python-programming-lab-11

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Python Programming - 2301CS404

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Lab - 11

1 Modules

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

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

[1]:
```
import calculator as cal

a = int(input("Enter 1st Number "))
b = int(input("Enter 2nd Number "))

print(f"Sum of two number is",cal.add(a,b))
print(f"Substraction of two number is",cal.sub(a,b))
print(f"Multiplication of two number is",cal.multiply(a,b))
print(f"Division of two number is",cal.divide(a,b))
```

```
Enter 1st Number  11
Enter 2nd Number  22
```

```
Sum of two number is 33
Substraction of two number is -11
Multiplication of two number is 242
Division of two number is 0
```

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

[7]:
```
import random as rd

temp = input("Enter a String ")

print(rd.choice(temp))
```

```
Enter a String neel gohel
e
```

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

[2]:
```
import random as rd

l1 = ["Neel", "Raj", "Shubham"]

print(rd.choice(l1))
```

```
Neel
```

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

[3]:
```
print(rd.randrange(1,2))
```

```
1
```

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

[4]:
```
import random

l1 = []

while len(l1)<3:
    a = random.randint(100,999)
    if(a%5==0):
        l1.append(a)
print(l1)
```

```
[210, 605, 140]
```

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

[5]:
```
import random as rd

l1 = []

for i in range(0,100):
    l1.append(rd.randrange(100,999))


print("Winner is ",rd.choice(l1))
print("Runner up is ",rd.choice(l1))
```

```
Winner is  194
Runner up is  580
```

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

[6]:
```
from datetime import datetime
print(datetime.now())
```

```
2025-02-10 15:56:58.660911
```

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

[7]:
```
import datetime

d1 = datetime.datetime.now()

print("Today_Date", d1)

d2 = d1 - datetime.timedelta(days=7)

print('before 7days:', d2)
```

```
Today_Date 2025-02-10 15:57:00.504418
before 7days: 2025-02-03 15:57:00.504418
```

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

[8]:
```
import random

d1 = datetime.datetime.now()

print("Today_Date", d1)

d2 = d1 + datetime.timedelta(days= random.randrange(1,7))
```

```
print("After days:", d2)

print("Day Diffrence" , d2-d1)
```

```
Today_Date 2025-02-10 15:57:02.459487
After days: 2025-02-11 15:57:02.459487
Day Diffrence 1 day, 0:00:00
```

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

[9]:
```
import datetime

d1 = datetime.datetime.now()

# print("Today_Date", d1)

d2 = d1 + datetime.timedelta(days= random.randrange(1,7))

# print("After days:", d2)

print(d2.strftime("%A"))
```

```
Thursday
```

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

[ ]:
```
from datetime import datetime
print(datetime.datetime.now())
```

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

[4]:
```
import math

print(math.factorial(5))
print(math.gcd(10,5))
print(math.ceil(5.25))
print(math.lcm(23,5))
print(math.pow(23,5))
print(math.sqrt(81))
```

```
120
5
6
115
```

```
6436343.0
9.0
```

[ ]: