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Roll No: FA20-BSE-064

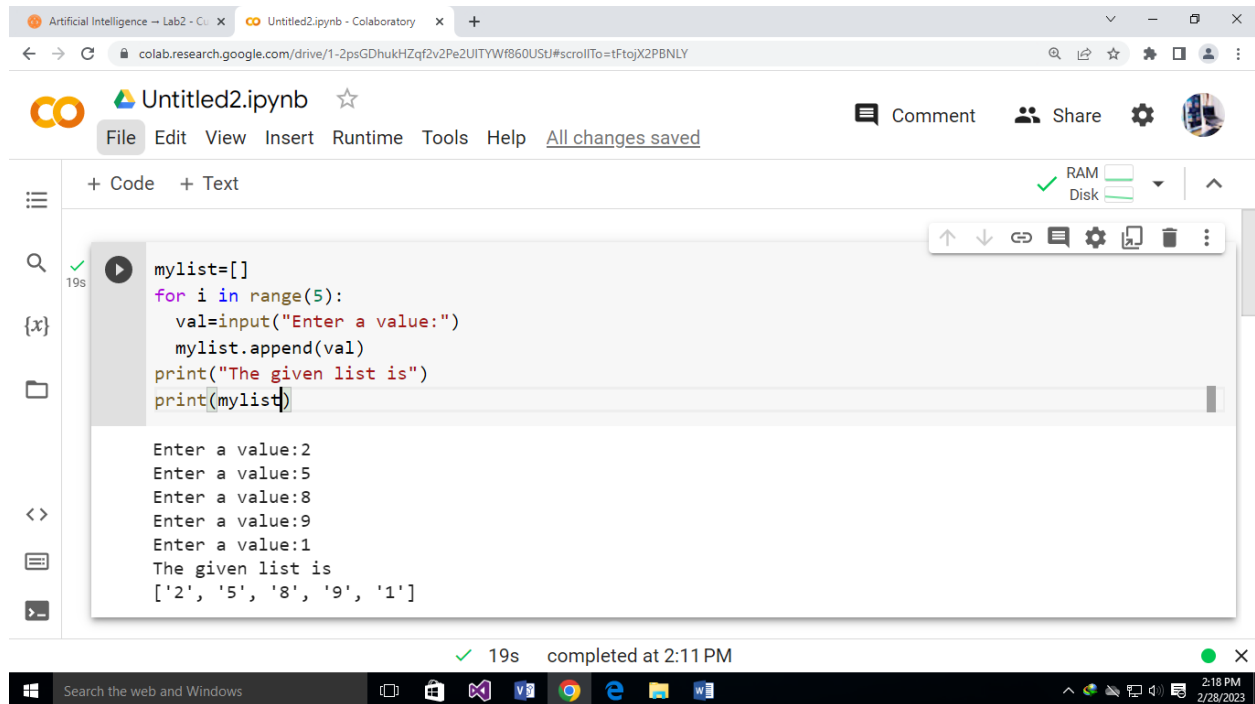
Subject: Artificial Intelligence

Date: 28-02-2023

COMSATS University Islamabad

Vehari Campus

Activity 1



The screenshot shows a Google Colaboratory notebook titled "Untitled2.ipynb". The code cell contains the following Python code:

```
mylist=[]
for i in range(5):
    val=input("Enter a value:")
    mylist.append(val)
print("The given list is")
print(mylist)
```

The output of the code is:

```
Enter a value:2
Enter a value:5
Enter a value:8
Enter a value:9
Enter a value:1
The given list is
['2', '5', '8', '9', '1']
```

The notebook interface includes a menu bar (File, Edit, View, Insert, Runtime, Tools, Help), a toolbar with icons for code and text, and a status bar at the bottom indicating the code completed in 19 seconds at 2:11 PM. The Windows taskbar is visible at the bottom of the screen.

Activity 2

The screenshot shows a Google Colaboratory notebook titled "Untitled2.ipynb". The code cell contains a Python script that initializes an empty list, prompts the user for five values, appends them to the list, and then prints the sum of the list elements. The output cell shows the user input sequence and the final sum of 47.

```
mylist=[]
for i in range(5):
    val=input("Enter a value:")
    n=int(val)
    mylist.append(n)
sum=0
for n in mylist:
    sum=sum+n
print("The sum of given values is",sum)
```

Enter a value:5
Enter a value:10
Enter a value:20
Enter a value:2
Enter a value:10
The sum of given values is 47

Activity 3

The screenshot shows a Google Colaboratory notebook titled "Untitled2.ipynb". The code cell contains a Python script that prompts the user for five values, appends them to a list, sorts the list, and prints the sorted list. The output cell shows the user input sequence and the sorted list [2, 4, 5, 6, 10].

```
mylist=[]
for i in range(5):
    val=input("Enter a value:")
    n=int(val)
    mylist.append(n)
mylist.sort()
print(mylist)
```

Enter a value:10
Enter a value:5
Enter a value:2
Enter a value:4
Enter a value:6
[2, 4, 5, 6, 10]

Activity 4

The screenshot shows the Google Colaboratory web interface. The browser tab is titled 'Untitled2.ipynb - Colaboratory'. The address bar shows the URL: `colab.research.google.com/drive/1-2psGDhukHZqf2v2Pe2UITYWR860USU?scrollTo=28Dxcd2xKu5w`. The notebook interface includes a top bar with the Colab logo, the file name 'Untitled2.ipynb', and buttons for 'File', 'Edit', 'View', 'Insert', 'Runtime', 'Tools', 'Help', 'Comment', 'Share', and 'All changes'. Below the top bar, there are tabs for '+ Code' and '+ Text'. The main code editor contains the following Python code:

```
mylist1=[]
print("Enter objects of first list:")
for i in range(5):
    val=input("Enter a value:")
    n=int(val)
    mylist1.append(n)
mylist2=[]
print("Enter objects of second list:")
for i in range(5):
    val=input("Enter a value:")
    n=int(val)
    mylist2.append(n)
list3=mylist1+mylist2;
print(list3)
```

On the left side of the code editor, there is a vertical toolbar with icons for running the code, searching, and other functions. A green checkmark and '18s' are visible next to the run button. The bottom of the interface shows a Windows taskbar with various application icons and the system clock displaying '2:54 PM 2/28/2023'.

This screenshot shows the same Google Colaboratory interface as the first one, but with the output of the code execution displayed. The top bar and navigation elements are identical. The code editor now shows the output of the program:

```
Enter objects of first list:
Enter a value:2
Enter a value:4
Enter a value:5
Enter a value:2
Enter a value:1
Enter objects of second list:
Enter a value:4
Enter a value:1
Enter a value:2
Enter a value:2
Enter a value:1
[2, 4, 5, 2, 1, 4, 1, 2, 2, 1]
```

The output is displayed in a monospaced font, matching the code editor's style. The left sidebar and bottom taskbar are also visible, with the system clock showing '2:54 PM 2/28/2023'.

Activity 5

The screenshot shows the Google Colaboratory interface for a notebook titled 'Untitled2.ipynb'. The code in the notebook is as follows:

```
mylist=[]
print("Enter objects of list:")
for i in range(5):
    val=input("Enter a value:")
    n=int(val)
    mylist.append(n)
print(mylist)
a=input("Enter a value to find:")
b=int(a)
c= b in mylist
print(c)
if c==True:
    print("Found")
else:
    print("Not Found")
```

The interface includes a left sidebar with navigation icons, a top menu bar with 'File', 'Edit', 'View', 'Insert', 'Runtime', 'Tools', and 'Help', and a right sidebar with 'Comment', 'Share', and settings. The bottom status bar shows the time as 3:08 PM on 2/28/2023.

This screenshot shows the same Google Colaboratory interface, but with the output of the code execution displayed in the notebook cell. The output is:

```
Enter objects of list:
Enter a value:1
Enter a value:2
Enter a value:3
Enter a value:4
Enter a value:5
[1, 2, 3, 4, 5]
Enter a value to find:8
False
Not Found
```

The interface elements are consistent with the first screenshot, showing the same menu bar, sidebar, and status bar.

Activity 6 (Quiz)

The screenshot shows a Google Colaboratory notebook titled "Untitled2.ipynb". The code in the cell is as follows:

```
mylist1=[]
print("Enter objects of first list:")
for i in range(5):
    val=input("Enter a value:")
    n=int(val)
    mylist1.append(n)
mylist2=[]
print("Enter objects of second list:")
for i in range(5):
    val=input("Enter a value:")
    n=int(val)
    mylist2.append(n)
list3=mylist1+mylist2;
print(list3)
list3.sort()
print(list3)
```

The notebook interface includes a left sidebar with icons for file explorer, search, and other tools. The top bar shows the Colaboratory logo, the notebook title, and options to comment, share, and view settings. The bottom status bar indicates the time as 3:13 PM on 2/28/2023.

The screenshot shows the same Google Colaboratory notebook after execution. The output of the code is displayed in the cell:

```
Enter objects of first list:
Enter a value:1
Enter a value:2
Enter a value:2
Enter a value:3
Enter a value:4
Enter objects of second list:
Enter a value:4
Enter a value:5
Enter a value:4
Enter a value:7
Enter a value:1
[1, 2, 2, 3, 4, 4, 5, 4, 7, 1]
[1, 1, 2, 2, 3, 4, 4, 4, 5, 7]
```

The notebook interface is identical to the first screenshot, showing the same top bar, sidebar, and status bar.

Activity 7

Artificial Intelligence - Lab2 - Cu x Untitled2.ipynb - Colaboratory x find the largest and smallest num x +

colab.research.google.com/drive/1-2psGDhukHZqf2v2Pe2UITYWf860UStJ#scrollTo=pumiyQACTuO7

Untitled2.ipynb ☆

File Edit View Insert Runtime Tools Help All changes saved

+ Code + Text

✓ 20s

```
mylist=[]

for i in range(5):
    val=input("Enter a value:")
    n=int(val)
    mylist.append(n)
    sum=0
    sum=sum+n
    print("Sum of values:",sum)
    print(mylist)

max_number=max(mylist)
print(max_number)
min_number=min(mylist)
print(min_number)
print(mylist)
```

Enter a value:1

Search the web and Windows

3:30 PM 2/28/2023

Artificial Intelligence - Lab2 - Cu x Untitled2.ipynb - Colaboratory x find the largest and smallest num x +

colab.research.google.com/drive/1-2psGDhukHZqf2v2Pe2UITYWf860UStJ#scrollTo=pumiyQACTuO7

Untitled2.ipynb ☆

File Edit View Insert Runtime Tools Hel

+ Code + Text

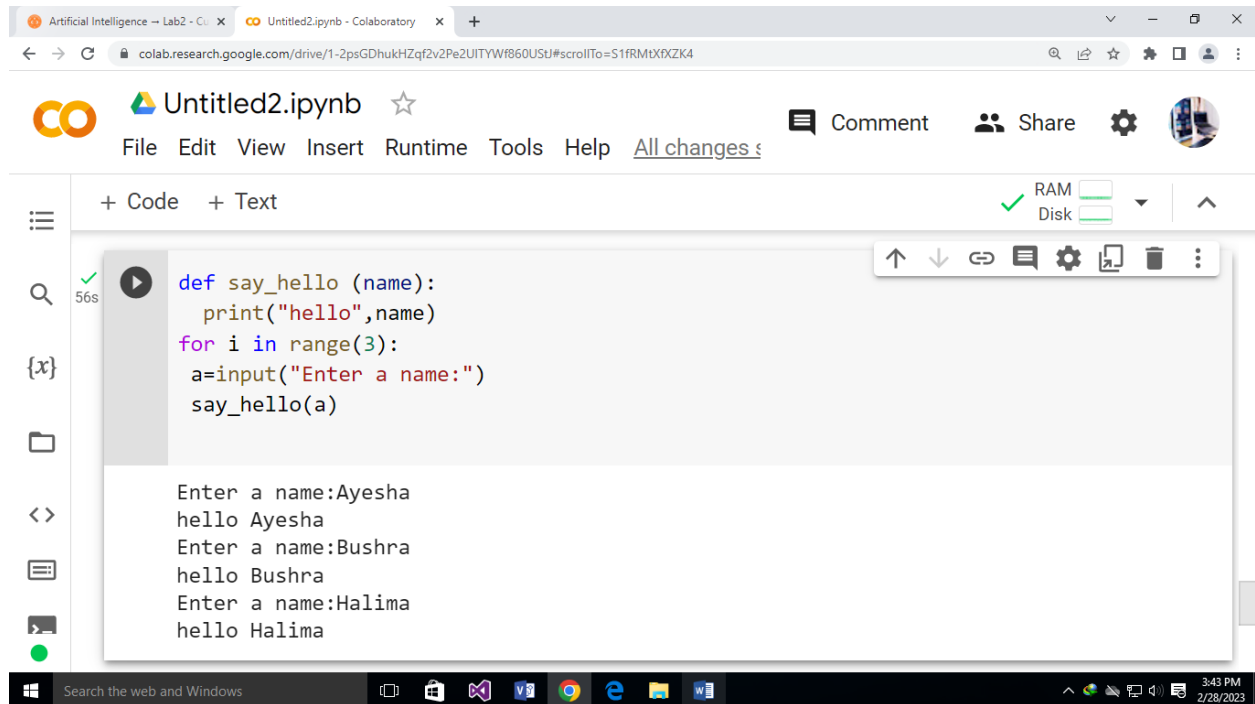
✓ 20s

```
Enter a value:1
Enter a value:2
Enter a value:3
Enter a value:4
Enter a value:5
Sum of values: 5
[1, 2, 3, 4, 5]
5
1
[1, 2, 3, 4, 5]
```

Search the web and Windows

3:30 PM 2/28/2023

Activity 8



The screenshot displays a Google Colaboratory notebook interface. The browser address bar shows the URL: `colab.research.google.com/drive/1-2psGDhukHZqf2v2Pe2UITYWR860UStl#scrollTo=S1fRMtXfXZK4`. The notebook title is "Untitled2.ipynb". The menu bar includes "File", "Edit", "View", "Insert", "Runtime", "Tools", and "Help". The toolbar features a "Comment" button, a "Share" button, and a user profile icon. The left sidebar contains icons for file management and a search bar. The main editor area shows a Python code cell with the following code:

```
def say_hello (name):  
    print("hello",name)  
for i in range(3):  
    a=input("Enter a name:")  
    say_hello(a)
```

Below the code, the output of the program is displayed:

```
Enter a name:Ayesha  
hello Ayesha  
Enter a name:Bushra  
hello Bushra  
Enter a name:Halima  
hello Halima
```

The bottom of the image shows a Windows taskbar with the search bar and several application icons. The system clock indicates the time is 3:43 PM on 2/28/2023.