

Task 3: Importing python modules and packages in python programming

(a) Weather report using datetime

Aim:- To display the current date time in the specified format using the datetime module.

Algorithm-

1. Import the datetime module.
2. Get the current date and time using `datetime.now()`
3. Format the date and time using `strftime()` to match the required format:
"Day, DD month, YYYY, HH:MM AM/PM".
4. Display the formatted date and time.

Program-

```
# Weather-report.py
import datetime
# Step 2: Get current date and time.
now = datetime.datetime.now()
# Step 3: Format
formatted = now.strftime("%A, %d %B %Y, %I:%M %p")
# Step 4: Display
print("Current date & time:", formatted)
```

Result:-

Successfully displayed the current date and time in the specified format using the datetime module.

Output

Current Date & Time: Wednesday, 06 August
2025, 07:30 PM.

AIA TRAIL - QR5	
EX NO.	5
PHOTOGRAPHY (2)	✓
RESCUE / PRO ANALYSIS (2)	✓
AIA ACC (2)	✓
RESCUE (2)	✓
TOURIST	✓
DATE	06/08/2025

(b) create and use your own Module

Aim) - To create a custom math module with factorial() and is_prime() functions, and use them in a main program.

Algorithm:-

1. Create a file mymath.py.
2. In mymath.py, define:
 - factorial(n) → calculates factorial of n.
 - is_prime(n) → checks if n is a prime number.
3. Create a main program to import and use mymath functions.
4. Display the results.

mymath.py

```
def factorial(n):  
    if n==0 or n==1:  
        return 1  
    return n * factorial(n-1)  
  
def is_prime(n):  
    if n<=1:  
        return False  
    for i in range(2, int(n**0.5) + 1):  
        if n % i == 0:  
            return False  
    return True
```

main.py

import mymath

num = 5

```
print(f"factorial of {num}:", mymath.factorial(num))
```

Sample output

factorial of 5: 120

Is 11 prime? : True

check - num = 11

Print(f"Is {check-num} prime? : ", mymath.is_prime (check-num)).

120 00.01 = AMI 0001

Results

created a python module mymath.py and successfully used its functions in a main program.

Output

1000 INR = 12.00 USD.

(c) Currency converter using a custom package

Aim:-

To create a custom package for currency conversion and use it to convert INR to USD.

Algorithm:-

1. Create a folder currency.
2. Inside currency, create:
 - -init-.py (empty file to make it a package)
 - converter.py containing a convert(amount, rate) function.
3. Create a main program to import and use currency.converter.
4. Display the converted currency value.

Currency/converter.py

def convert(amount, rate):
 return amount * rate

main.py

from currency import converter
amount_in_inr = 1000
rate_inr_to_usd = 0.012
amount_in_usd = converter.convert(amount_in_inr,
 rate_inr_to_usd)
print(f"amount-in-inr {INR} = {amount_in_inr} USD \$ {1.2f} USD")

VEL TECH - CSE	
EX NO.	3
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	15

Result:-

Successfully created a custom package for currency conversion and converted INR to USD.