

# Python Programming

## Lab Assignment – 4

1. Write a program for arithmetic operators
2. Write a program for assignment operators
3. Write a program for Bitwise operators
4. Write a program to calculate greatest of three numbers.
5. Calculate the area of a circle.
6. Calculate the area of a triangle.
7. Calculate the area of a rectangle.
8. Calculate the area of a square.

1. Write a program for arithmetic operators

Sol :

```
a = 4
```

```
b = 5
```

```
print("The Addition is = ",a+b)
```

```
print("The Substraction is = ",a-b)
```

```
print("The Division is = ",a/b)
```

```
print("The Multiplication is = ",a*b)
```

2. Write a program for assignment operators

Sol :

```
x = 10
```

```
print("Initial value of x:", x)
```

```
x = 20
```

```
print("Value of x after simple assignment:", x)
```

```
x += 5
```

```
print("Value of x after x += 5:", x)
```

```
x -= 3
```

```
print("Value of x after x -= 3:", x)
```

```
x *= 2
```

```
print("Value of x after x *= 2:", x)
```

```
x /= 4
```

```
print("Value of x after x /= 4:", x)
```

```
x %= 3
```

```
print("Value of x after x %= 3:", x)
```

3. Write a program for Bitwise operators

Sol :

```
a = 10
```

```
b = 4
```

```
print(f"Initial values: a = {a}, b = {b}")
```

```
and_result = a & b
```

```
print(f"Bitwise AND (a & b): {and_result} (Binary: {bin(and_result)})")
```

```
or_result = a | b
```

```
print(f"Bitwise OR (a | b): {or_result} (Binary: {bin(or_result)})")
```

```
xor_result = a ^ b
```

```
print(f"Bitwise XOR (a ^ b): {xor_result} (Binary: {bin(xor_result)})")
```

```
not_result = ~a
```

```
print(f"Bitwise NO")
```

4. Write a program to calculate greatest of three numbers.

Sol :

```
a = int(input("Enter the first Number = "))
```

```
b = int(input("Enter the Second number = "))
```

```
c = int(input("Enter the third number = "))
```

```
if a >= b and a > c:
```

```
    print(f" A is greater than b and c ")
```

```
elif b >= a and b > c:
```

```
    print(f" B is greater than A and C ")
```

```
else:
```

```
    print(f" C is greater than A and B ")
```

5. Calculate the area of a circle.

Sol :

```
r = int(input("Enter the radius = "))
```

```
print(f"The Area of Circle is = ",3.14*r*r)
```

```
print(f"The Perimeter of Circle is = ",2*3.14*r)
```

6. Calculate the area of a triangle.

Sol.

```
base = 3
```

```
height = 4
```

```
print(f" The Area of Triangle is = ",1/2*base*height)
```

7. Calculate the area of a rectangle.

Sol :

Length = 4

Width = 6

Print(f"Area of Rectangle is = ", Length \*Width)

8. Calculate the area of a square.

Sol :

Side = 9

Print(f"Area of Square is = ", Side\*Side)

