

## Problem:

### 1. Python Program to Compute the Power of a Number

```
a=int(input("Enter any number:"))
power=int(input("Enter power:"))
result=a**power
print("Power of number is",result)
```

IDLE Shell 3.10.4

File Edit Shell Debug Options Window Help

Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.

>>>

===== RESTART: C:/Users/Nandini Avinashi/Documents/ass.py =====

Enter any number:3

Enter power:5

Power of number is 243

<<<

### 2. Python Program to Find LCM

```
def lcm(a, b):
```

```
    if a > b:
```

```
        greater = a
```

```
    else:
```

```
        greater = b
```

```
    while(True):
```

```
        if((greater % a == 0) and (greater % b == 0)):
```

```
            lcm = greater
```

```
            break
```

```
        greater += 1
```

```
    return lcm
```

```
n1 = 54
```

```
n2 = 24
```

```
print("The L.C.M. is", lcm(n1, n2))
```

```
IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Nandini Avinashi/Documents/ass.py =====
The L.C.M. is 216
```

### 3. Python Program to check if given array is Monotonic

def Monotonic(A):

    return (all(A[i] <= A[i + 1] for i in range(len(A) - 1)) or all(A[i] >= A[i + 1] for i in range(len(A) - 1)))

A = [6, 7, 4, 4]

print(Monotonic(A))

```
IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Nandini Avinashi/Documents/ass.py =====
False
```

### 4. Python program to print all negative numbers in a range

start = int(input("Enter the start of range: "))

end = int(input("Enter the end of range: "))

for i in range(start, end + 1):

    if i < 0:

        print(i, end = " ")

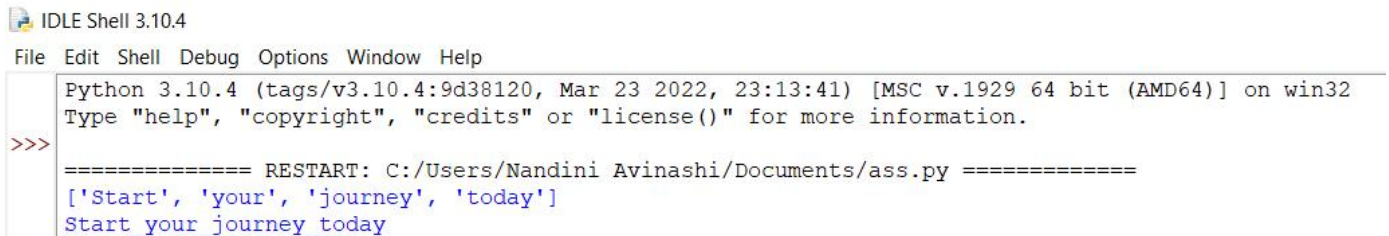
```
IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Nandini Avinashi/Documents/ass.py =====
Enter the start of range: -10
Enter the end of range: 9
-10 -9 -8 -7 -6 -5 -4 -3 -2 -1
```

### 5.A. Python program to split and join a string

```
A = 'Start your journey today'
```

```
print(A.split(" "))
```

```
print("_".join(A.split()))
```



```
IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Nandini Avinashi/Documents/ass.py =====
['Start', 'your', 'journey', 'today']
Start_your_journey_today
```

### B. Python Check if a given string is binary string or not

```
import re
```

```
input="1010"
```

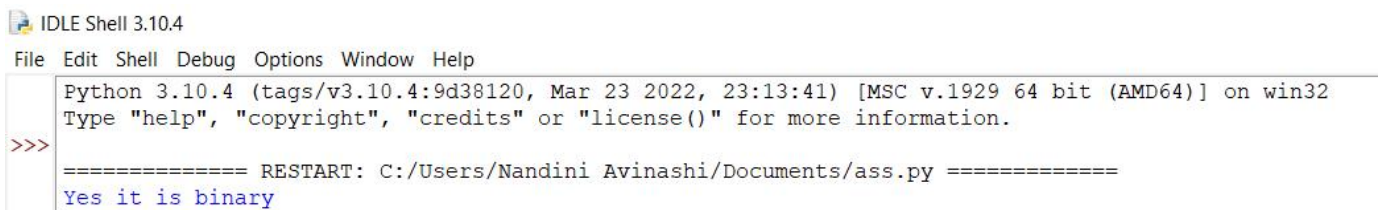
```
c=re.compile('[^01]')
```

```
if(len(c.findall(input))):
```

```
    print("No its not binary")
```

```
else:
```

```
    print("Yes it is binary")
```



```
IDLE Shell 3.10.4
File Edit Shell Debug Options Window Help
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Users/Nandini Avinashi/Documents/ass.py =====
Yes it is binary
```

### 6.A. Python program to convert time from 12 hour to 24 hour format

```
def convert24(str1):
```

```
    if str1[-2:] == "AM" and str1[:2] == "12":
```

```
        return "00" + str1[2:-2]
```

```
    elif str1[-2:] == "AM":
```

```
        return str1[:-2]
```


```
    elif str1[-2:] == "PM" and str1[:2] == "12":
```

```
        return str1[:-2]
```

else:

```
    return str(int(str1[:2]) + 12) + str1[2:8]
```

```
print(convert24("05:05:45 PM"))
```

 IDLE Shell 3.10.4

File Edit Shell Debug Options Window Help

```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

```
>>>
```

```
===== RESTART: C:/Users/Nandini Avinashi/Documents/ass.py =====
17:05:45
```

## B. Python program to find difference between current time and given time

```
def difference(h1, m1, h2, m2):
```

```
    t1 = h1 * 60 + m1
```

```
    t2 = h2 * 60 + m2
```

```
    if (t1 == t2):
```

```
        print("Both are same times")
```

```
        return
```

```
    else:
```

```
        diff = t2-t1
```

```
    h = (int(diff / 60)) % 24
```

```
    m = diff % 60
```


```
    print(h, ":", m)
```

```
if __name__ == "__main__":
```

```
    difference(8, 30, 11, 45)
```

```
    difference(12, 23, 18, 54)
```

```
    difference(15, 20, 15, 20)
```

 IDLE Shell 3.10.4

File Edit Shell Debug Options Window Help

```
Python 3.10.4 (tags/v3.10.4:9d38120, Mar 23 2022, 23:13:41) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
```

```
>>>
```

```
===== RESTART: C:/Users/Nandini Avinashi/Documents/ass.py =====
3 : 15
6 : 31
Both are same times
```