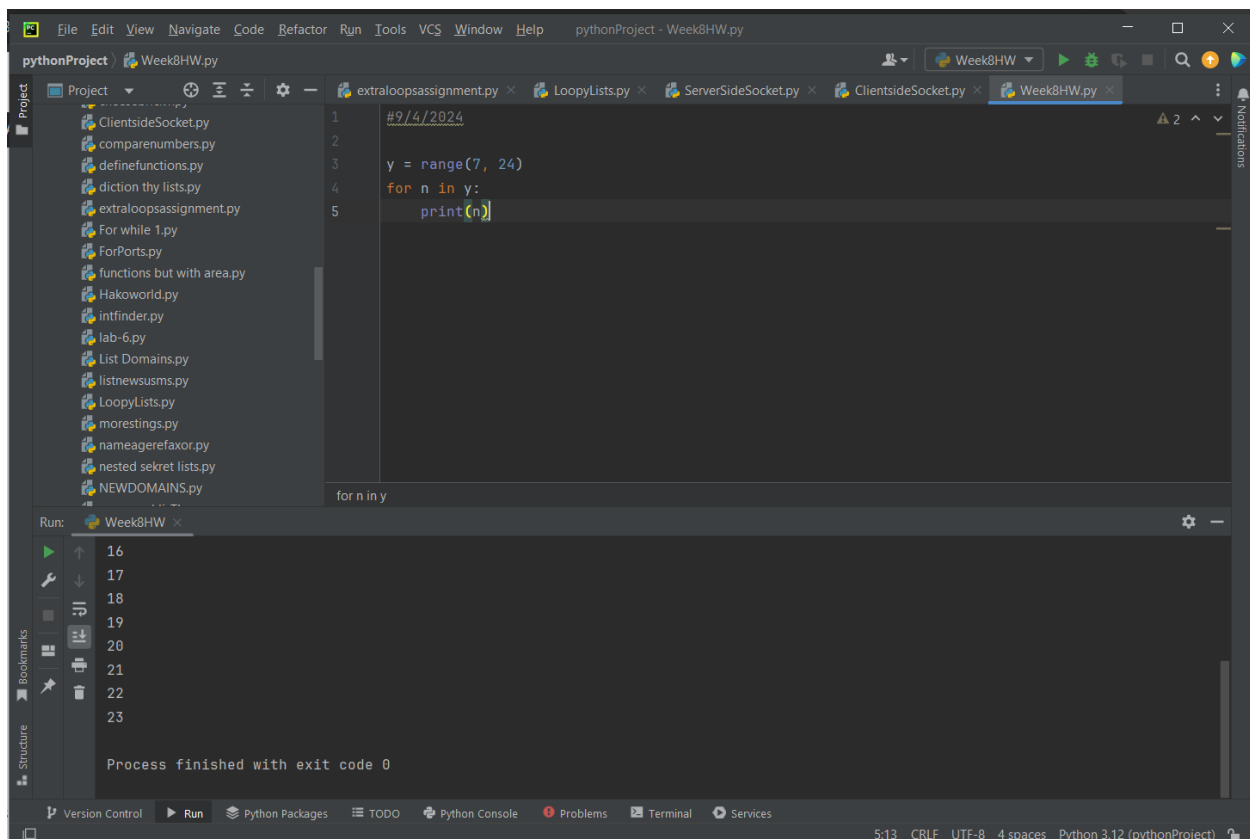


Question-1 [10 points]: What does “while True” mean in python programming?

While True in the context of a loop in python means that the code associated with the loop and the while true command will loop endlessly and can only be stopped with the break command.

Question-2 [5 points] (Research Question): What is range() in python? Explain with examples.

The range() command in python will count from the first number chosen (it starts with zero first) and continues to the last number in the sequence, an example would look like this.

A screenshot of a Python IDE interface. The top menu bar includes File, Edit, View, Navigate, Code, Refactor, Run, Tools, VCS, Window, and Help. The project name is 'pythonProject - Week8HW.py'. The left sidebar shows a file explorer with various Python files. The main editor window displays a Python script with the following code:

```
1 #9/4/2024
2
3 y = range(7, 24)
4 for n in y:
5     print(n)
```

The bottom panel shows the 'Run' output, indicating that the process finished with exit code 0. The status bar at the bottom indicates the file encoding is UTF-8, 4 spaces, and the Python version is 3.12.

Question-3 [5 points]: What is Pyfiglet module in python? [NOTE: You may use internet / online resources to research this question]

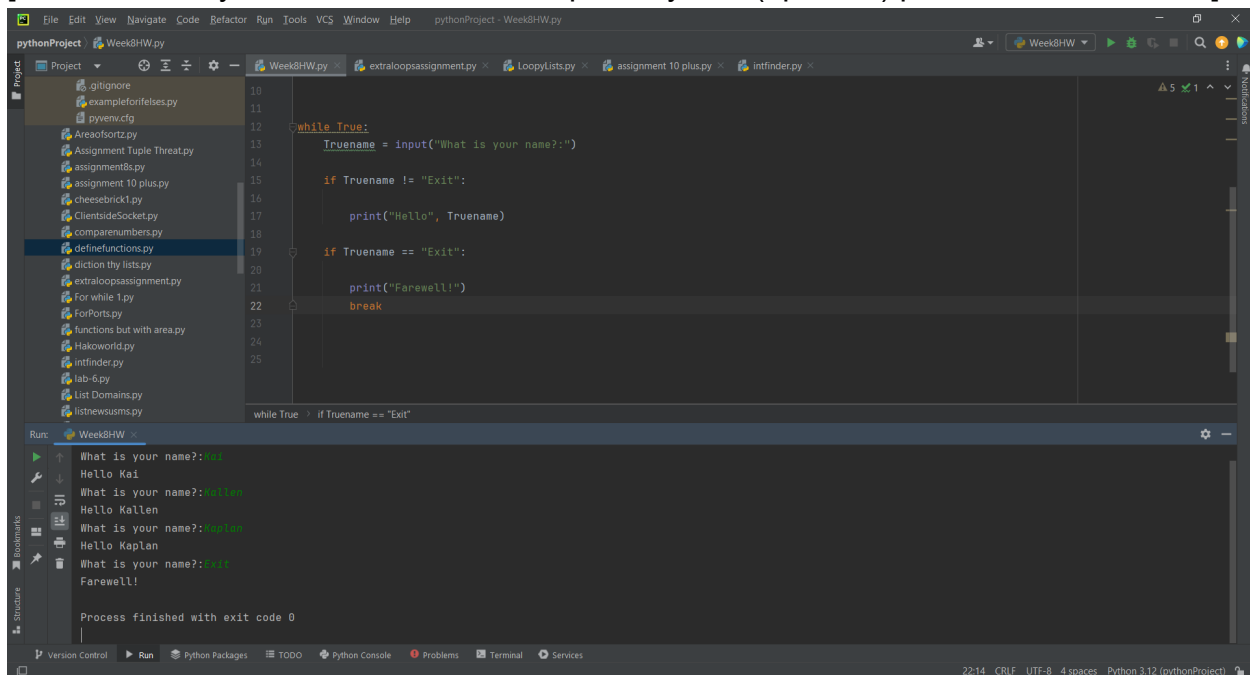
Pyfiglet is a fully ported module of FIGlet, an art program which takes ASCII text and transforms it into visual art that can be seen in the executed result.

Question-4 [20 points]: Write a python program to take any text or string input value (using input ()) for a variable, for example “user_answer”.

- If the entered input value for the variable user_answer is any text other than “Exit”, then it should print some greeting message of your choice.

- Continue the above steps using loop until the user types “exit” as input value for the variable user_answer.

[HINT: You may refer to slide#34 in Loops in Python (updated).pdf, in canvas Module]



The screenshot shows a Python IDE with a project named 'pythonProject'. The file explorer on the left lists various Python files. The main editor displays a Python script named 'Week8HW.py' with the following code:

```
10
11
12 while True:
13     Truename = input("What is your name?:")
14
15     if Truename != "Exit":
16
17         print("Hello", Truename)
18
19     if Truename == "Exit":
20
21         print("Farewell!")
22         break
23
24
25
```

The Run console at the bottom shows the execution output:

```
What is your name?:Kai
Hello Kai
What is your name?:Kallen
Hello Kallen
What is your name?:Kaplan
Hello Kaplan
What is your name?:Exit
Farewell!
Process finished with exit code 0
```

Question-5 [10 points] Using Write the following code in python editor and explain each line (using comments) as well as the output of the function.

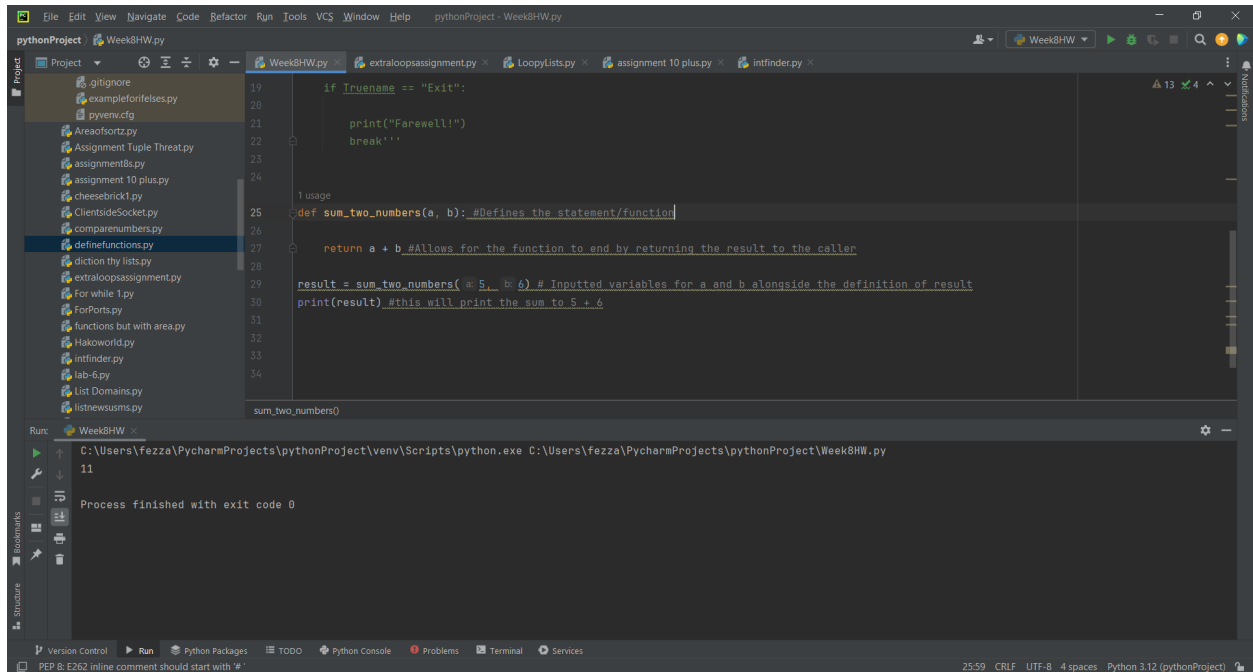
```
def sum_two_numbers(a, b):
```

```
    return a + b
```

```
result = sum_two_numbers(5, 6)
```

```
print(result)
```

(Please submit the screenshot for your script and its output)



Extra credit question [10 points]:

Execute the following program in python editor and submit the screenshot of the output

```
import pyfiglet
```

```
banner = pyfiglet.figlet_format("Type Your Name Here")
```

```
print(banner)
```

NOTE: If you see the message like “No module named 'pyfiglet' “, then you may follow this video to learn about how to install any package or library in PyCharm.

