Assignment 4

Q. Write a program in Python to accept the number and Compute

1. Square root of number,

2. Square of number,

3. Cube of number,

4. Check for prime,

5. Factorial of number

6. Prime factors

MAIN :

```
import module1 as M1

import module2 as M2

import module3 as M3



if __name__ == "__main__":

   num1=int(input("Enter number 1 : "))

   num2=int(input("Enter number 2 : "))



   print("Square root of ", num1, " : ", M1.sqrt(num1))

   print("Square root of ", num2, " : ", M1.sqrt(num2))

   print("Square of ", num1, " : ", M3.squr(num1))

   print("Square of ", num2, " : ", M3.squr(num2))

   print("Cube of ", num1, " : ", M3.cube(num1))
```

```
print("Cube of ", num2, " : ", M3.cube(num2))

print(num1, "is prime : ", M2.prime(num1))

print(num2, "is prime : ", M2.prime(num2))

print("Factorial of ", num1, " : ", M2.factorial(num1))

print("Factorial of ", num2, " : ", M2.factorial(num2))

print("Prime factors of ", num1, " : ", M2.primefact(num1))

print("Prime factors of ", num2, " : ", M2.primefact(num2))
```

Module 1 :

```
def addition(num1, num2):

    sum = num1 + num2

    return (sum)


def sqrt(num1):

    return ((num1)**(1/2))
```

Module2 :

```
def prime(num1):

    flag = 'True'

    for i in range(num1-2):

        if ((num1 % (i+2)) == 0):

            flag = 'False'

            break

    return flag
```

```
def factorial(num1):
   mul=1
   for i in range(num1):
       mul=mul*(i+1)
   return mul



def primefact(num1):
   l1 =[]
   for i in range(2,num1):
       flag = 0
       for j in range(2,i):
           if ((i % j) == 0):
               flag += 1
       if (flag == 0):
           l1.append(i)
   return l1
```

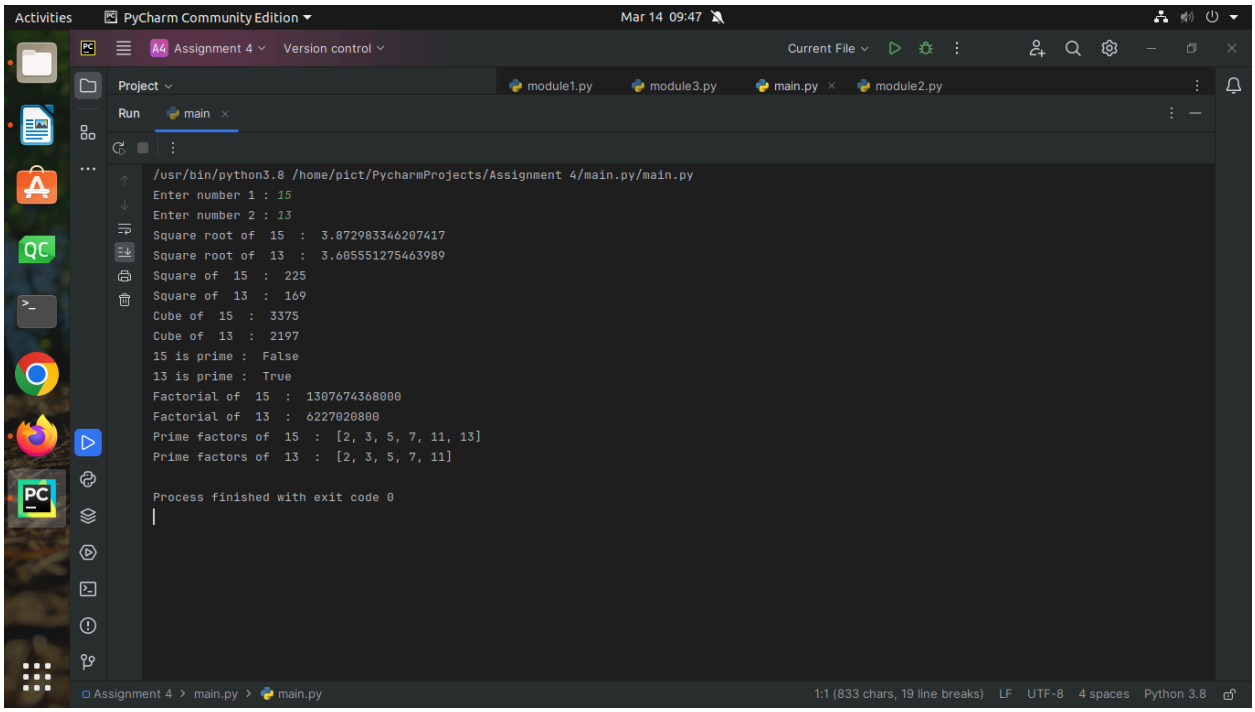
Module3 :

```
def cube(num1):
   return ((num1)**(3))



def squr(num1):
   return ((num1)**(2))
```

OUTPUT :


Activities
PyCharm Community Edition
Mar 14 09:47
Assignment 4
Version control
Current File
Project
module1.py
module3.py
main.py
module2.py
Run
main
/usr/bin/python3.8 /home/pict/PycharmProjects/Assignment 4/main.py/main.py
Enter number 1 : 15
Enter number 2 : 13
Square root of 15 : 3.872983346207417
Square root of 13 : 3.605551275463989
Square of 15 : 225
Square of 13 : 169
Cube of 15 : 3375
Cube of 13 : 2197
15 is prime : False
13 is prime : True
Factorial of 15 : 1307674368000
Factorial of 13 : 6227020800
Prime factors of 15 : [2, 3, 5, 7, 11, 13]
Prime factors of 13 : [2, 3, 5, 7, 11]
Process finished with exit code 0
Assignment 4 > main.py > main.py
1:1 (833 chars, 19 line breaks)
LF
UTF-8
4 spaces
Python 3.8