

Q1-CODE

```
Q1.py - C:\Users\muham\Desktop\Assignment_05\Q1.py (3.8.0)
File Edit Format Run Options Window Help

def fact(num):
    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)
try:
    num = int(input('Enter Number: '))
except:
    print('Enter Integer Numbers')
else:
    fact(num)

Ln: 14 Col: 34
```

Q1-OUTPUT

```
Python 3.8.0 Shell
File Edit Shell Debug Options Window Help

Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:21:23) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q1.py =====
Enter Number: 6
The factorial of 6 is: 720
>>>
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q1.py =====
Enter Number: 0
The factorial of 0 is: 1
>>>
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q1.py =====
Enter Number: -4
Sorry, factorial does not exist for negative numbers
>>> |

Ln: 17 Col: 4
```

Q2-CODE

```
Q2.py - C:\Users\muham\Desktop\Assignment_05\Q2.py (3.8.0)
File Edit Format Run Options Window Help

def string(s):
    d={"UPPER_CASE":0, "LOWER_CASE":0}
    for c in s:
        if c.isupper():
            d["UPPER_CASE"]+=1
        elif c.islower():
            d["LOWER_CASE"]+=1
        else:
            pass
    print ("Original String : ", s)
    print ("No. of Upper case characters : ", d["UPPER_CASE"])
    print ("No. of Lower case Characters : ", d["LOWER_CASE"])

string('My Name is Muhammad Hamza A Khan')
```

Ln: 1 Col: 0

08:03 PM 11/12/2019

Q2-OUTPUT

```
Python 3.8.0 Shell
File Edit Shell Debug Options Window Help

Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:21:23) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q2.py =====
Original String : My Name is Muhammad Hamza A Khan
No. of Upper case characters : 6
No. of Lower case Characters : 20
>>> |
```

Ln: 8 Col: 4

08:03 PM 11/12/2019

Q3-CODE

```
Q3.py - C:\Users\muham\Desktop\Assignment_05\Q3.py (3.8.0)
File Edit Format Run Options Window Help
l=[1,4,44,55,78,99,97,114,118]

def printEvenNo(List):
    print('Given List ',List)
    print('Even Numbers In A List Are:')
    for i in List:
        if i%2==0:
            print(i)

printEvenNo(l)
```

Ln: 1 Col: 0

08:04 PM 11/12/2019

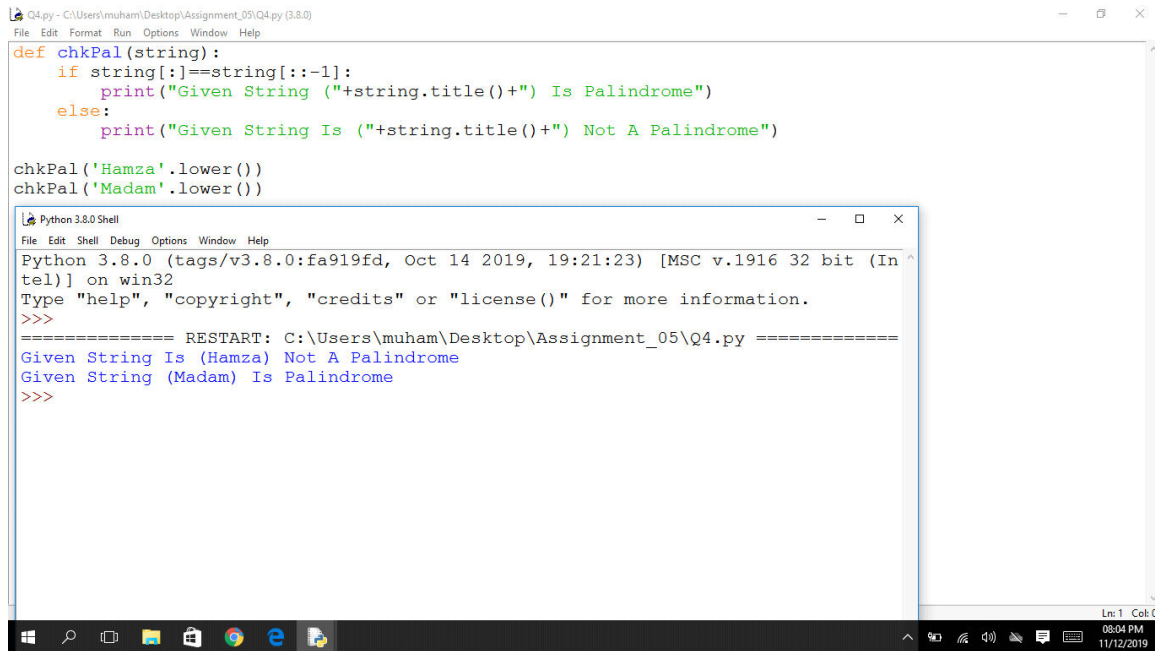
Q3-OUTPUT

```
Python 3.8.0 Shell
File Edit Shell Debug Options Window Help
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:21:23) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q3.py =====
Given List [1, 4, 44, 55, 78, 99, 97, 114, 118]
Even Numbers In A List Are:
4
44
78
114
118
>>> |
```

Ln: 12 Col: 4

08:04 PM 11/12/2019

Q4-CODE & OUTPUT



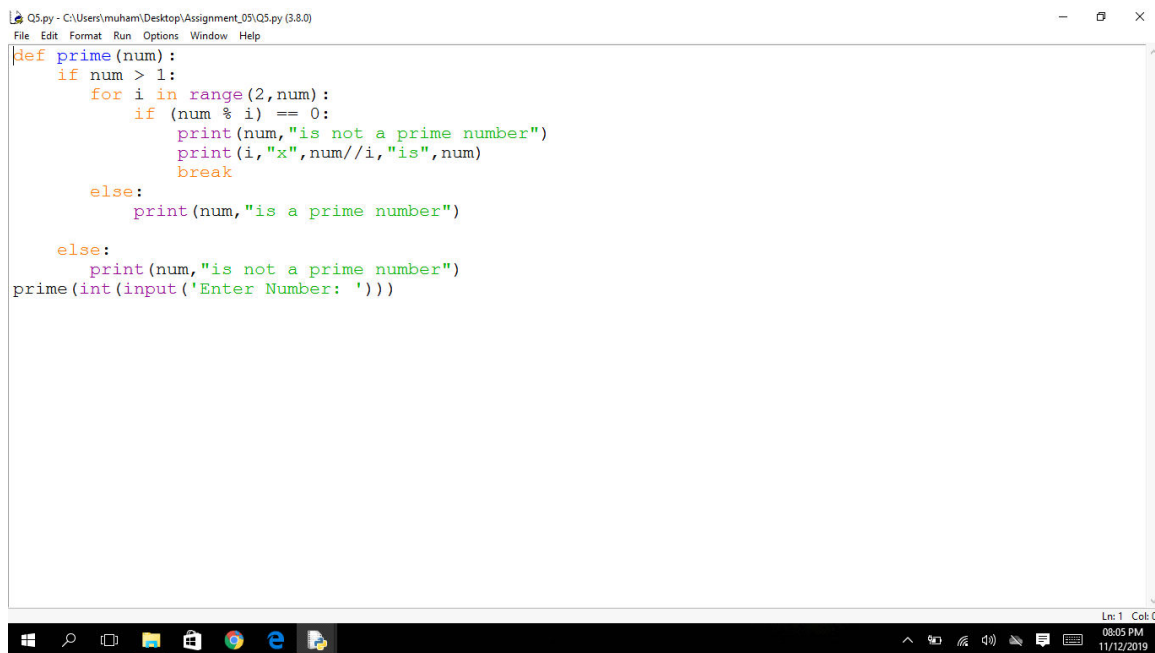
The screenshot shows a Python IDE window titled 'Q4.py - C:\Users\muham\Desktop\Assignment_05\Q4.py (3.8.0)'. The code defines a function `chkPal(string):` that checks if a string is a palindrome. It uses slicing to compare the string with its reverse. The function is called with `chkPal('Hamza'.lower())` and `chkPal('Madam'.lower())`. Below the code, a 'Python 3.8.0 Shell' window displays the output: 'Given String Is (Hamza) Not A Palindrome' and 'Given String (Madam) Is Palindrome'. The taskbar at the bottom shows the date and time as 08:04 PM on 11/12/2019.

```
def chkPal(string):
    if string[:] == string[::-1]:
        print("Given String (" + string.title() + ") Is Palindrome")
    else:
        print("Given String Is (" + string.title() + ") Not A Palindrome")

chkPal('Hamza'.lower())
chkPal('Madam'.lower())
```

```
Python 3.8.0 Shell
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:21:23) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q4.py =====
Given String Is (Hamza) Not A Palindrome
Given String (Madam) Is Palindrome
>>>
```

Q5-CODE



The screenshot shows a Python IDE window titled 'Q5.py - C:\Users\muham\Desktop\Assignment_05\Q5.py (3.8.0)'. The code defines a function `prime(num):` that checks if a number is prime. It uses a loop to test divisibility from 2 to `num-1`. If a divisor is found, it prints that the number is not prime and the factors. Otherwise, it prints that the number is prime. The function is called with `prime(int(input('Enter Number: ')))`. The taskbar at the bottom shows the date and time as 08:05 PM on 11/12/2019.

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

Q5-OUTPUT

```
Python 3.8.0 Shell
File Edit Shell Debug Options Window Help
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:21:23) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q5.py =====
Enter Number: 11
11 is a prime number
>>>
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q5.py =====
Enter Number: 115
115 is not a prime number
5 x 23 is 115
>>> |
```

Q6-CODE

```
Q6.py - C:\Users\muham\Desktop\Assignment_05\Q6.py (3.8.0)
File Edit Format Run Options Window Help
L=[]
def shoppingCart(*items):
    for i in items:
        L.append(i)
        print("You bought:",i)
    print('\nYour Shopping List are/is:',L)
shoppingCart("Shirt","Touser","Shoes","Toys","Sweater")
```

Q6-OUTPUT

```
Python 3.8.0 Shell
File Edit Shell Debug Options Window Help
Python 3.8.0 (tags/v3.8.0:fa919fd, Oct 14 2019, 19:21:23) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\muham\Desktop\Assignment_05\Q6.py =====
You bought: Shirt
You bought: Touser
You bought: Shoes
You bought: Toys
You bought: Sweater

Your Shopping List are/is: ['Shirt', 'Touser', 'Shoes', 'Toys', 'Sweater']
>>> |
```

Ln: 12 Col: 4

08:05 PM
11/12/2019