Python Programming - 2301CS404

Lab - 11

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Modules

01) WAP to create Calculator module which defines functions like add, sub,mul and div.

Create another .py file that uses the functions available in Calculator module.

In [9]:
```
import Calculator
print(Calculator.add(5,5))
print(Calculator.mul(5,5))
print(Calculator.sub(2,3))
```

```
10
25
-1
```

02) WAP to pick a random character from a given String.

In [33]:
```
import random
s1 = input("enter the string")
print(s1[random.randint(0,len(s1)-1)])
```

```
l
```

03) WAP to pick a random element from a given list.

In [31]:
```
l1 = [10,20,30,410,740,620,9620,8520]
print(random.choice(l1))
```

```
9620
```

04) WAP to roll a dice in such a way that every time you get the same number.

In [81]:
```
random.seed(1)
print(random.randint(1,10))
```

```
3
```

05) WAP to generate 3 random integers between 100 and 999 which is divisible by 5.

In [74]:
```
a = random.randrange(100, 999, 5)
b = random.randrange(100, 999, 5)
c = random.randrange(100, 999, 5)

print("Generated Numbers:", a, b, c)
```

```
Generated Numbers: 825 180 425
```

06) WAP to generate 100 random lottery tickets and pick two lucky tickets from it and announce them as Winner and Runner up respectively.

In [107…
```
l1 = []
while len(l1)!=100:
    n = random.randint(1,1000)
    if n not in l1:
        l1.append(n)
print(l1)

winner = random.choice(l1)
print('Winner : ',winner)
l1.remove(winner)
runnerup = random.choice(l1)
print('Runners up : ',runnerup)

# if n1 and n2 in l1 :
#     print("you are winner :")
# else:
#     print("you are looser ")
```

```
[679, 459, 400, 338, 647, 275, 993, 267, 658, 651, 249, 252, 62, 603, 958, 807, 6
05, 180, 359, 439, 620, 715, 574, 654, 535, 63, 927, 362, 561, 423, 552, 205, 72
9, 902, 550, 435, 942, 72, 731, 274, 762, 626, 739, 996, 771, 75, 258, 182, 1000,
99, 155, 61, 941, 209, 876, 873, 46, 55, 653, 94, 935, 833, 526, 481, 514, 380, 1
02, 321, 42, 130, 545, 34, 454, 681, 132, 917, 405, 782, 725, 921, 904, 457, 26,
755, 538, 277, 93, 257, 820, 334, 88, 310, 36, 881, 394, 60, 751, 268, 753, 134]
Winner :  902
Runners up :  99
```

07) WAP to print current date and time in Python.

In [111…
```
import datetime
print(datetime.datetime.now())
```

```
2025-02-10 13:18:46.334151
```

08) Subtract a week (7 days) from a given date in Python.

In [133…
```
import datetime

today = datetime.datetime.now()  # Get the current date and time
df2 = datetime.timedelta(days=7)  # Define a timedelta of 7 days

future_date = today-df2# Add timedelta to today's date
print(future_date)
```

```
2025-02-03 13:22:34.202856
```

09) WAP to Calculate number of days between two given dates.

In [164…
```
a = datetime.datetime(2025,2,8)
b = datetime.datetime(2025,2,10)
print(abs(a-b).days)
```

```
2
```

10) WAP to Find the day of the week of a given date.(i.e. wether it is sunday/monday/tuesday/etc.)

In [168…
```
a = datetime.datetime(2005,6,20)
print(a.strftime('%A'))
```

```
Monday
```

11) WAP to demonstrate the use of date time module.

In [171…
```
a = datetime.datetime(2005,6,20)
print(a.strftime('%A'))
```

```
Monday
```

12) WAP to demonstrate the use of the math module.

In [173…
```
import math
print(math.pi)
```

```
3.141592653589793
```

In [ ]: