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 [6]:
```
import Cal
print(Cal.Add(10,20))
print(Cal.Sub(10,20))
print(Cal.Mul(10,20))
print(Cal.Div(12,0))
print(Cal.Div(12,1))
```

```
30
-10
200
Error: Division by zero is not allowed
12.0
```

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

In [8]:
```
import random
s1 = input("Enter String")
print(s1[random.randint(0,len(s1)-1)])
```

```
d
```

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

In [9]:
```
import random
s1 = [10,20,3.0,40,50,60,70,80,980]
print(s1[random.randint(0,len(s1)-1)])
```

```
60
```

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

In [15]:
```
random.seed(10)
print(random.randint(1,6))
```

```
5
```

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

In [16]:
```
a = random.randrange(100,999,5)
b = random.randrange(100,999,5)
c = random.randrange(100,999,5)
print(a,b,c)
```

```
140 645 715
```

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 [20]:
```
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)
```

```
[444, 994, 425, 457, 252, 698, 282, 147, 633, 535, 183, 886, 123, 274, 467, 310, 16
9, 677, 665, 966, 841, 179, 797, 181, 492, 792, 356, 336, 446, 230, 6, 558, 730, 45,
340, 919, 328, 249, 82, 269, 459, 415, 597, 163, 400, 943, 891, 508, 690, 915, 248,
754, 538, 933, 279, 533, 495, 617, 512, 65, 171, 502, 691, 473, 920, 411, 140, 431,
555, 599, 358, 552, 398, 719, 170, 573, 452, 102, 992, 998, 426, 849, 37, 893, 3, 45
0, 549, 67, 52, 359, 95, 156, 112, 623, 465, 854, 819, 497, 143, 470]
Winner :  533
Runners up :  411
```

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

In [18]:
```
import datetime
print(datetime.datetime.now())
```

```
2025-02-10 13:14:26.431616
```

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

In [27]:
```
a = datetime.datetime.now()
b = datetime.timedelta(days = 7)
print(a-b)
```

```
2025-02-03 13:22:17.575423
```

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

In [33]:
```
a = datetime.datetime(2025,2,10)
b = datetime.datetime(2025,3,10)
print(abs(a-b).days)
```

```
28
```

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

In [37]:
```
a = datetime.datetime(2006,2,1)
print(a.strftime('%A'))
```

```
Wednesday
```

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

In [39]:
```
a = datetime.datetime(2006,2,1)
print(a.strftime('%c'))
```

```
Wed Feb  1 00:00:00 2006
```

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

In [42]:
```
import math
p = [3]
q = [1]
print (math.dist(p,q))
```

```
2.0
```

In [ ]: