet

Campus	Tyger Valley	Faculty	BSc information and technology
Module Code	ITAPA1-B11	Module Name	Python programing
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Lecturer Name	Mr Steve Lububu		

Declaration

"I declare that this assignment is my own original work except for source material explicitly acknowledged, and that the same or related material has not been previously, or is being simultaneously, submitted for this or any other course. I also acknowledge that I am aware of the Institution's policy and regulations on honesty in academic work as set out in the Pearson Institute of Higher Education Conditions of Enrolment, and of the disciplinary guidelines applicable to breaches of such policy and regulations."

Start writing from here

SECTION A

QUESTIONS

```
pythonProject2 - main.py
main.py x question 1 ITAPA1 x
1 # This is a sample Python script.
2 import matplotlib.pyplot as plt
3 import numpy as np
4
5 import pandas as pd
6 dff = pd.read_csv(r'c:\Users\glodi\Desktop\Stockprice.csv') # THIS WILL READ THE file that is located in my pc
7 ss = pd.DataFrame(dff)
8
9 print(dff) #THIS will print out the table of the stock price i saved on excel in CSV forma
10
11
12 # this will display thr highest and lowes values for amazone
13 print("\n\nthe highest Amazon stock price is :", dff['Amazon'].max())
14 print("the lowest Amazon stock price is :", dff['Amazon'].min())
15 # this will display the variance and the standard deviation and the mean of google
16 print("-----")
17 dff = dff[['Google'].mean(), dff['Google'].std(), dff['Google'].var()]
18 print("\nThe mesn values for google is :", dff[0])
19 print("The standard Deviation of google is :", dff[1])
20 print("The variance for google is :", dff[2])
21 print("=====")
22
23
24 def bar_graph():
25
26     da_te = dff[0].values
27     ss = np.arange(len(da_te))
28     w = 0.1
29     plt.bar(ss - w, dff['Amazon'].values, width=w, label='Amazon')
30     plt.bar(ss, dff['Google'].values, width=w, label='Google')
31     plt.bar(ss + w, dff['Facebook'].values, width=w, label='Facebook')
32     plt.xticks(ss, da_te)
33     plt.xlabel('Companies')
34     plt.ylabel('Stockprices')
35     plt.savefig("stockpricebar.png", bbox_inches="tight")
36     plt.show()
37
38
39 print(bar_graph())
40
bar_graph()
```

Version Control Run TODO Problems Debug Python Packages Python Console Terminal

Packages installed successfully: Installed packages: 'matplotlib' (today 3:12 PM)

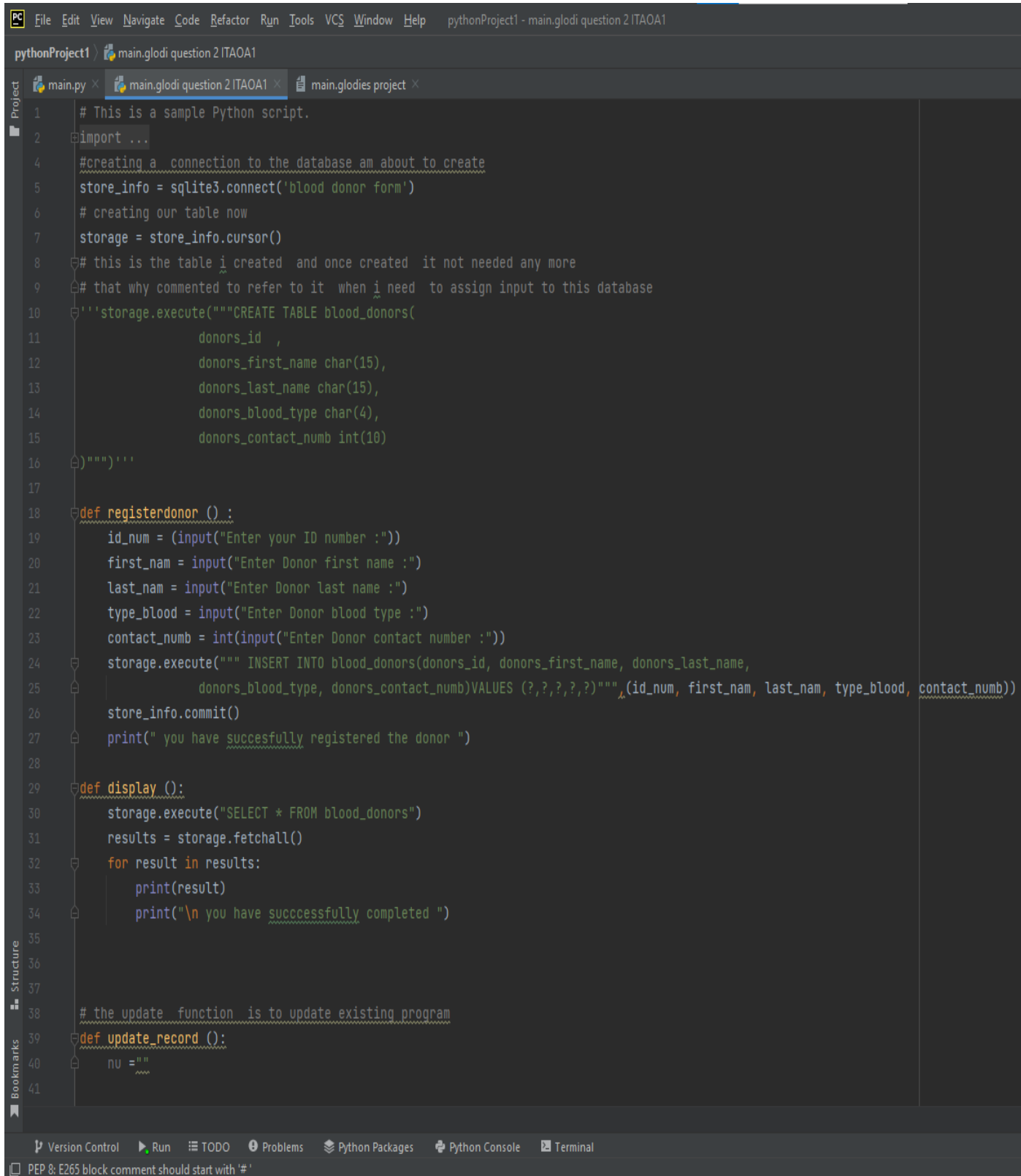
```
pythonProject2 > main.py
main.py x question 1 ITAPA1 x
bar_graphpt()
Run: main x
C:\Users\glodi\PycharmProjects\pythonProject2\venv\Scripts\python.exe C:/Users/glodi/PycharmProje

    date      Amazon      Google      Facebook
0    5/1/2021    890.6880    874.8818    789.048
1    5/2/2021    908.7792    882.3314    797.368
2    5/3/2021    908.1600    887.4142    798.720
3    5/4/2021    906.9600    898.2879    780.884
4    5/7/2021    902.8992    905.5338    787.540
5    5/8/2021    903.3120    898.3364    783.692
6    5/9/2021    914.6880    908.8415    787.748
7    5/10/2021   915.3600    904.0206    781.196
8    5/11/2021   907.3056    897.5604    781.612
9    5/14/2021   916.3200    903.5841    782.080
10   5/15/2021   920.3808    904.9615    780.884
11   5/16/2021   922.5600    911.8000    780.572
12   5/17/2021   916.5120    907.5999    769.600
13   5/18/2021   907.0080    893.3700    752.544
14   5/21/2021   924.3264    903.5259    771.914
15   5/22/2021   925.4400    906.9500    770.016
16   5/23/2021   936.0100    919.4824    772.304
17   5/24/2021   936.9600    924.3906    772.252
18   5/25/2021   945.4560    928.6101    781.560
19   5/29/2021   955.2000    940.6090    791.596
20   5/30/2021   956.6496    941.2007    790.244
21   5/31/2021   960.0000    945.7694    794.040

the highest Amazon stock price is : 960.0
the lowest Amazon stock price is : 890.688
-----

The mesn values for google is : 908.5937090909093
The standard Deviation of google is : 18.499624063899986
The varience for google is : 342.2360905056275
=====
```

Question2



```
pythonProject1 - main.glodi question 2 ITAOA1
main.py x main.glodi question 2 ITAOA1 x main.glodies project x
1 # This is a sample Python script.
2 import ...
4 #creating a connection to the database am about to create
5 store_info = sqlite3.connect('blood donor form')
6 # creating our table now
7 storage = store_info.cursor()
8 # this is the table i created and once created it not needed any more
9 # that why commented to refer to it when i need to assign input to this database
10 '''storage.execute("""CREATE TABLE blood_donors(
11     donors_id ,
12     donors_first_name char(15),
13     donors_last_name char(15),
14     donors_blood_type char(4),
15     donors_contact_numb int(10)
16 )""")'''
17
18 def registerdonor () :
19     id_num = (input("Enter your ID number :"))
20     first_nam = input("Enter Donor first name :")
21     last_nam = input("Enter Donor last name :")
22     type_blood = input("Enter Donor blood type :")
23     contact_numb = int(input("Enter Donor contact number :"))
24     storage.execute(""" INSERT INTO blood_donors(donors_id, donors_first_name, donors_last_name,
25     donors_blood_type, donors_contact_numb)VALUES (?,?,?,?,?)""",(id_num, first_nam, last_nam, type_blood, contact_numb))
26     store_info.commit()
27     print(" you have succesfully registered the donor ")
28
29 def display ():
30     storage.execute("SELECT * FROM blood_donors")
31     results = storage.fetchall()
32     for result in results:
33         print(result)
34     print("\n you have successfully completed ")
35
36
37
38 # the update function is to update existing program
39 def update_record ():
40     nu = ""
41
```

PEP 8: E265 block comment should start with '#'

```
pythonProject1 | main.gloidi question 2 ITAOA1

main.py | main.gloidi question 2 ITAOA1 | main.gloides project |
20 first_name = input("Enter Donor first name :")
21 last_name = input("Enter Donor last name :")
22 type_blood = input("Enter Donor blood type :")
23 contact_numb = int(input("Enter Donor contact number :"))
24 storage.execute(""" INSERT INTO blood_donors(donors_id, donors_first_name, donors_last_name,
25 donors_blood_type, donors_contact_numb)VALUES (?, ?, ?, ?, ?)""" , (id_num, first_name, last_name, type_blood, contact_numb))
26 store_info.commit()
27 print(" you have sucessfully registered the donor ")
28
29 def display():
30     storage.execute("SELECT * FROM blood_donors")
31     results = storage.fetchall()
32     for result in results:
33         print(result)
34     print("\n you have sucessfully completed ")
35
36
37
38 # the update function is to update existing program
39 def update_record():
40     nu = ""
41
42     #this query will delete record based on the row number the user input
43     def delete():
44         storage.execute("SELECT * FROM blood_donors")
45         pre_results = storage.fetchall()
46         for previews in pre_results:
47             print(previews)
48         num_id = input("please enter the ID number of the donor's record you with to permently delete")
49         storage.execute("DELETE from blood_donors WHERE donors_id = ?", (num_id))
50         storage.commit()
51         print(previews)
52
53
54 # this is the exit function which will exit the program when called unpon
55 def exist():
56     print("you have sucessfully exited the program")
57     sys.exit()
58
59
```

PEP 8: E265 block comment should start with '#'

```
pythonProject1 - main.glodi question 2 ITAOA1

pythonProject1 > main.glodi question 2 ITAOA1

main.py x main.glodi question 2 ITAOA1 x main.glodies project x

53
54 # this is the exit function which will exit the program when called upon
55 def exist():
56     print("you have successfully exited the program")
57     sys.exit()
58
59
60
61 #this menu is designed to call the function based on the user choices
62 def mainmenu():
63     choice = 0
64     while choice != 1 or 2 or 3 or 4 or 5: # this will keep the user in the loops until they choose the correct choice
65         print("Blood Donation Form")
66         print("=====")
67         print("select one of the following actions\n")
68         print("1. Register a Donors")
69         print("2. Display registered Donors")
70         print("3. Update a donor record")
71         print("4. Delete s Donor record")
72         print("5. exit the sytem")
73         choice = int(input("ENTER OPTION :"))
74         if choice == 1:
75             print(registerdonor())
76         elif choice == 2:
77             print(display())
78         elif choice == 3:
79             print(update_record())
80         elif choice == 4:
81             print(dele_te())
82         elif choice == 5:
83             print(exist())
84         else:
85             print("INVALID CHOICE, CHOOSE AGAIN")
86
87
88
89 # START HERE
90 print(mainmenu())
91 #this close my data base connection
92 storage.close()

Structure
Bookmarks
Version Control Run TODO Problems Python Packages Python Console Terminal
PEP 8: E265 block comment should start with '#'
```

The screenshot shows the PyCharm IDE interface. The top toolbar includes menus like File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, and Help. The main editor window displays a Python file named `main.py` with the following code:

```
87
88
89 # START HERE
90 print(mainmenu())
91 #this close my data base connection
92 storage.close()
```

Below the editor, the Run console shows the execution of `main.py`. The output is as follows:

```
Run: main x
C:\Users\glodi\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/glodi/PycharmProjects/pythonProject1/main.py
Blood Donation Form
=====
select one of the following actions

1. Register a Donors
2. Display registered Donors
3. Update a donor record
4. Delete s Donor record
5. exit the sytem
ENTER OPTION : 1
Enter your ID number : kltxyid
Enter Donor first name : steve
Enter Donor last name : lububu
Enter Donor blood type : 0
Enter Donor contact number : 0704385843
you have succesfully registered the donor
None

Blood Donation Form
=====
select one of the following actions

1. Register a Donors
2. Display registered Donors
3. Update a donor record
4. Delete s Donor record
5. exit the sytem
ENTER OPTION :
```

At the bottom, the status bar shows a warning: "PEP 8: E265 block comment should start with '#'"


```
Run: main x
select one of the following actions

1. Register a Donors
2. Display registered Donors
3. Update a donor record
4. Delete s Donor record
5. exit the sytem
ENTER OPTION :2
(5879948765647, ' GLODI ', 'KALOMBO', 'A', 682546869)

you have successfully completed
('D1LXT16D9', 'GLODI', 'KALOMBO', 'A', 682546869)

you have successfully completed
('d1lxt16d9', 'glodi', 'kalombo', 'ab', 682546869)

you have successfully completed
('59ieujheujbd', 'papy', 'glodi', 'a', 7373553100)

you have successfully completed
(123456789, 'elvic', 'kalombo', 'b', 653452103)

you have successfully completed
('klxtyid', 'steve', 'lububu', 'b', 764355843)

you have successfully completed
None

Blood Donation Form
```

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PEP 8: E265 block comment should start with '#'

```
Run: main ×
C:\Users\glodi\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/glodi/PycharmProjects/pythonProject1/Blood Donation Form
=====
select one of the following actions

1. Register a Donors
2. Display registered Donors
3. Update a donor record
4. Delete s Donor record
5. exit the sytem
ENTER OPTION :5
you have successfully exited the program

Process finished with exit code 0
```