

Practical 2

```
# Practical 1  
print("Welcome to MSBTE University");
```

Output:

Welcome to MSBTE University

Practical 3

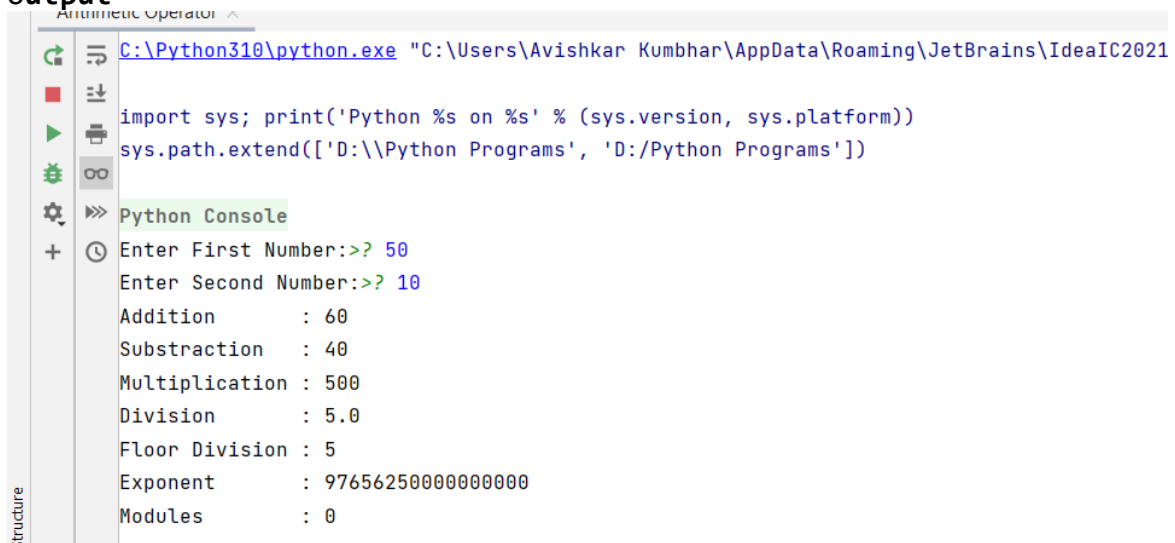
Program 1

Arithmetic Operator

```
no1=int(input("Enter First Number:"));
no2=int(input("Enter Second Number:"));

print("Addition      :",no1+no2);
print("Substraction  :",no1-no2);
print("Multiplication:",no1*no2);
print("Division      :",no1/no2);
print("Floor Division:",no1//no2);
print("Exponent      :",no1**no2);
print("Modules       :",no1%no2);
```

Output =



The screenshot shows a Python IDE with the following content:

```
C:\Python310\python.exe "C:\Users\Avishkar Kumbhar\AppData\Roaming\JetBrains\IdeaIC2021
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\Python Programs', 'D:/Python Programs'])

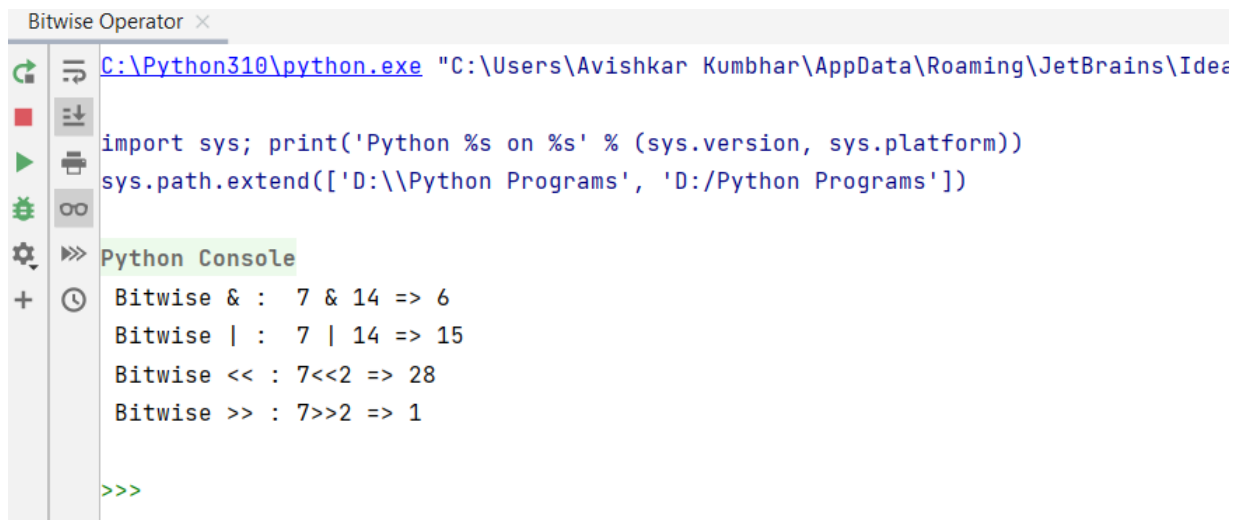
Python Console
Enter First Number:>? 50
Enter Second Number:>? 10
Addition      : 60
Substraction  : 40
Multiplication: 500
Division      : 5.0
Floor Division: 5
Exponent      : 976562500000000000
Modules       : 0
```

Program 2

#Bitwise Operator

```
print(" Bitwise & : 7 & 14 =>", 7&14);
print(" Bitwise | : 7 | 14 =>", 7|14);
print(" Bitwise << : 7<<2 =>", 7<<2);
print(" Bitwise >> : 7>>2 =>", 7>>2);
```

Output:



The screenshot shows a Python IDE window titled "Bitwise Operator". The script area contains the following code:

```
C:\Python310\python.exe "C:\Users\Avishkar Kumbhar\AppData\Roaming\JetBrains\Idea
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\\Python Programs', 'D:/Python Programs'])
```

The Python Console shows the output of the script:

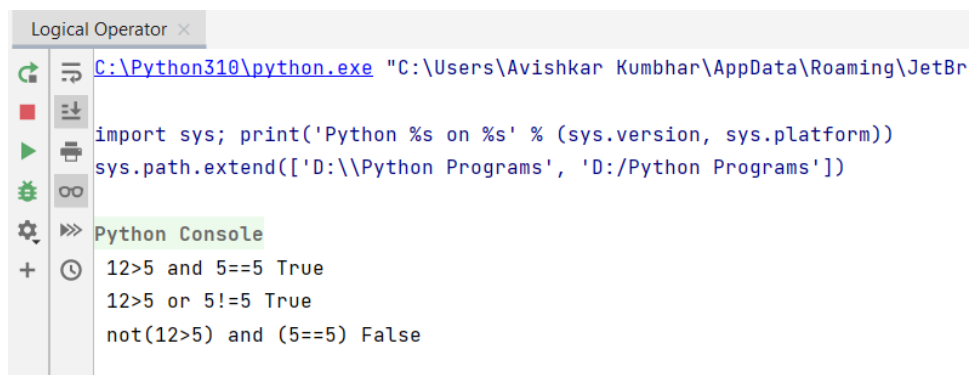
```
Python Console
Bitwise & : 7 & 14 => 6
Bitwise | : 7 | 14 => 15
Bitwise << : 7<<2 => 28
Bitwise >> : 7>>2 => 1
>>>
```

Program 3

#Logical Operator

```
print(" 12>5 and 5==5", 12>5 and 5==5)
print(" 12>5 or 5!=5", 12>5 or 5!=5)
print(" not(12>5) and (5==5)", not((12>5) and (5==5)));
```

Output:



The screenshot shows a Python IDE window titled "Logical Operator". The script area contains the following code:

```
C:\Python310\python.exe "C:\Users\Avishkar Kumbhar\AppData\Roaming\JetBr
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\\Python Programs', 'D:/Python Programs'])
```

The Python Console shows the output of the script:

```
Python Console
12>5 and 5==5 True
12>5 or 5!=5 True
not(12>5) and (5==5) False
```

Practical 4

Program 1

```
#Write a program to implement if  
no = int(input("Enter number:"));  
if no%2==0:  
    print("Number is Even:");
```

Output:

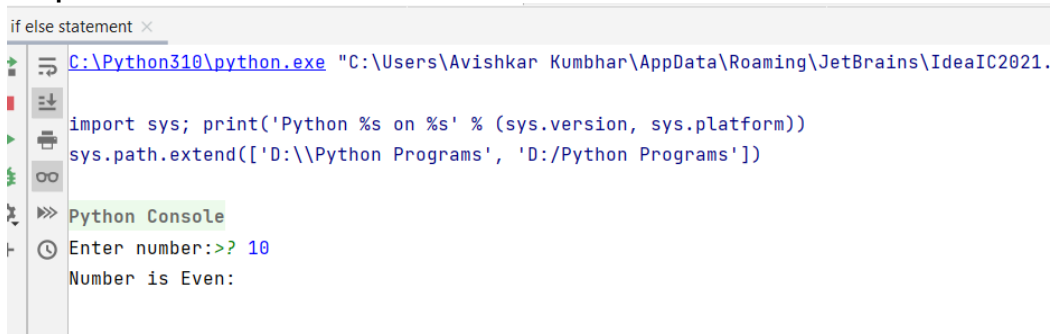


```
if statement x  
C:\Python310\python.exe "C:\Users\Avishkar Kumbhar\AppData\Roaming\JetBrains\IdeaIC2021.  
import sys; print('Python %s on %s' % (sys.version, sys.platform))  
sys.path.extend(['D:\\Python Programs', 'D:/Python Programs'])  
Python Console  
Enter number:>? 12  
Number is Even:  
>>>
```

Program 2

```
#Write a program to implement if-else  
no = int(input("Enter number:"));  
if no%2==0:  
    print("Number is Even:");  
else:  
    print("Number is odd");
```

Output:



```
if else statement x  
C:\Python310\python.exe "C:\Users\Avishkar Kumbhar\AppData\Roaming\JetBrains\IdeaIC2021.  
import sys; print('Python %s on %s' % (sys.version, sys.platform))  
sys.path.extend(['D:\\Python Programs', 'D:/Python Programs'])  
Python Console  
Enter number:>? 10  
Number is Even:  
>>>
```

Program 3

```

#write a program to implement nested if
s1 = int(input("Enter Subject 1 Marks:"));
s2 = int(input("Enter Subject 2 Marks:"));
s3 = int(input("Enter Subject 3 Marks:"));
s4 = int(input("Enter Subject 4 Marks:"));
s5 = int(input("Enter Subject 5 Marks:"));

total = s1+s2+s3+s4+s5;
Avg = total/5;

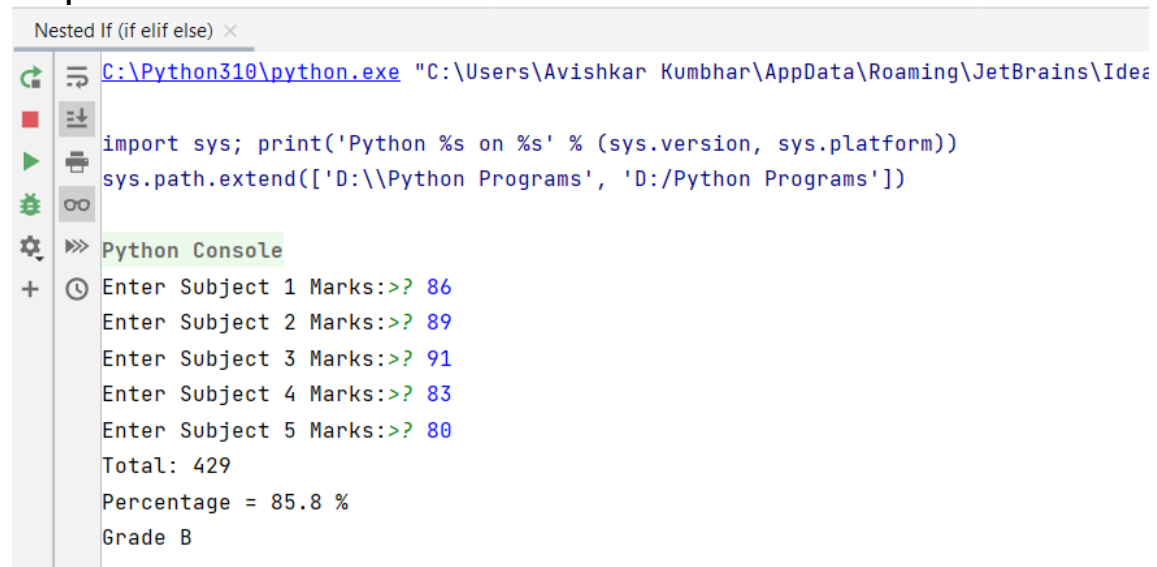
print("Total:",total);

print("Percentage =",Avg,"%");

if Avg>=90:
    print("Grade A");
elif Avg>=80:
    print("Grade B");
elif Avg>=70:
    print("Grade C");
elif Avg>=60:
    print("Distinction");
elif Avg<=50 and Avg>=35:
    print("Pass");
else:
    print("Fail!!!!");

```

Output:



The screenshot shows a Python IDE window titled "Nested If (if elif else) x". The code editor contains the following code:

```

import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\\Python Programs', 'D:/Python Programs'])

```

The Python Console shows the following output:

```

>>> Python Console
Enter Subject 1 Marks:>? 86
Enter Subject 2 Marks:>? 89
Enter Subject 3 Marks:>? 91
Enter Subject 4 Marks:>? 83
Enter Subject 5 Marks:>? 80
Total: 429
Percentage = 85.8 %
Grade B

```

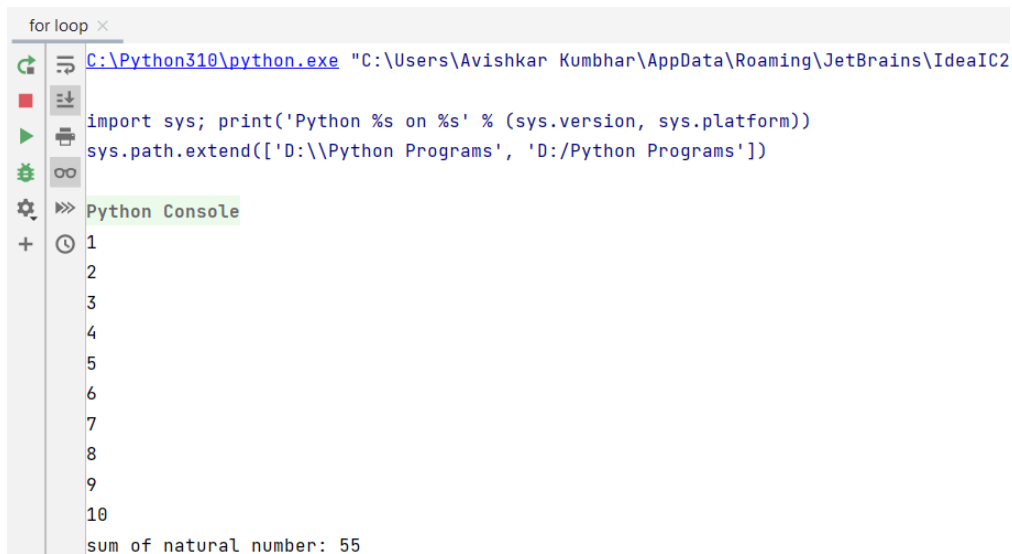
Practical 5

Program 1

#write python program to find sum of first 10 natural number using for loop.

```
sum = 0;
for i in range(1,11,1):
    print(i);
    sum = sum + i;
print("sum of natural number:",sum);
```

Output:

A screenshot of a Python IDE window titled 'for loop'. The code editor shows the following code:

```
import sys; print('Python %s on %s' % (sys.version, sys.platform))
sys.path.extend(['D:\\Python Programs', 'D:/Python Programs'])
```

 Below the code editor is a 'Python Console' panel. It displays the output of the program: the numbers 1 through 10, each on a new line, followed by the line 'sum of natural number: 55'. The console also shows the path 'C:\\Python310\\python.exe' and the file path 'C:\\Users\\Avishkar Kumbhar\\AppData\\Roaming\\JetBrains\\IdeaIC2'.

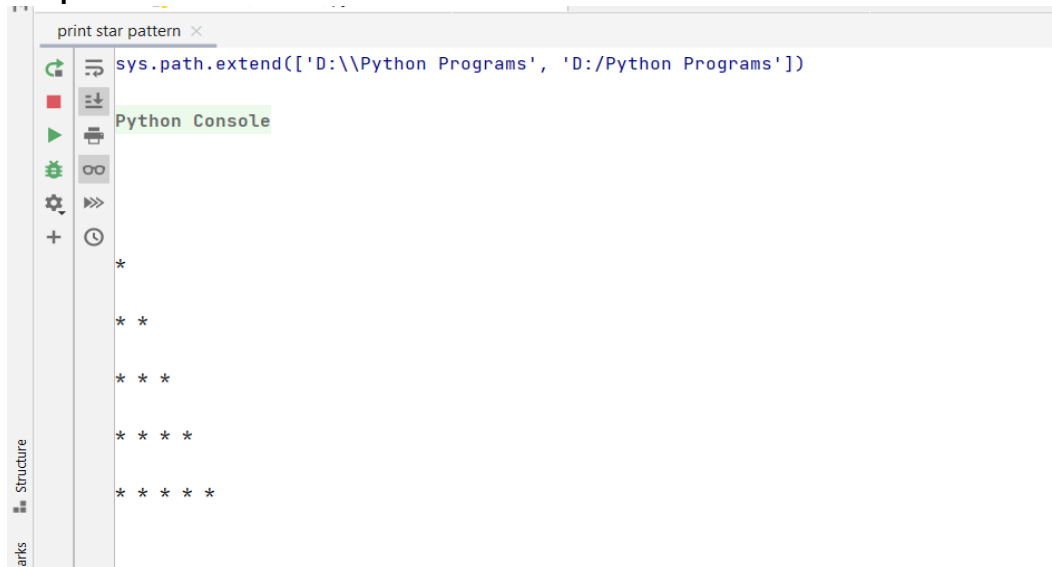
Program 2

```
'''
*
* *
* * *
* * * *
* * * * *
'''
```

```
for i in range(0,7,1):
    for j in range(i,1,-1):
```

```
    print("* ",end="");  
print("\n");
```

Output:

A screenshot of a Python IDE window titled 'print star pattern'. The code editor shows the line `sys.path.extend(['D:\\Python Programs', 'D:/Python Programs'])`. Below the editor is a 'Python Console' pane displaying a star pattern:

```
*  
* *  
* * *  
* * * *  
* * * * *
```

The IDE interface includes a sidebar with icons for running, debugging, and other functions, and a 'Structure' pane on the left.

Program 3

#write a program to print all even numbers between 1 to 100 using while loop.

```
i = 1;  
while i <=100:  
    if i%2==0:  
        print(i,sep=", ",end=" ");  
    i+=1;
```

Output:

```
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60  
62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100
```

Practical 6

```
#list operations
# creating the list
lst = []
n = int(input("Enter How many elements you wants to store.."))
for i in range(0,n):
    ele = int(input())
    lst.append(ele)
print("Your list is = ",lst);

#Updating the Lis
ch = 0;
while ch != 4:
    print("1.insert element")
    print("2.remove element")
    print("3.Delete the list")
    print("4.Exit:")
    ch = int(input())
    if ch == 1:
        index = int(input("At which index do you wants to store
elements:"))
        element = int(input("Enter elements which you wants to
insert:"))
        lst.insert(index,element);
        print("List after inserting:",lst);
    elif ch == 2:
        element = int(input("Enter elements which you wants to
remove from the list:"))
        lst.remove(element);
        print("List after removing:",lst);
    elif ch == 3:
        del(lst);
        print("List deleted...")
    elif ch == 4:
        print("Thank you")
        exit()
    else:
        print("Invalid input")
```


Output:

Enter How many elements you wants to store..>? 5

10

20

30

40

50

Your list is = [10, 20, 30, 40, 50]

1.insert element

2.remove element

3.Delete the list

4.Exit:

1

At which index do you wants to store elements:>? 3

Enter elements which you wants to insert:>? 33

List after inserting: [10, 20, 30, 33, 40, 50]

1.insert element

2.remove element

3.Delete the list

4.Exit:

2

Enter elements which you wants to remove from the list:>? 30

List after removing: [10, 20, 33, 40, 50]

1.insert element

2.remove element

3.Delete the list

4.Exit:

3

List deleted...

1.insert element

2.remove element

3.Delete the list

4.Exit:

4

Thank you