

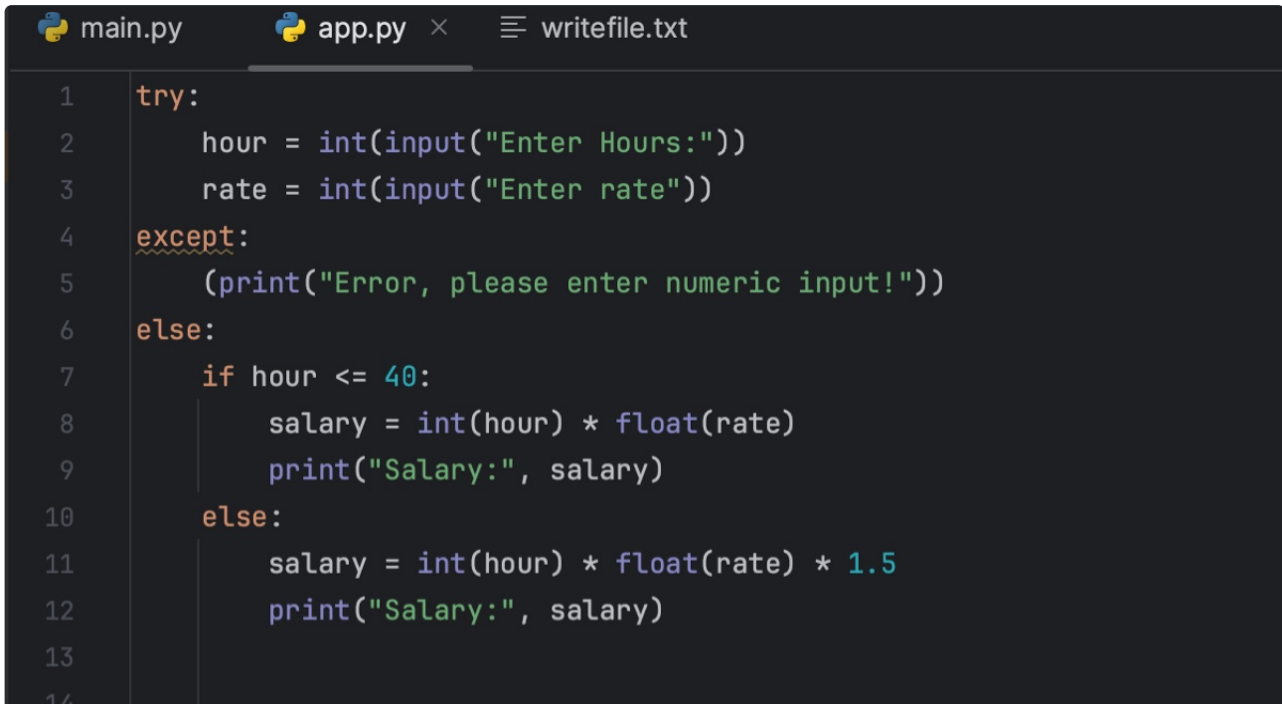
COMPUTATIONAL THINKING AND PROGRAMMING

Assignment 3 from 3rd week

Number 1

Write a program that calculates salary 1.5 times wages per hour for workers who work more than 40 hours

Input

A screenshot of a code editor with three tabs: 'main.py', 'app.py', and 'writefile.txt'. The 'main.py' tab is active, showing a Python script. The script uses a try-except-else block to handle user input. It prompts the user to 'Enter Hours:' and 'Enter rate:'. If the input is not numeric, it prints an error message. If the input is numeric, it checks if the hours are less than or equal to 40. If yes, it calculates the salary as hours multiplied by rate. If no, it calculates the salary as hours multiplied by rate multiplied by 1.5. The code is as follows:

```
1  try:
2      hour = int(input("Enter Hours:"))
3      rate = int(input("Enter rate"))
4  except:
5      (print("Error, please enter numeric input!"))
6  else:
7      if hour <= 40:
8          salary = int(hour) * float(rate)
9          print("Salary:", salary)
10     else:
11         salary = int(hour) * float(rate) * 1.5
12         print("Salary:", salary)
13
14
```

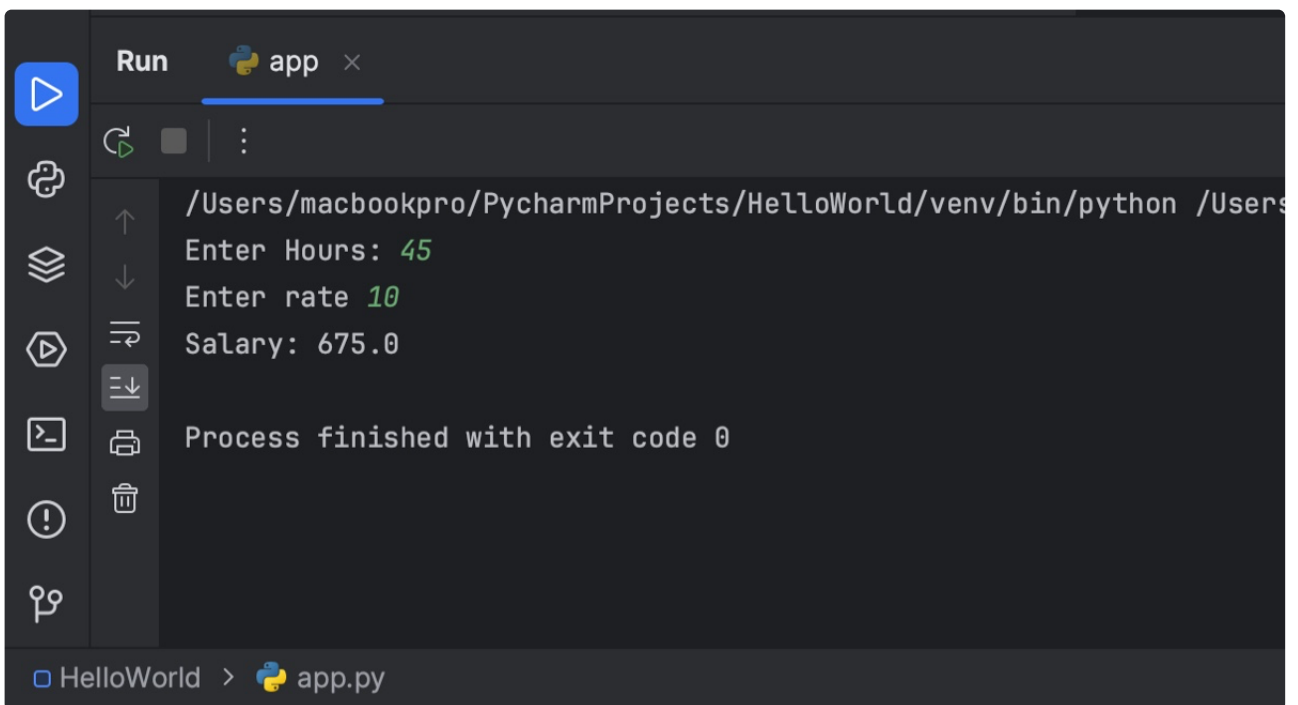
```
try:
hour = int(input("Enter Hours:"))
rate = int(input("Enter rate"))

except:
(print("Error, please enter numeric input!"))

else:
if hour <= 40:
salary = int(hour) * float(rate)
print("Salary:", salary)
else:
salary = int(hour) * float(rate) * 1.5

print("Salary:", salary)
```

Output

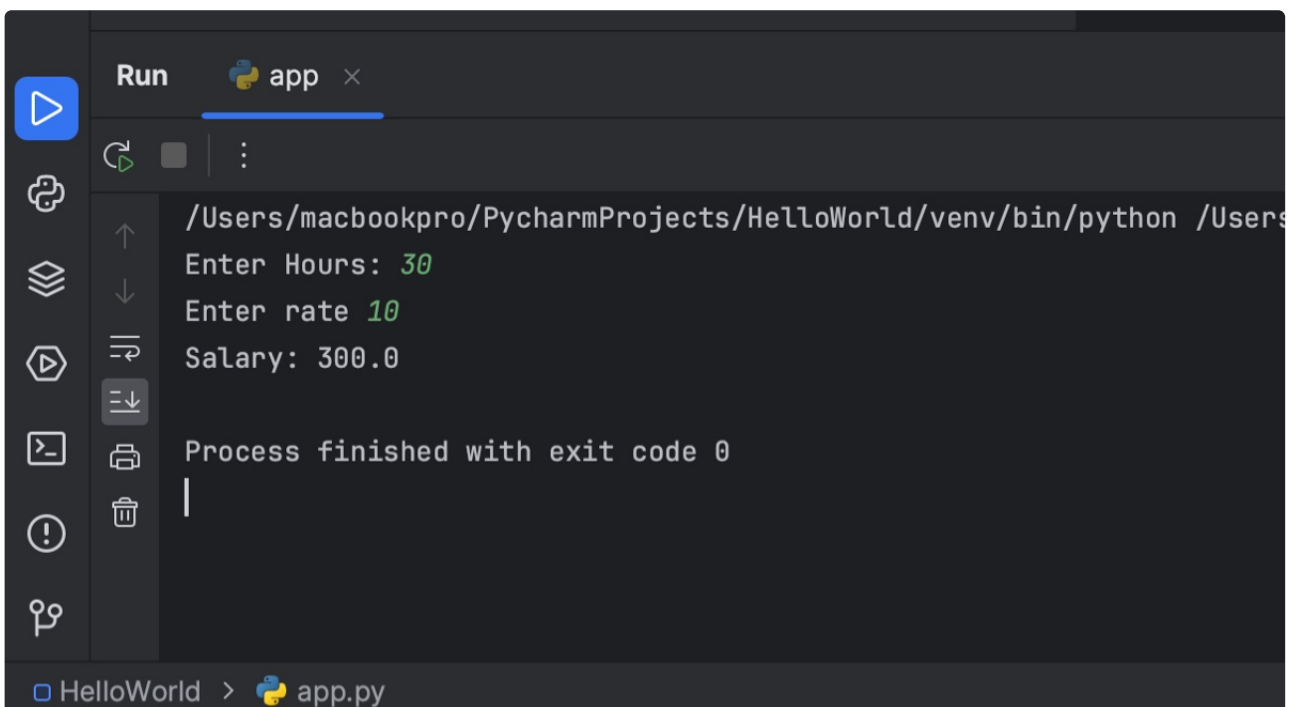


The image shows the PyCharm Run console for a file named 'app.py'. The console output is as follows:

```
/Users/macbookpro/PycharmProjects/HelloWorld/venv/bin/python /Users
Enter Hours: 45
Enter rate 10
Salary: 675.0

Process finished with exit code 0
```

The bottom status bar indicates the current file is 'HelloWorld > app.py'.

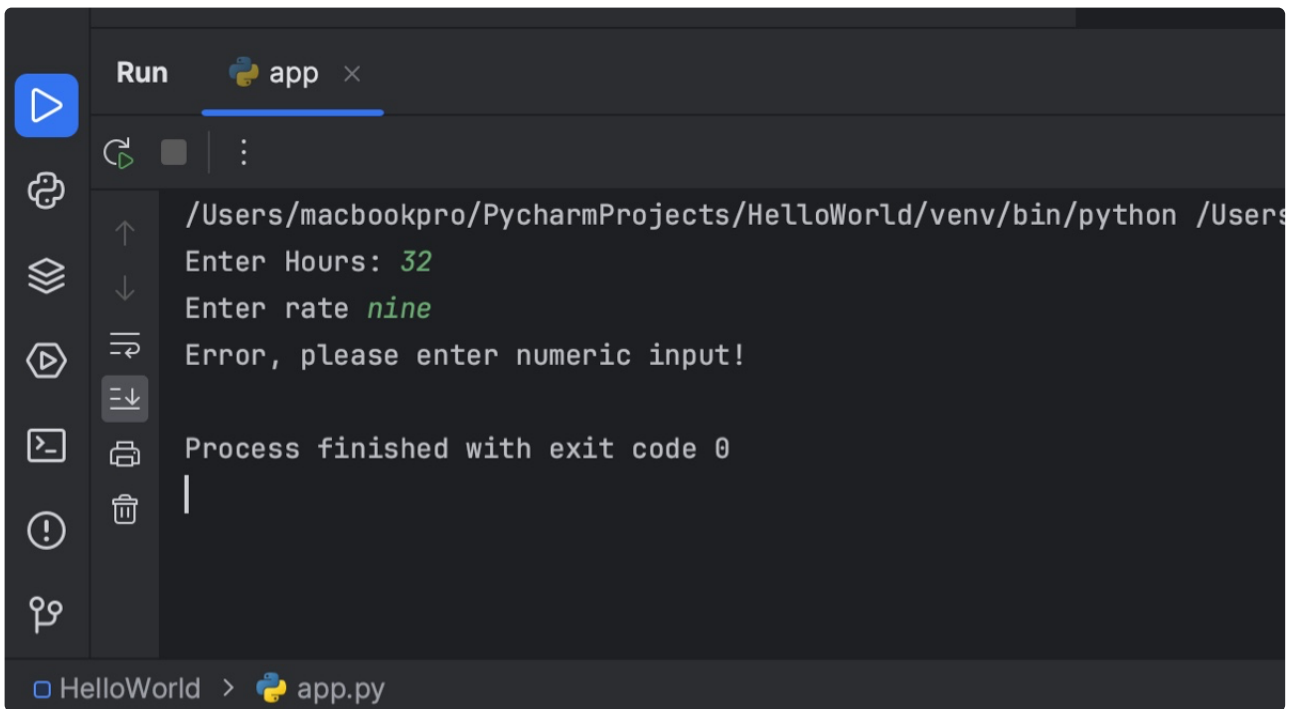


The image shows the PyCharm Run console for a file named 'app.py'. The console output is as follows:

```
/Users/macbookpro/PycharmProjects/HelloWorld/venv/bin/python /Users
Enter Hours: 30
Enter rate 10
Salary: 300.0

Process finished with exit code 0
|
```

The bottom status bar indicates the current file is 'HelloWorld > app.py'.

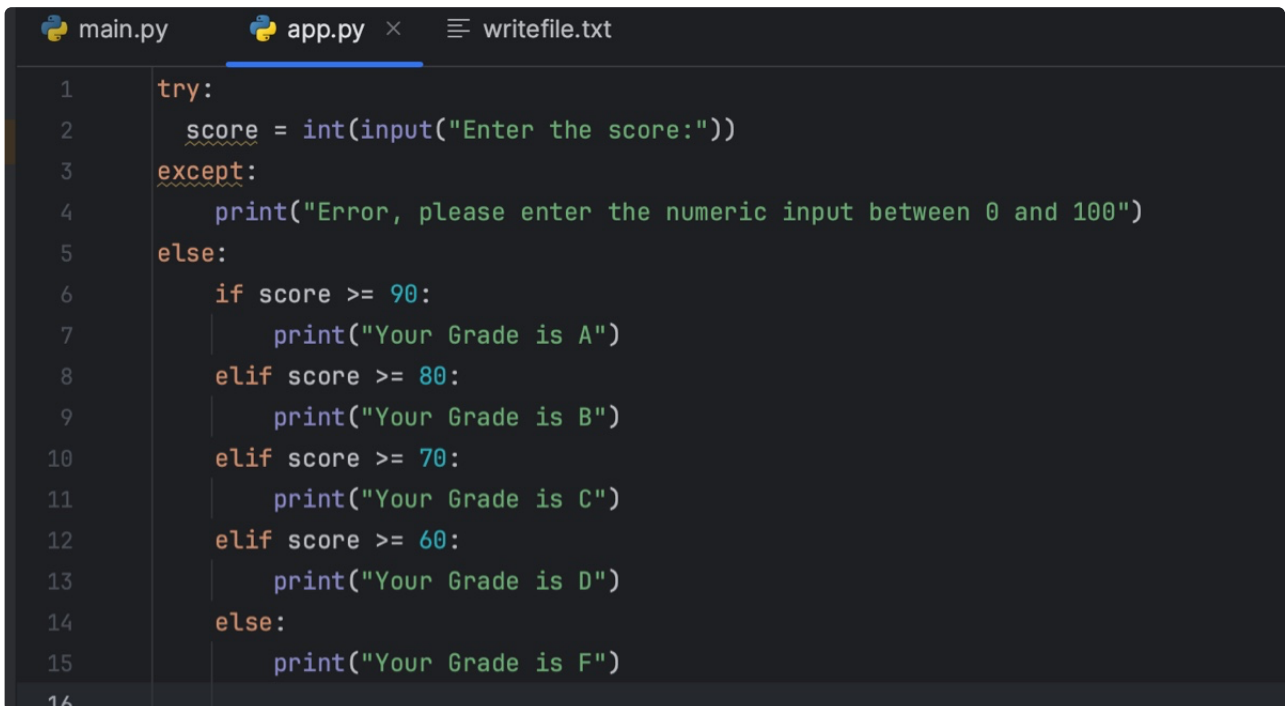


```
Run app x
/Users/macbookpro/PycharmProjects/HelloWorld/venv/bin/python /Users
Enter Hours: 32
Enter rate nine
Error, please enter numeric input!
Process finished with exit code 0
|
HelloWorld > app.py
```

Number 2

Write a program that inputs a score between 0 and 100 and calculates the grade. If the entered value is out of range, an error message is displayed, and if it is within the range, the grade is calculated

Input



```
main.py app.py x writefile.txt
1 try:
2     score = int(input("Enter the score:"))
3 except:
4     print("Error, please enter the numeric input between 0 and 100")
5 else:
6     if score >= 90:
7         print("Your Grade is A")
8     elif score >= 80:
9         print("Your Grade is B")
10    elif score >= 70:
11        print("Your Grade is C")
12    elif score >= 60:
13        print("Your Grade is D")
14    else:
15        print("Your Grade is F")
16
```

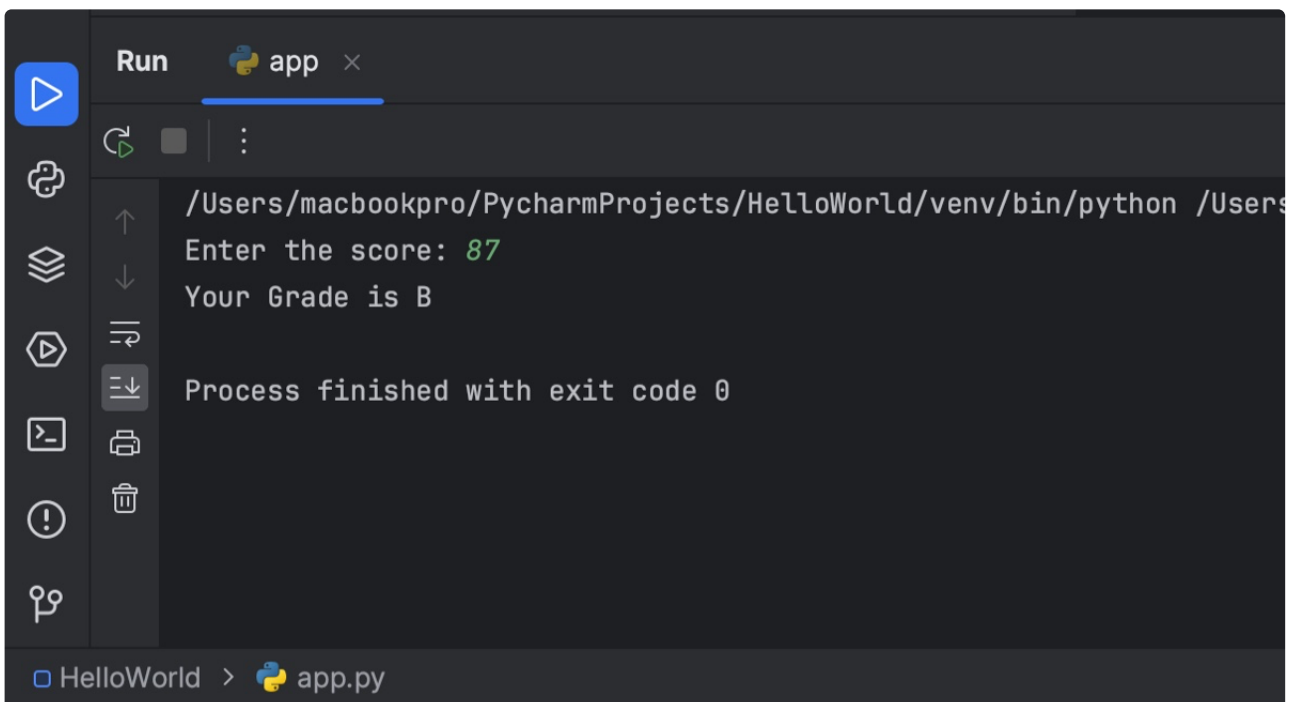
try:

```
score = int(input("Enter the score:"))

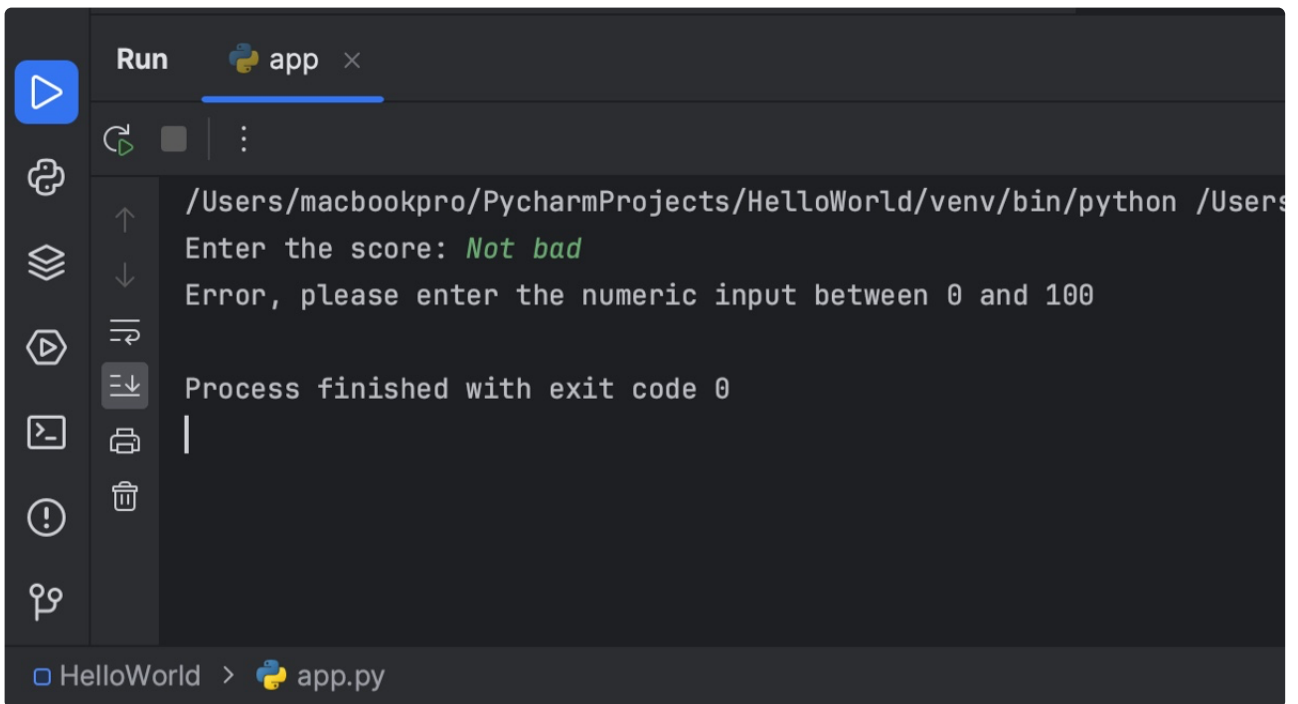
except:
    print("Error, please enter the numeric input between 0 and 100")

else:
    if score >= 90:
        print("Your Grade is A")
    elif score >= 80:
        print("Your Grade is B")
    elif score >= 70:
        print("Your Grade is C")
    elif score >= 60:
        print("Your Grade is D")
    else:
        print("Your Grade is F")
```

Output:



```
Run app x
/Users/macbookpro/PycharmProjects/HelloWorld/venv/bin/python /Users
Enter the score: 87
Your Grade is B
Process finished with exit code 0
HelloWorld > app.py
```



The image shows the Run console in PyCharm. The title bar says 'Run' and 'app'. The console output shows the program path, a prompt 'Enter the score:', the user input 'Not bad' in green, an error message 'Error, please enter the numeric input between 0 and 100', and a final message 'Process finished with exit code 0'. The bottom status bar shows 'HelloWorld > app.py'.

```
Run app x
/Users/macbookpro/PycharmProjects/HelloWorld/venv/bin/python /Users
Enter the score: Not bad
Error, please enter the numeric input between 0 and 100
Process finished with exit code 0
|
HelloWorld > app.py
```

Number 3

Write a program that repeatedly inputs a number until the user enters "done". If "done" is entered, the sum, count, and average value of the numbers entered so far are printed. If a value other than a number is entered, an exception must be handled with try and except to output an error message, and then the next number must be input.

Input



The image shows the code editor in PyCharm with three tabs: 'main.py', 'app.py', and 'writefile.txt'. The 'app.py' tab is active and contains the following Python code:

```
main.py app.py x writefile.txt
1 total = 0
2 count = 0
3 while True:
4     user_input = input("Enter a number")
5     if user_input.lower() == "done":
6         break
7
8     try:
9         number = float(user_input)
10        total += number
11        count += 1
12    except ValueError:
13        print("Invalid input!")
14
15    if count > 0:
16        avarage = total / count
17        print(f"Sum of input: {total}")
18        print(f"Number of input: {count}")
19        print(f"Avarage of input numbers: {avarage}")
20
21
```

total = 0

```
count = 0

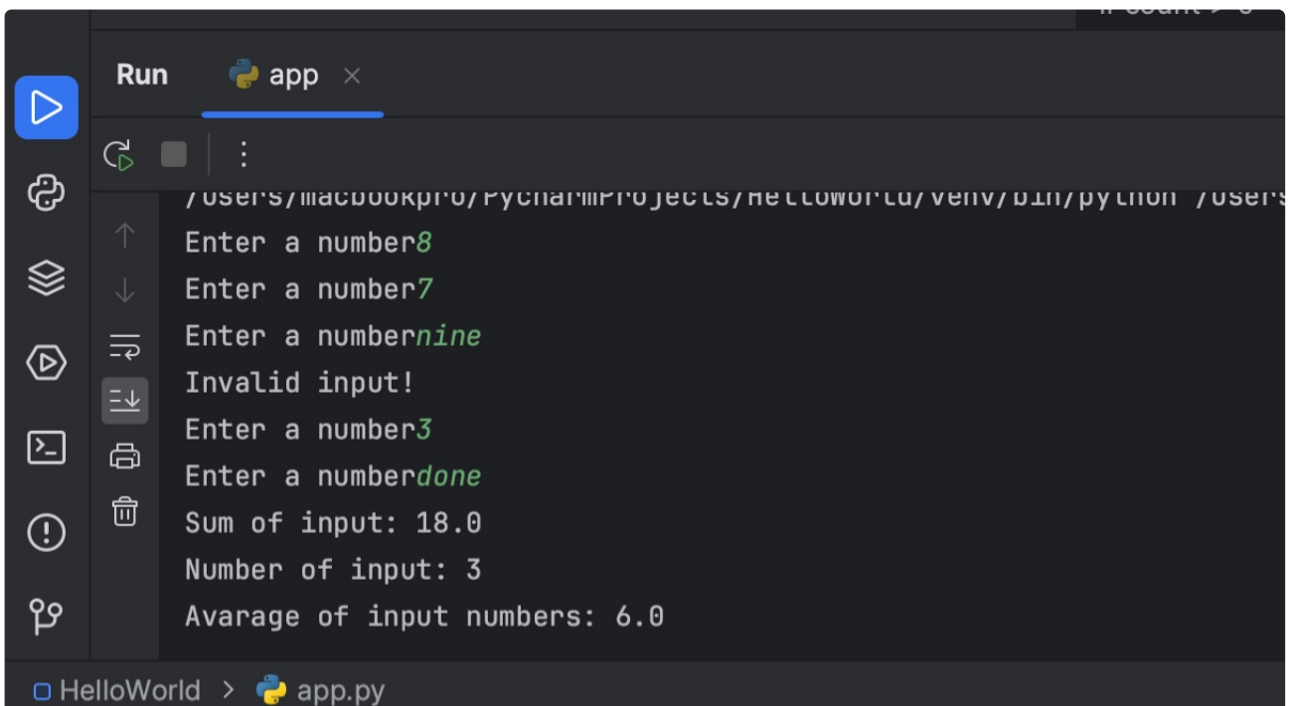
while True:
    user_input = input("Enter a number")
    if user_input.lower() == "done":
        break

    try:
        number = float(user_input)
        total += number
        count += 1

    except ValueError:
        print("Invalid input!")

if count > 0:
    avarage = total / count
    print(f"Sum of input: {total}")
    print(f"Number of input: {count}")
    print(f"Avarage of input numbers: {avarage}")
```

Output



```
Run app x
/Users/macbookpro/PycharmProjects/networked/venv/bin/python /Users/
↑ Enter a number8
↓ Enter a number7
↵ Enter a numbernine
⇩ Invalid input!
Enter a number3
Enter a numberdone
Sum of input: 18.0
Number of input: 3
Avarage of input numbers: 6.0
HelloWorld > app.py
```

My name: Sultonaliyev Koyiljon

Student Id: 202312404