11.1 - WAP to create a calc module that defines a function like addition, Subtraction, multiplication, Division and create another file that use calculator module

In [2]:

```
import file2 as c
a=int(input("A::"))
b=int(input("B::"))
op=input("Ennter Operater [+,-,*,/] :: ")
print("Ans is :: ",c.calc(a,b,op))
```

```
Ans is ::  20
```

11.2 - WAp to pick random character from given string.

In [3]:

```
import random as r
s=input("Enter String :: ")
print(r.choice(s))
```

```
l
```

11.3 - WAP to demonstrate the use of math module.

In [5]:

```
import math as m
print("pi :: ",m.pi)
print("e :: ",m.e)
print("tau :: ",m.tau)
print("nan :: ",m.nan)
print("inf :: ",m.inf)
print("ceil is :: ",m.ceil(2.345453))
print("floor is :: ",m.floor(2.345453))
print("factorial is :: ",m.factorial(5))
print("power is  :: ",m.pow(2,3))
print("fabs is :: ",m.fabs(-102.5))
print("fmodulo is :: ",m.fmod(10,3))
print("fsum is  :: ",m.fsum([1,2,3,4,5,6,7,8]))
print("sqrt is :: ",m.sqrt(4))
print("trunc  is :: ",m.trunc(10.9212434))
```

```
pi ::  3.141592653589793
e ::  2.718281828459045
tau ::  6.283185307179586
nan ::  nan
inf ::  inf
ceil is ::  3
floor is ::  2
factorial is ::  120
power is  ::  8.0
fabs is ::  102.5
fmodulo is ::  1.0
fsum is  ::  36.0
sqrt is ::  2.0
trunc  is ::  10
```

11.4 - WAP to demonstrate the use of datetime module.

In [8]:

```
import datetime as dt
date=input("Enter date as[dd-mm-yyyy] :: ")
date=dt.datetime.strptime(date,"%d-%m-%Y")
print("Today Date is :: ",date)
print("Formated date ::", date.strftime("%d, %b %Y %H::%M::%S"))
print("Weekday as [0-6] ::",date.weekday())
print("Weekday as [1-7] ::",date.isoweekday())
print("New date :: ",date.replace(hour=4,minute=27, second=52, microsecond=436210))
print("Date only ::",date.date())
print("Day only ::",date.day)
print("Month ::",date.month)
print("Year :: ",date.year)
```

```
Today Date is ::  2025-03-01 00:00:00
Formated date :: 01, Mar 2025 00::00::00
Weekday as [0-6] :: 5
Weekday as [1-7] :: 6
New date ::  2025-03-01 04:27:52.436210
Date only :: 2025-03-01
Day only :: 1
Month :: 3
Year ::  2025
```

11.5 - WAP to create custom module to find factorial of given number.

In [1]:

```
import file3 as f
a=int(input("Enter A :: "))
print(f.fact(a))
```

```
120
```

11.6 - WAP to pick random element from given list

In [4]:

```
import random
a = input("Enter elements: ")
print("Random pick:", random.choice(a) if a else "List is empty!")
```

```
Random pick: 8
```

11.7 - WAP to calculate circle,triangle, and rectangle area using math module.

In [5]:

```
import area as a

choice = input("Choose shape (circle/triangle/rectangle): ").strip().lower()

if choice == "circle":
    r = int(input("Enter radius: "))
    print("Area of Circle:", a.circle_area(r))

elif choice == "triangle":
    b = int(input("Enter base: "))
    h = int(input("Enter height: "))
    print("Area of Triangle:", a.triangle_area(b, h))

elif choice == "rectangle":
```

```
    l = int(input("Enter length: "))
    w = int(input("Enter width: "))
    print("Area of Rectangle:", a.rectangle_area(l, w))

else:
    print("Invalid choice!")
#---------------------------------------------------------------------------------
# Choose shape (circle/triangle/rectangle):  circle
# Enter radius:  5
# Area of Circle: 78.53981633974483

# Choose shape (circle/triangle/rectangle):  triangle
# Enter base:  10
# Enter height:  6
# Area of Triangle: 30.0
```

```
Area of Rectangle: 10
```

11.8 - WAP to print thencurrent date and time

In [6]:

```
from datetime import datetime
now = datetime.now()  # Get current date and time
print("Current Date and Time:", now)
```

```
Current Date and Time: 2025-03-01 12:12:08.839742
```

11.9 - WAP to find the day of week of given date.

In [7]:

```
from datetime import datetime
date_input = input("Enter date (YYYY-MM-DD): ")
date_obj = datetime.strptime(date_input, "%Y-%m-%d")
day_of_week = date_obj.strftime("%A")
print("Day of the Week:", day_of_week)
```

```
Day of the Week: Saturday
```

11.10 - WAP to print persons age in years and also print how many days remaining for his next birthday.

In [ ]:

```

```

11.11 - WAP to create custom Module to define a function that check odd or even number

In [11]:

```
import file1 as odd_even
n=int(input("Enter N ::"))
print(odd_even.check(n))
```

```
Odd Nummber
```