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Branch – CSE(3<sup>rd</sup> year)


**DSC LAB Assignment - 1**

1. Write a python program to define an integer value and print the values.

```
✓ 0s  x = 5
print("value of Defined Integer x is :-",x)

↳ value of Defined Integer x is :- 5
```


2. Write a python program to find addition of two integer numbers taken as input from the user.

```
✓ 9s  x = int(input("Enter the first Number"))
y = int(input("Enter the Second Number"))
print("Sum of the given two numbers is:- ", x+y)

Enter the first Number40
Enter the Second Number35
Sum of the given two numbers is:- 75
```

3. Write a python program to check the given year is a leap year or not.


Code:-

```
✓ 5s  Y = int(input("Enter the year to be checked leap or not:- "))
if(Y%4!=0 or (Y%100==0 and Y%400!=0)):
    print(Y, " is not a leap year")
else:
    print(Y," is a leap year")

↳ Enter the year to be checked leap or not:- 2024
2024 is a leap year

Enter the year to be checked leap or not:- 1563
1563 is not a leap year
```

4. Write a python program for swapping the value of two integers.

```
 x = int(input("Enter the first Number: "))
y = int(input("Enter the Second Number: "))
z = x
x = y
y = z
print("swapped values of x and y are ",x,"and",y)

↳ Enter the first Number: 12
Enter the Second Number: 15
swapped values of x and y are 15 and 12
```

5. Write a python program for swapping the value of two integers without a third variable.

```
▶ x = int(input("Enter the first Number: "))
  y = int(input("Enter the Second Number: "))
  x = x+y
  y = x-y
  x = x-y
  print("swapped values of x and y are ",x,"and",y)
```

```
↳ Enter the first Number: 45
   Enter the Second Number: 23
   swapped values of x and y are  23 and 45
```

6. Write a python program to find the ASCII value of the given character.

```
▶ C = input("Enter a character")
  Ascii = ord(C)
  print("Ascii value of given character", C ,"is ", Ascii)
```

```
Enter a characterA
Ascii value of given character A is  65
```

7. Write a python program to calculate the square root of a number.

```
▶ from numpy import sqrt
  N = int(input("Enter a Number"))
  s = sqrt(N)
  print("Square root of Number ",N," is:- ",s)
```

```
↳ Enter a Number49
   Square root of Number 49  is:-  7.0
```

8. Write a python program to generate a random number between 0 and 15.

```
▶ import random
  N = int((random.random()*100)%16)
  print("Random Number between 0 to 15 is:- ", N)
```

```
Random Number between 0 to 15 is:-  6
```

9. Take a list of 10 numbers of your choice.  
Write a python program to print the following:
- Print all the elements after 5th index
  - Print all the elements before 6th index
  - Print all the elements between 2nd and 8th indices.

```
▶ Arr = [2,4,2,3,45,6,5,3,2,1]
print("Elements after index 5:- ", Arr[5:10])
print("Elements before index 6:- ", Arr[0:6])
print("Elements between index 2 and 8 are:- ", Arr[3:8])
```

```
↳ Elements after index 5:- [6, 5, 3, 2, 1]
   Elements before index 6:- [2, 4, 2, 3, 45, 6]
   Elements between index 2 and 8 are:- [3, 45, 6, 5, 3]
```

10. Write a python program to find the area of triangle.

```
▶ x = int(input("Enter the breadth of traingle: "))
  y = int(input("Enter the height of triangle: "))
  area = (x*y)/2
  print("Area of the traingle is:- ",area)
```

```
↳ Enter the breadth of traingle: 12
   Enter the height of triangle: 13
   Area of the traingle is:- 78.0
```