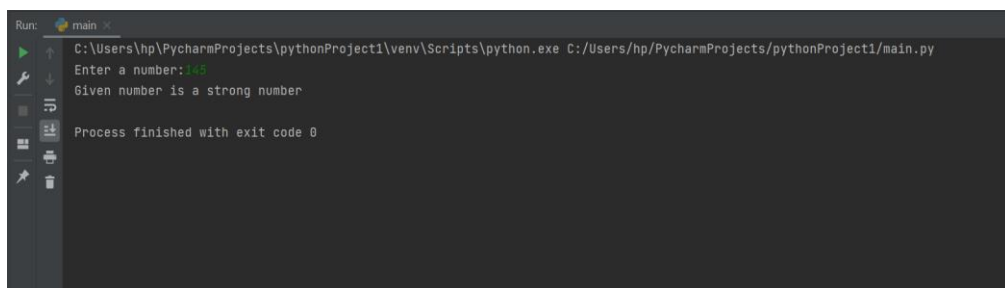


## Problem Statement:

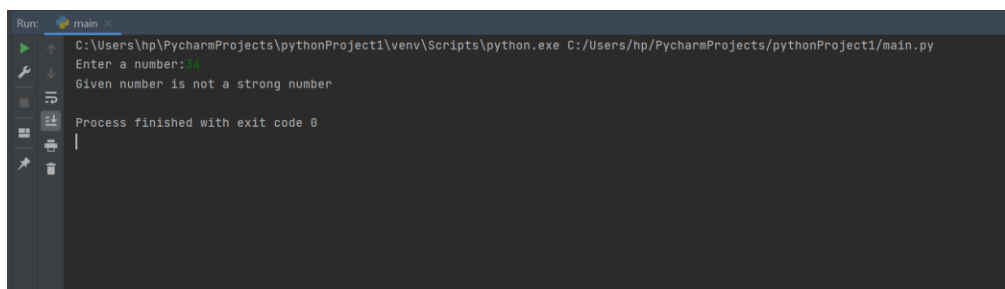
### 1) Write a Python Program to check if a Number is a Strong Number.

```
sum = 0
num = int(input("Enter a number:"))
temp = num
# Using while loop
while (num):
    # initialize with 1
    i = 1
    # fact variable with 1
    fact = 1
    rem = num % 10
    while (i <= rem):
        fact = fact * i # Find factorial of each number
        i = i + 1
    sum = sum + fact
    num = num // 10
if (sum == temp):
    print("Given number is a strong number")
else:
    print("Given number is not a strong number")
```



The screenshot shows a terminal window with the following text:

```
Run: main
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py
Enter a number:145
Given number is a strong number
Process finished with exit code 0
```



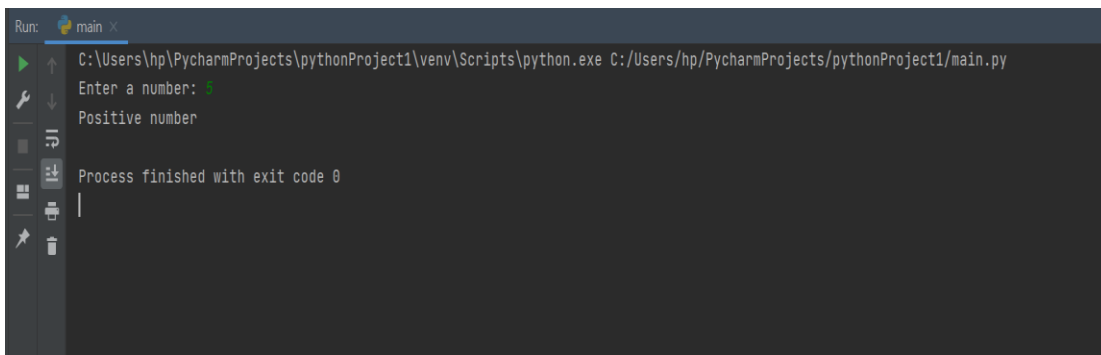
The screenshot shows a terminal window with the following text:

```
Run: main
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py
Enter a number:123
Given number is not a strong number
Process finished with exit code 0
```

## Practice Assignments:

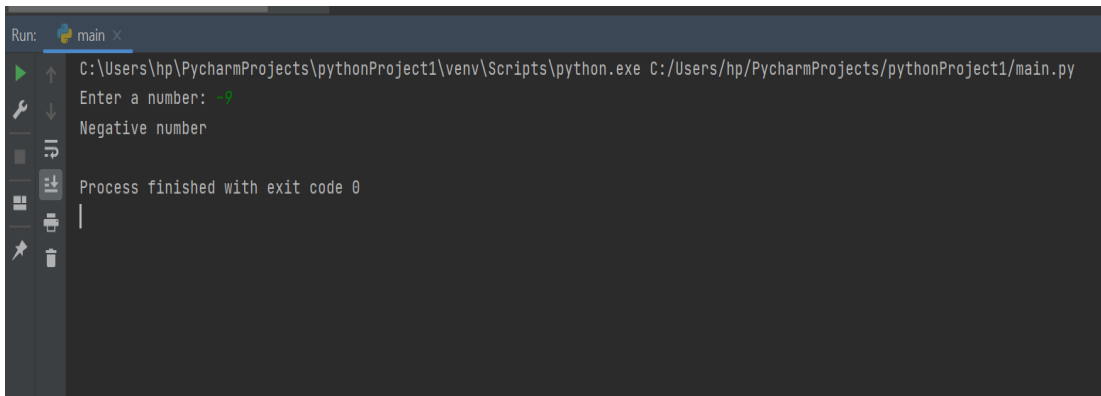
### 1) Python Program to Check Whether a Number is Positive or Negative

```
num = float(input("Enter a number: "))  
  
if num > 0:  
    print("Positive number")  
  
elif num == 0:  
    print("Zero")  
  
else:  
    print("Negative number")
```



This screenshot shows the PyCharm Run console for a Python program. The command prompt shows the execution of the program. The user input is "5", and the output is "Positive number". The process finished with exit code 0.

```
Run: main x  
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py  
Enter a number: 5  
Positive number  
Process finished with exit code 0
```



This screenshot shows the PyCharm Run console for the same Python program. The user input is "-5", and the output is "Negative number". The process finished with exit code 0.

```
Run: main x  
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py  
Enter a number: -5  
Negative number  
Process finished with exit code 0
```



This screenshot shows the PyCharm Run console for the same Python program. The user input is "0", and the output is "Zero". The process finished with exit code 0.

```
Run: main x  
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py  
Enter a number: 0  
Zero  
Process finished with exit code 0
```

## 2) Python Program to Check if a Number is a Palindrome

```
num=int(input("Enter a number:"))

temp=num

rev=0

while(num>0):

    dig=num%10

    rev=rev*10+dig

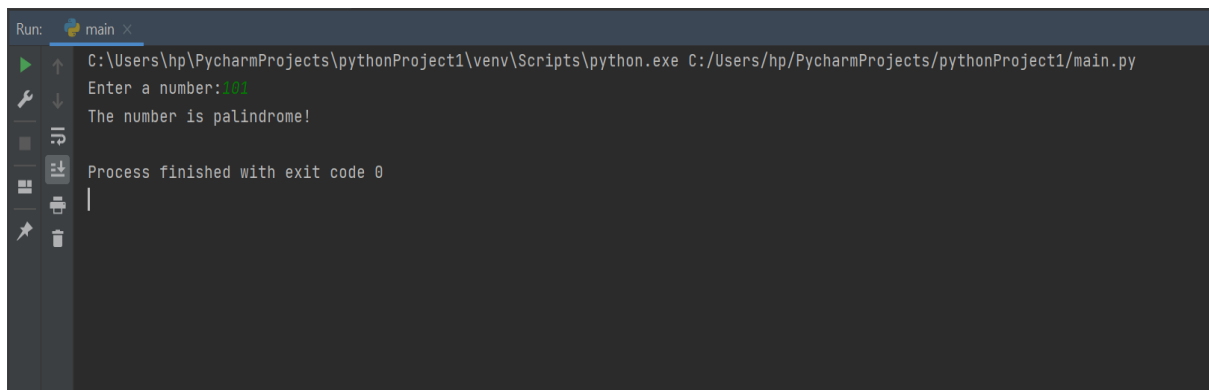
    num=num//10

if(temp==rev):

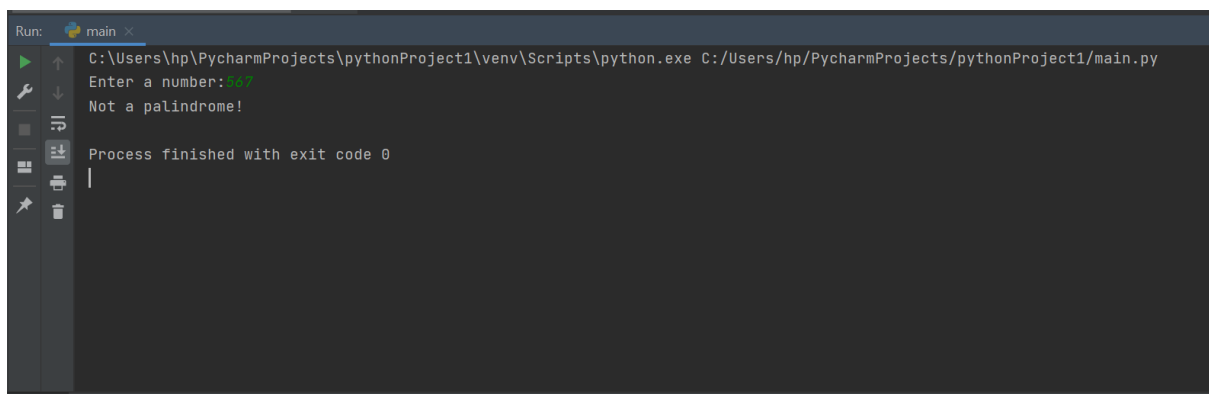
    print("The number is palindrome!")

else:

    print("Not a palindrome!")
```



The screenshot shows the PyCharm Run console for a Python program. The command executed is `C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py`. The program prompts "Enter a number:" and the user inputs "101". The output is "The number is palindrome!". The process finished with exit code 0.



The screenshot shows the PyCharm Run console for the same Python program. The command executed is `C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py`. The program prompts "Enter a number:" and the user inputs "887". The output is "Not a palindrome!". The process finished with exit code 0.

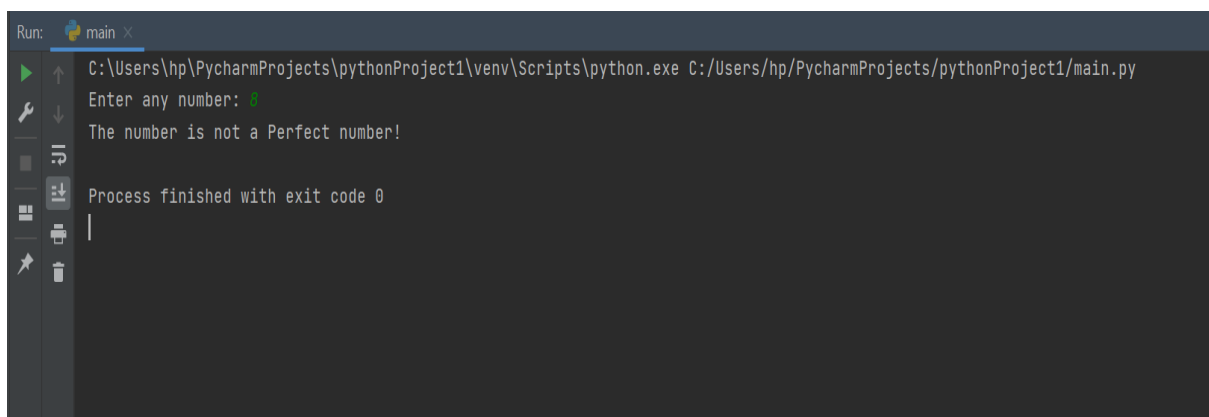
### 3) Python Program to Check if a Number is a Perfect Number

```
n=int(input("Enter any number: "))  
sum=0  
for i in range(1, n):  
    if(n % i == 0):  
        sum = sum + i  
if (sum == n):  
    print("The number is a Perfect number!")  
else:  
    print("The number is not a Perfect number!")
```



The screenshot shows a dark-themed IDE window with a 'Run' tab. The command line shows the execution of a Python script. The input '6' is entered, and the output 'The number is a Perfect number!' is displayed. The process finished with exit code 0.

```
Run: main x  
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py  
Enter any number: 6  
The number is a Perfect number!  
Process finished with exit code 0
```

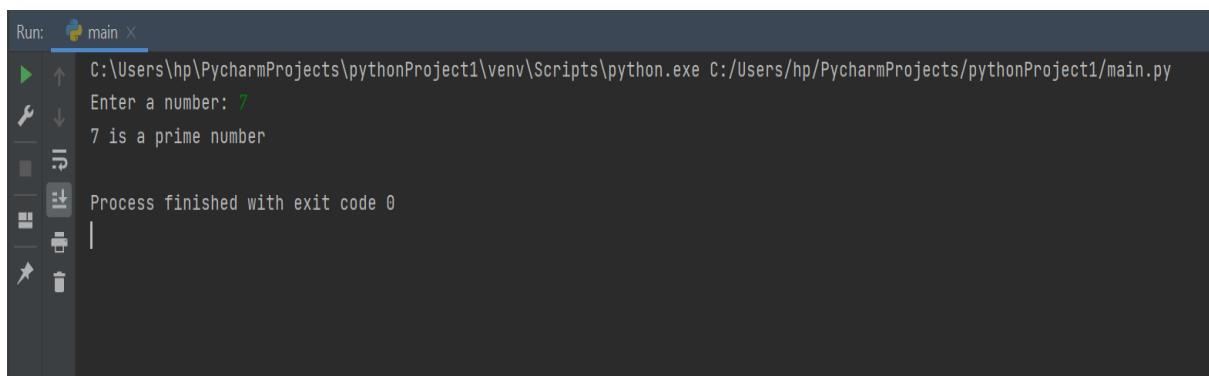


The screenshot shows a dark-themed IDE window with a 'Run' tab. The command line shows the execution of a Python script. The input '7' is entered, and the output 'The number is not a Perfect number!' is displayed. The process finished with exit code 0.

```
Run: main x  
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py  
Enter any number: 7  
The number is not a Perfect number!  
Process finished with exit code 0  
|
```

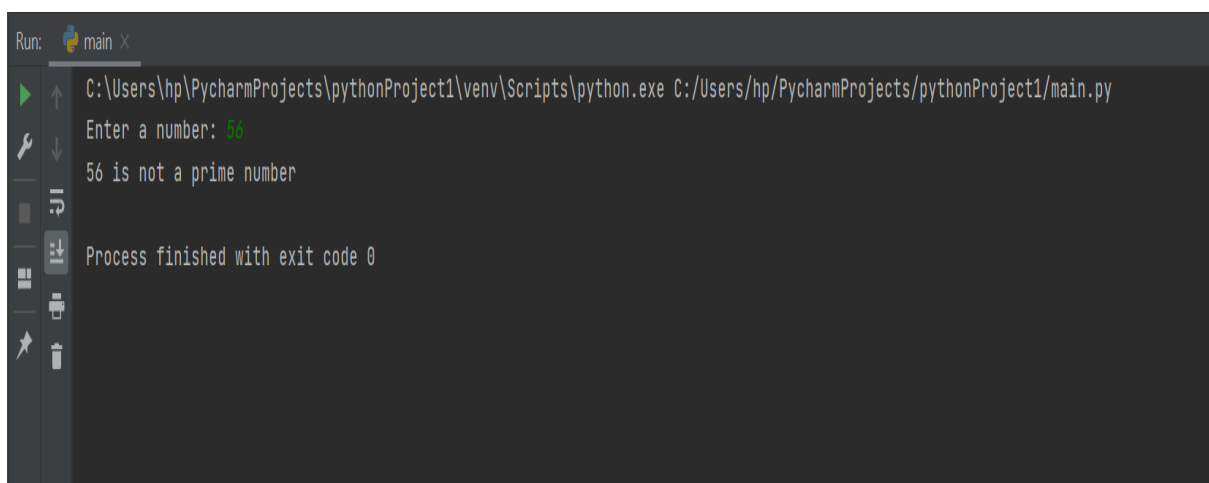
#### 4) Python Program to Check if a Number is a Prime Number

```
num = int(input("Enter a number: "))  
if num > 1:  
    for i in range(2, num):  
        if (num % i) == 0:  
            print(num, "is not a prime number")  
            break  
    else:  
        print(num, "is a prime number")  
  
else:  
    print(num, "is not a prime number")
```



The screenshot shows a Python IDE's run console. The command prompt shows the execution of a Python script. The user input is 7, and the output is "7 is a prime number". The process finished with exit code 0.

```
Run: main x  
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py  
Enter a number: 7  
7 is a prime number  
Process finished with exit code 0
```

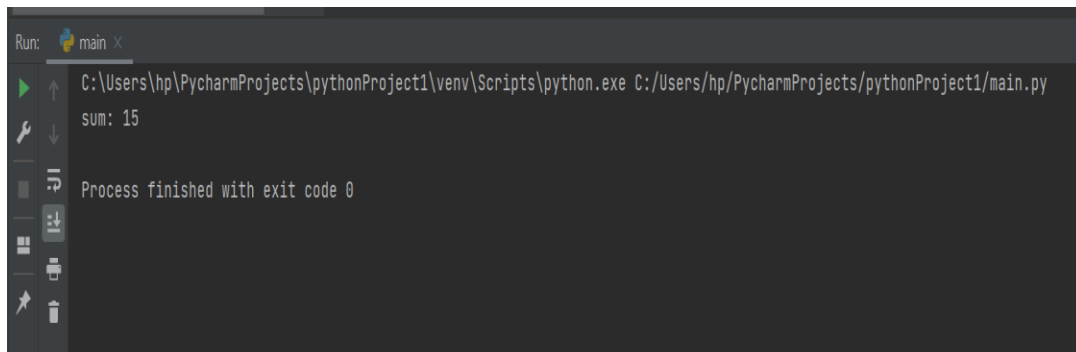


The screenshot shows a Python IDE's run console. The command prompt shows the execution of a Python script. The user input is 56, and the output is "56 is not a prime number". The process finished with exit code 0.

```
Run: main x  
C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py  
Enter a number: 56  
56 is not a prime number  
Process finished with exit code 0
```

### 5) Python Program to Find the Sum of the Digits of the Number.

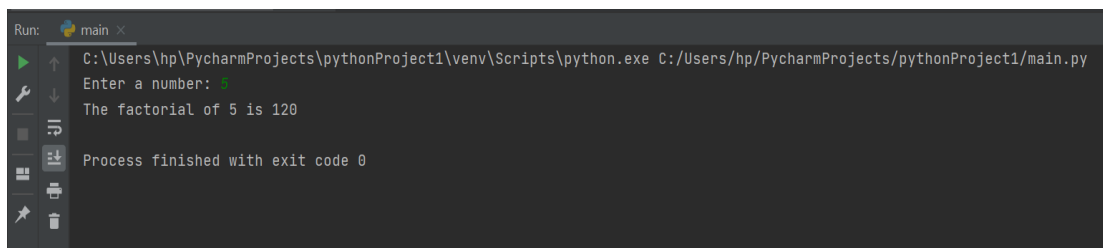
```
def getSum(n):  
    sum = 0  
    for digit in str(n):  
        sum += int(digit)  
    return sum  
  
n = 12345  
  
print("sum:",getSum(n))
```



The screenshot shows a dark-themed IDE window with a 'Run' tab. The command prompt displays the execution of a Python script: 'C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py'. The output is 'sum: 15'. Below the command prompt, it states 'Process finished with exit code 0'. The left sidebar contains standard IDE icons for running, debugging, and viewing files.

### 6) Python Program to Find the Factorial of the Number

```
num = int(input("Enter a number: "))  
  
factorial = 1  
  
if num < 0:  
    print("Sorry, factorial does not exist for negative numbers")  
elif num == 0:  
    print("The factorial of 0 is 1")  
else:  
    for i in range(1, num + 1):  
        factorial = factorial * i  
    print("The factorial of", num, "is", factorial) 5
```



The screenshot shows a dark-themed IDE window with a 'Run' tab. The command prompt displays the execution of a Python script: 'C:\Users\hp\PycharmProjects\pythonProject1\venv\Scripts\python.exe C:/Users/hp/PycharmProjects/pythonProject1/main.py'. The input is 'Enter a number: 5'. The output is 'The factorial of 5 is 120'. Below the command prompt, it states 'Process finished with exit code 0'. The left sidebar contains standard IDE icons for running, debugging, and viewing files.