Date:- 06/08/25

Task 3a: weather report using datetime

Aim:

To find the weather report using datetime

Algorithm:

1. import the datetime class from the datetime module
2. Get the current date and time using datetime.now()
3. format the datetime using strftime()
   - %A → fully weekday name
   - %d → zero-padded day of month
   - %B → full month name
   - %y → four-digit year.
4. print the formatted date and time
5. Append or display any wheather info.

program:

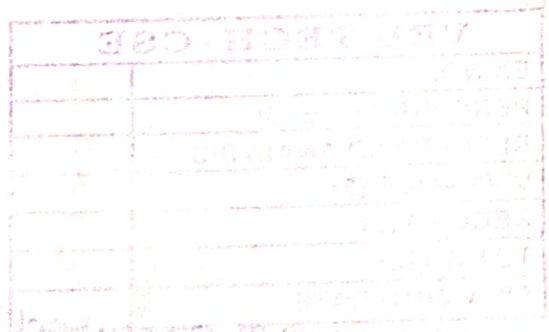
```
from datetime import datetime
def display_datetime():
    now=datetime.now()
    formatted=now.strftime("%A %d %B %y")
    Print (formatted)
if __name__=="main":
display_datetime()
```

Result:-

Thus the weather report using datetime program Successfully completed

Output

wednesday, 6 August 2025 at 7:30pm.



Task 3.2:

Aim:

provide reusable math utilizes in a separate module and demonstrate how to import and use them in a main script.

Algorithm:

1. create module: In mymath.py, define.
   - factorial(n) - computes factorial using a loop
   - is_prime(n) - checks primality by testing divisibity up to the square root
2. in main script: import both functions from mymath
3. Get user input: ask for an integer n
4. call functions: use factorial(n) to compute n!
5. display results: print factorial value and primality status.

program:

```
def factorial(n: int)->int
 if n<0:
   raise valueerror("negative numbers not allowed")
 result = 1
    for i in range(1,n+1):
    result *= i
  return result
def is_prime(n:int) -> bool:
if n<2:
    return false
  if n % 2 ==0:
    return n==2
from math import isqrt
 For i in range(3, isqrt(n)+1, 2):
  if n % i ==0:
  returnfalse
 return true.
```

Result:

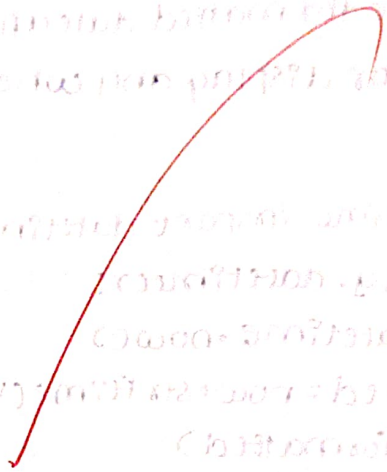
Thus the create and use your own module program Executed successfully.

O/P

Enter a non-negative integer : 5

factorial of 5 is 120

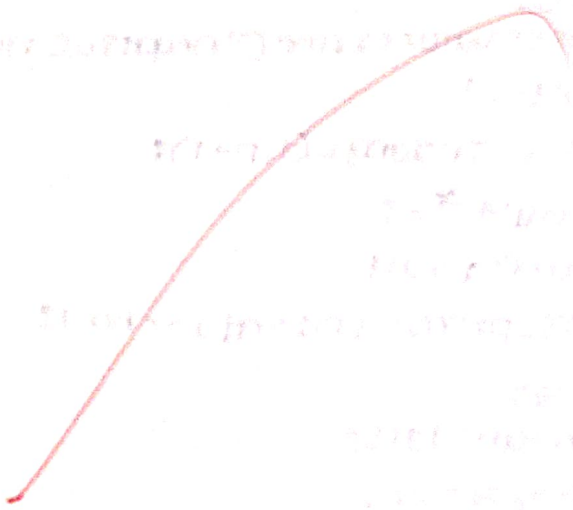
5 is a prime.



O/P

Enter amount in INR: 1000

1000.00 INR is equal to 12.00 USD.



Task 3.3: currency converter using a custom package.

Aim: To find currency converter using a custom package of the program

Algorithm:

1. Make a folder named currency with __init__.py containing a module converter.py
2. Define the amount, rate function inside converter.py: multiply amount by rate and return.
3. Import the convert function from currency.converter
4. Prompt the user for the amount in INR and define or input the exchange rate
5. Call converter (amount, rate) and print the conversion result as USD

Program:

```
from currency.converter import convert
def main():
    try:
        amount_inr=float(input("Enter amount in INR:"))
    except ValueError:
        print("Invalid input-please enter a numeric value.")
    rate=0.012
    amount_usd=convert(amount_inr,rate)
    print(f"{amount_inr:.2f} INR is equal to ${amount_usd:.2f} USD")
if __name__=="__main__":
    main()
```

VEL TECH - CSE	
EX NO.	
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	20
SIGN WITH DATE	13/8/25

Result:

Thus the currency converter using a custom package executed successfully!

13/8/25