

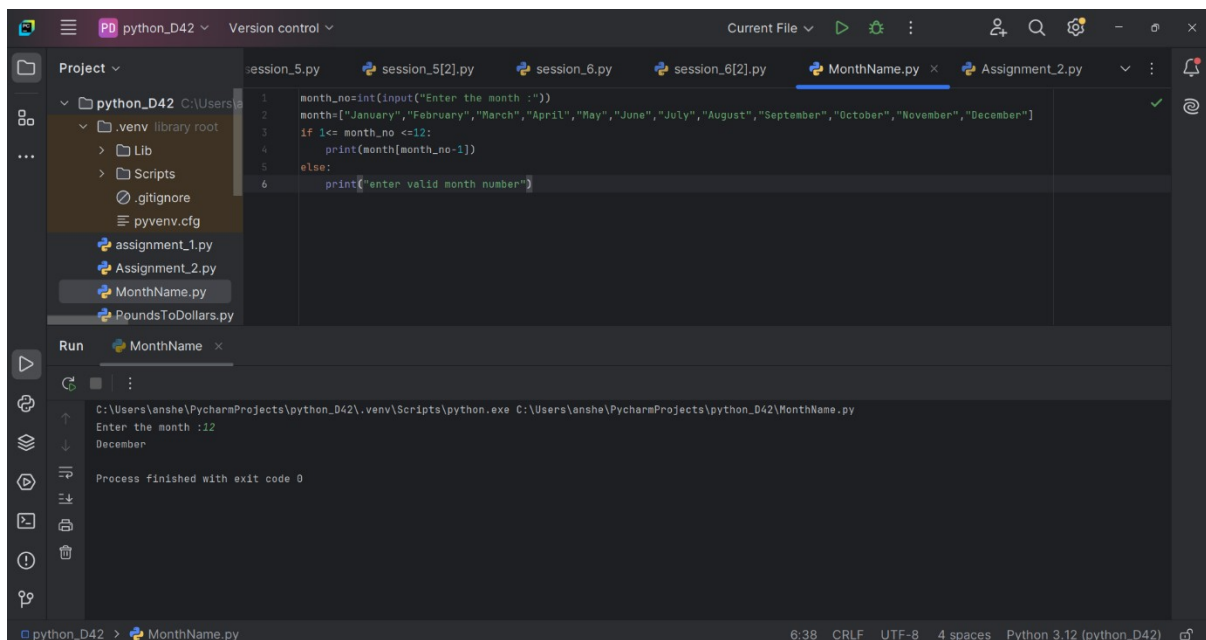
Exercise 1:

Name your file: MonthNames.py Write a program that reads an integer value between 1 and 12 from the user and prints output the corresponding month of the year.

Code:

```
month_no=int(input("Enter the month :"))
month=["January","February","March","April","May","June","July","August","September","October","November","December"]
if 1<= month_no <=12:
    print(month[month_no-1])
else:
    print("enter valid month number")
```

result:



```
1 month_no=int(input("Enter the month :"))
2 month=["January","February","March","April","May","June","July","August","September","October","November","December"]
3 if 1<= month_no <=12:
4     print(month[month_no-1])
5 else:
6     print("enter valid month number")
```

Run MonthName

```
C:\Users\anshe\PycharmProjects\python_D42\.venv\Scripts\python.exe C:\Users\anshe\PycharmProjects\python_D42\MonthName.py
Enter the month :12
December
Process finished with exit code 0
```

python_D42 > MonthName.py 6:38 CRLF UTF-8 4 spaces Python 3.12 (python_D42)

Exercise 2:

A certain cinema currently sells tickets for a full price of 6 pounds, but always sells tickets for half price to people who are less than 16 years old, and for a third of the price for people who are 60 years old or more.

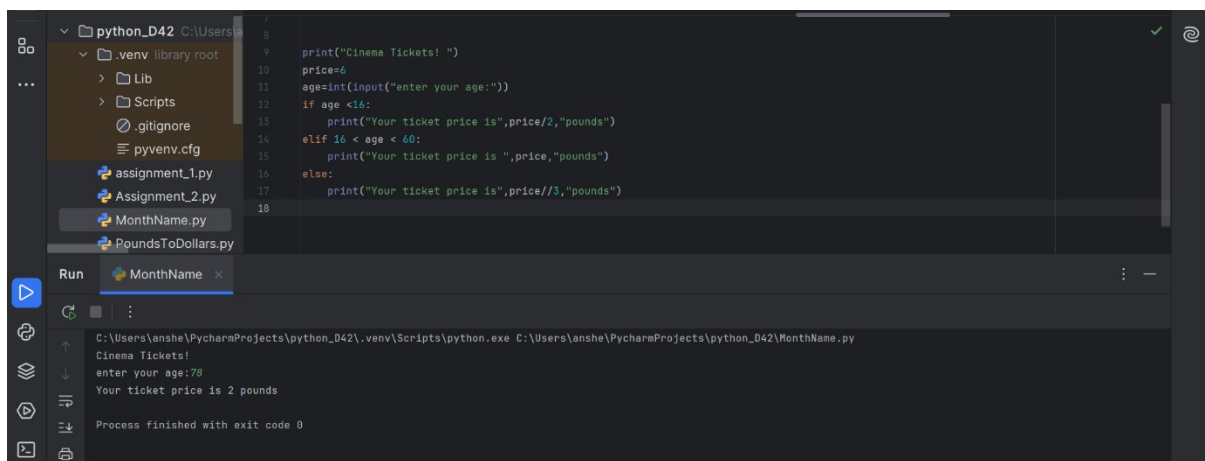
Code:

```

print("Cinema Tickets! ")
price=6
age=int(input("enter your age:"))
if age <16:
    print("Your ticket price is",price/2,"pounds")
elif 16 < age < 60:
    print("Your ticket price is ",price,"pounds")
else:
    print("Your ticket price is",price//3,"pounds")

```

result:



The screenshot shows the PyCharm IDE interface. The left sidebar displays a project structure with files like `assignment_1.py`, `Assignment_2.py`, `MonthName.py`, and `PoundsToDollars.py`. The main editor window shows the Python code from the previous block. Below the editor, the 'Run' tab is active, displaying the execution output: `Cinema Tickets!`, `enter your age:78`, and `Your ticket price is 2 pounds`. The status bar at the bottom indicates 'Process finished with exit code 0'.

Exercise-3:

Write a program to calculate your BMI and give weight status.

Code:

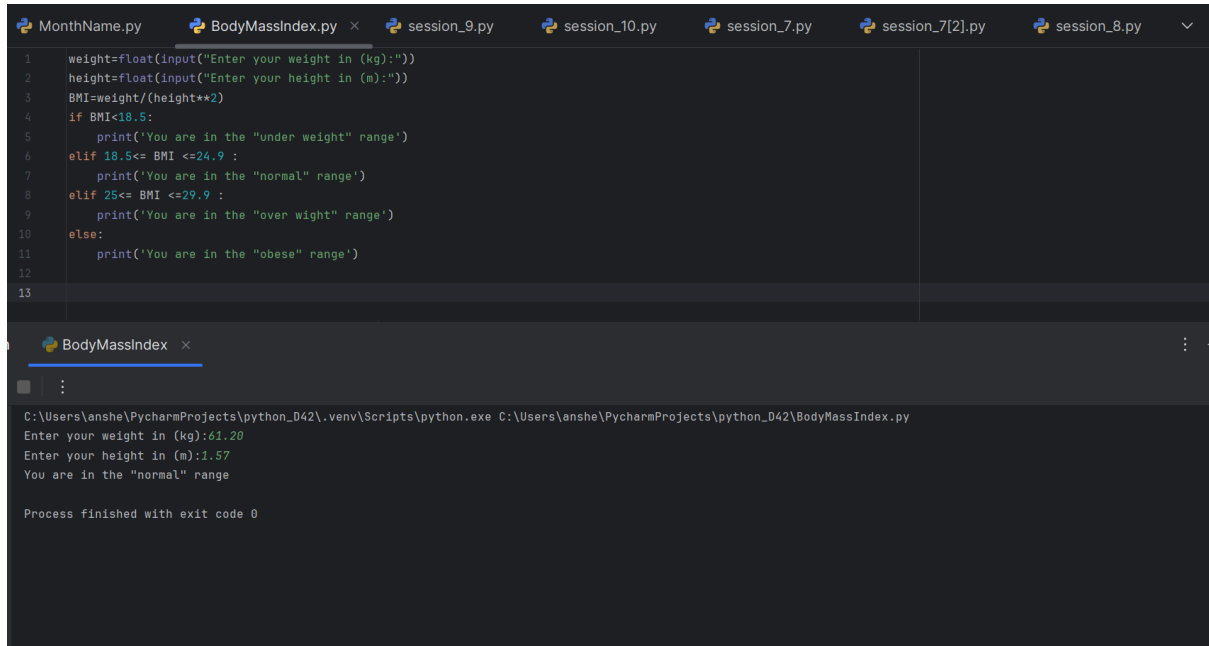
```

weight=float(input("Enter your weight in (kg):"))
height=float(input("Enter your height in (m):"))
BMI=weight/(height**2)
if BMI<18.5:
    print('You are in the "under weight" range')
elif 18.5<= BMI <=24.9 :
    print('You are in the "normal" range')
elif 25<= BMI <=29.9 :

```

```
    print('You are in the "over wight" range')
else:
    print('You are in the "obese" range')
```

result:



The screenshot shows a PyCharm IDE with several tabs open: MonthName.py, BodyMassIndex.py, session_9.py, session_10.py, session_7.py, session_7[2].py, and session_8.py. The active tab is BodyMassIndex.py, which contains the following Python code:

```
1 weight=float(input("Enter your weight in (kg):"))
2 height=float(input("Enter your height in (m):"))
3 BMI=weight/(height**2)
4 if BMI<18.5:
5     print('You are in the "under weight" range')
6 elif 18.5<= BMI <=24.9 :
7     print('You are in the "normal" range')
8 elif 25<= BMI <=29.9 :
9     print('You are in the "over wight" range')
10 else:
11     print('You are in the "obese" range')
12
13
```

Below the code editor, the 'BodyMassIndex' console window is open, showing the execution output:

```
C:\Users\anshe\PycharmProjects\python_D42\.venv\Scripts\python.exe C:\Users\anshe\PycharmProjects\python_D42\BodyMassIndex.py
Enter your weight in (kg):61.20
Enter your height in (m):1.57
You are in the "normal" range

Process finished with exit code 0
```

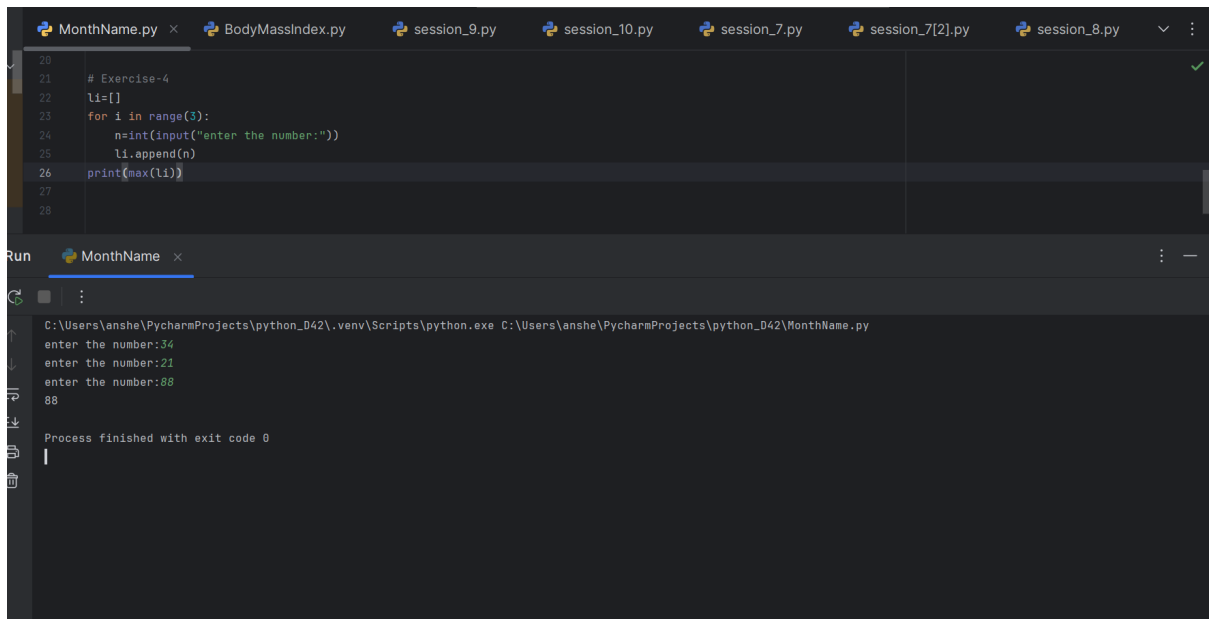
Exercise-4:

Python program to receive 3 numbers from the user and print the greatest among them.

Code:

```
li=[]
for i in range(3):
    n=int(input("enter the number:"))
    li.append(n)
print(max(li))
```

result:



The screenshot shows a PyCharm IDE with a dark theme. The top toolbar contains several tabs: 'MonthName.py', 'BodyMassIndex.py', 'session_9.py', 'session_10.py', 'session_7.py', 'session_7[2].py', and 'session_8.py'. The 'MonthName.py' tab is active, displaying a Python script. The script starts with a comment '# Exercise-4', initializes an empty list 'li = []', and enters a loop 'for i in range(3):'. Inside the loop, it prompts the user to 'enter the number:', converts the input to an integer 'n', and appends it to the list 'li'. After the loop, it prints the maximum value of the list 'li' using 'print(max(li))'. The 'Run' button is visible on the left. Below the editor, the 'Run' console shows the execution output: 'enter the number:34', 'enter the number:21', 'enter the number:88', and the final result '88'. A message at the bottom of the console states 'Process finished with exit code 0'.

```
20
21 # Exercise-4
22 li=[]
23 for i in range(3):
24     n=int(input("enter the number:"))
25     li.append(n)
26 print(max(li))
27
28
```

Run MonthName x

C:\Users\anshe\PycharmProjects\python_D42\.venv\Scripts\python.exe C:\Users\anshe\PycharmProjects\python_D42\MonthName.py

enter the number:34
enter the number:21
enter the number:88
88

Process finished with exit code 0

Exercise-5:

factorial of a given number using loops

code:

```
n=int(input(" enter the number:"))
```

```
num=n
```

```
fact=1
```

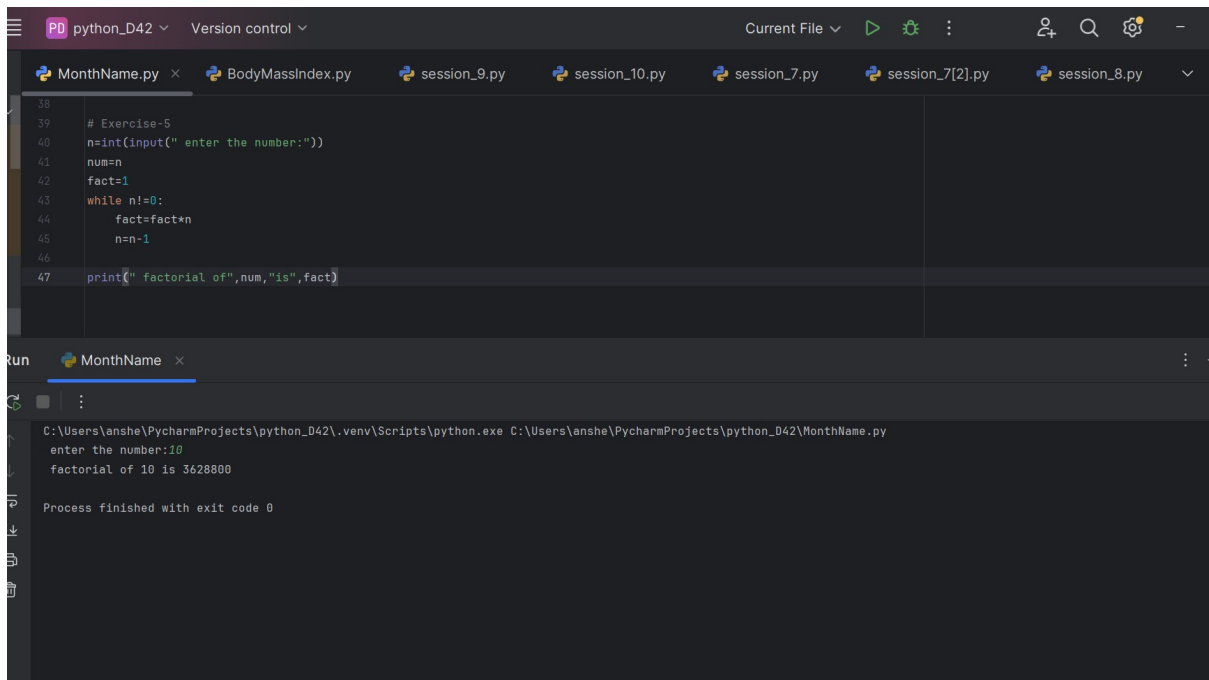
```
while n!=0:
```

```
    fact=fact*n
```

```
    n=n-1
```

```
print(" factorial of",num,"is",fact)
```

result:



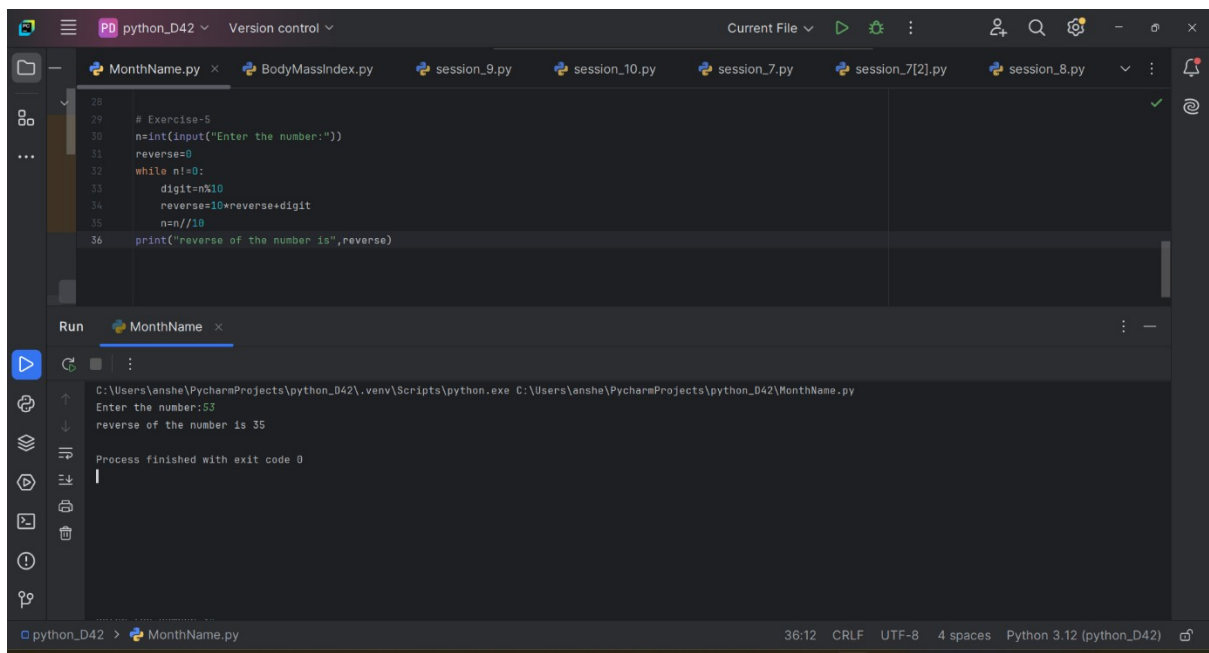
Exercise-6:

Reverse a number using while loop

Code:

```
n=int(input("Enter the number:"))
reverse=0
while n!=0:
    digit=n%10
    reverse=10*reverse+digit
    n=n//10
print("reverse of the number is",reverse)
```

result:



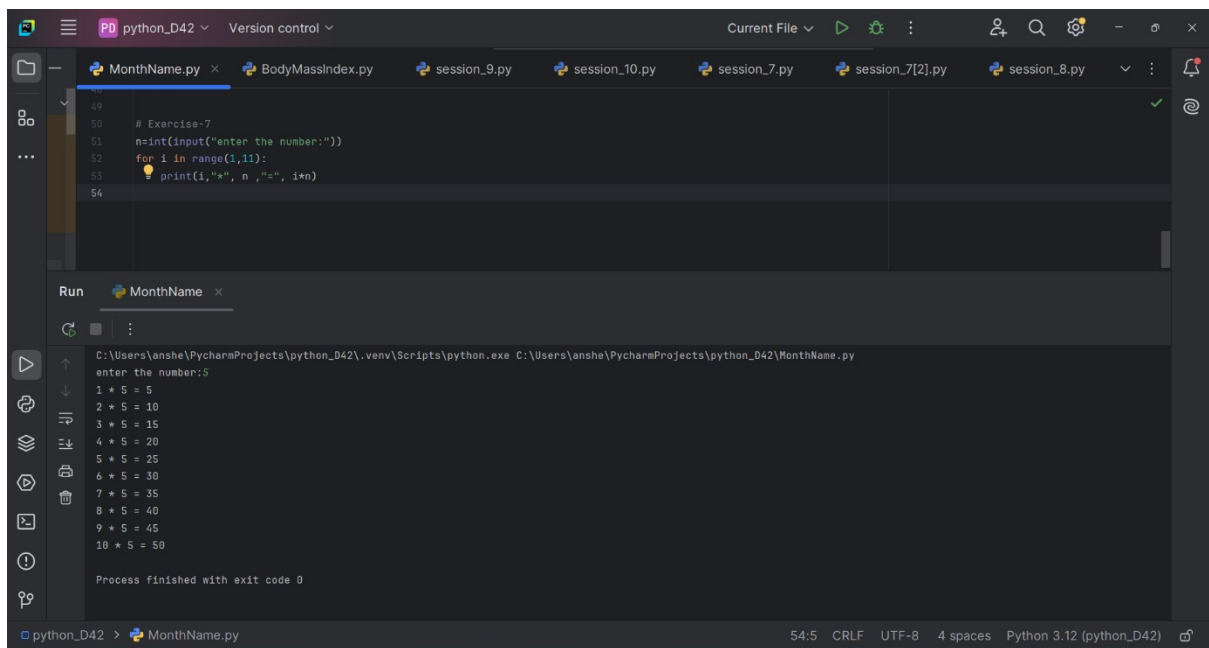
Exercise-7:

Finding the multiples of a number using loop

Code:

```
n=int(input("enter the number:"))  
for i in range(1,11):  
    print(i,"*", n,"=", i*n)
```

result:



The screenshot shows the PyCharm IDE interface. The top toolbar includes icons for file operations, running, and debugging. The file explorer on the left shows a project named 'python_D42' with several files: 'MonthName.py', 'BodyMassIndex.py', 'session_9.py', 'session_10.py', 'session_7.py', 'session_7[2].py', and 'session_8.py'. The 'MonthName.py' file is open in the editor, showing the following code:

```
49  
50 # Exercise-7  
51 n=int(input("enter the number:"))  
52 for i in range(1,11):  
53     print(i,"*", n ,"=", i*n)  
54
```

The 'Run' window at the bottom shows the execution of the script. The command line indicates the script is run using the Python interpreter from the virtual environment. The output shows the user entering '5' and the program printing the multiplication table for 5:

```
C:\Users\anshe\PycharmProjects\python_D42\.venv\Scripts\python.exe C:\Users\anshe\PycharmProjects\python_D42\MonthName.py  
enter the number:5  
1 * 5 = 5  
2 * 5 = 10  
3 * 5 = 15  
4 * 5 = 20  
5 * 5 = 25  
6 * 5 = 30  
7 * 5 = 35  
8 * 5 = 40  
9 * 5 = 45  
10 * 5 = 50  
  
Process finished with exit code 0
```

The status bar at the bottom indicates the current file is 'MonthName.py' in the 'python_D42' project, using Python 3.12 with 4 spaces indentation.

Exercise-8:

program to print the inputted value as it is and break the loop if the value is 'done'.

Code:

while True:

 value = input("enter the value:")

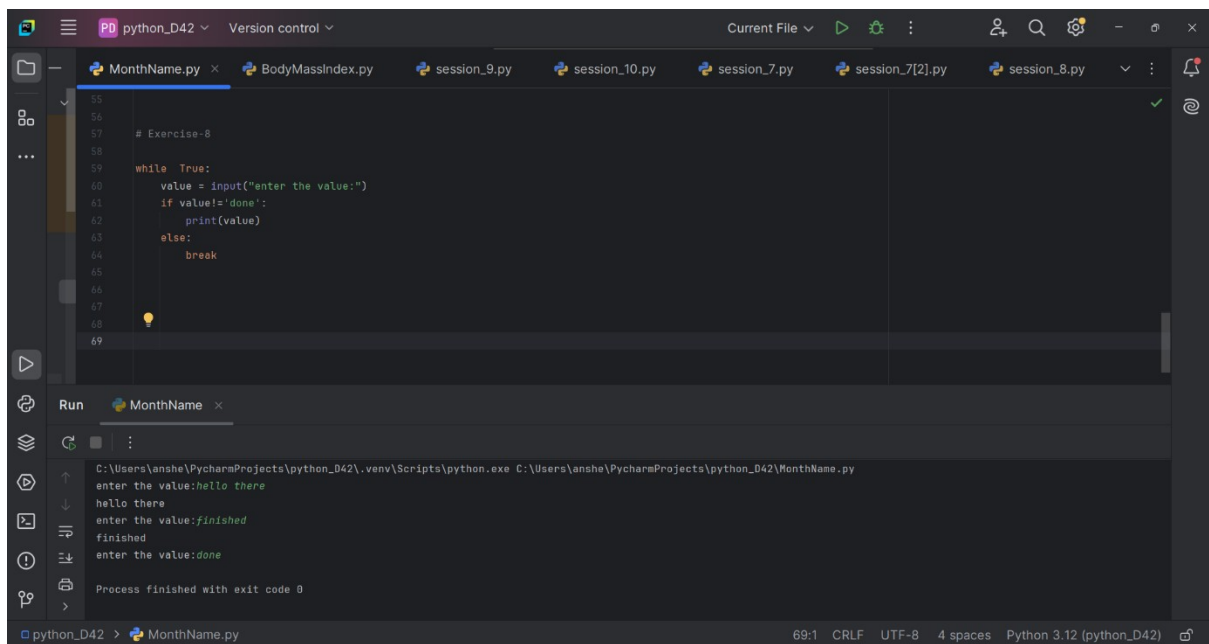
 if value!='done':

 print(value)

 else:

 break

result:



Exercise-9:

program that prints the numbers from 1 to 10. But for multiples of three print "Fizz" instead of the number and for the multiple of five print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".

code:

```
for i in range(1,10):  
    if i%3==0:  
        print("Fizz")  
    elif i%5==0:  
        print("Buzz")  
    elif i%3 and i%5 ==0:  
        print("FizzBuzz")  
    else:  
        print(i)
```

result:

The screenshot shows the PyCharm IDE interface. The top toolbar includes icons for file operations, running, and debugging. The main editor window displays a Python script named `MonthName.py` with the following code:

```
67
68
69 # Exercise-9
70 for i in range(1,10):
71     if i%3==0:
72         print("Fizz")
73     elif i%5==0:
74         print("Buzz")
75     elif i%3 and i%5 ==0:
76         print("FizzBuzz")
77     else:
78         print(i)
```

Below the editor, the 'Run' window shows the execution output:

```
1
2
Fizz
4
Buzz
Fizz
7
8
Fizz
```

The status bar at the bottom indicates the file is `MonthName.py` in the `python_D42` project, using Python 3.12.

Exercise-10:

program to print the following pattern:

5 4 3 2 1

4 3 2 1

3 2 1

2 1

1

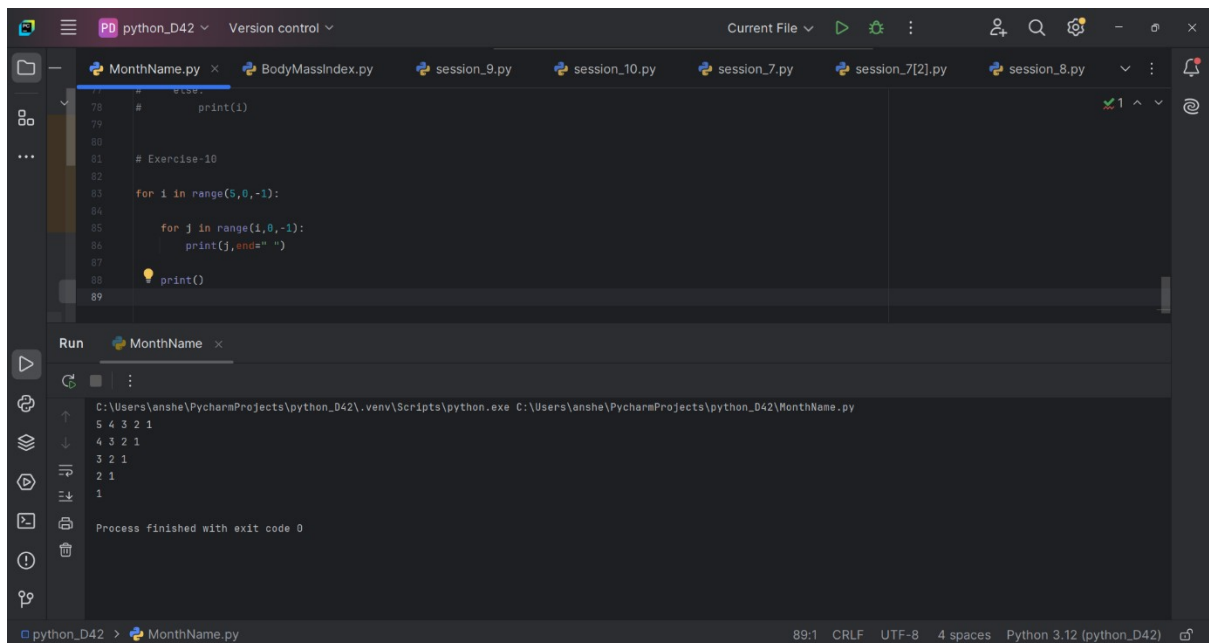
Code:

for i in range(5,0,-1):

```
    for j in range(i,0,-1):
        print(j,end=" ")
```

```
    print()
```

result:



The screenshot shows the PyCharm IDE interface. The top toolbar includes icons for file operations, running, and debugging. The main editor window displays a Python file named `MonthName.py` with the following code:

```
78 # else:
79     print(1)
80
81 # Exercise-10
82
83 for i in range(5,0,-1):
84     for j in range(1,0,-1):
85         print(j,end=" ")
86     print()
87
88 print()
89
```

Below the editor, the `Run` console is visible, showing the execution output:

```
C:\Users\anshe\PycharmProjects\python_D42\.venv\Scripts\python.exe C:\Users\anshe\PycharmProjects\python_D42\MonthName.py
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1
Process finished with exit code 0
```

The status bar at the bottom indicates the file is `MonthName.py` in the `python_D42` project, using Python 3.12.