

06/05/25

Task 3:- Importing python modules and packages in python

Programming,

(a) Weather Report using datetime:-

Aim:-

To display the current date and time in a specific 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 as: Day, DD Month YYYY, HH:MM AM/PM.
4. Print the formatted output.

Program:-

```
# Weather Report using datetime from datetime
import datetime
now = datetime.now()
formatted = now.strftime("%A, %d %B %Y,
                           %I: %M %P")
print("Current Date & Time:", formatted)
```

Result:-

The Program successfully displays the current date and time in the desired format.

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Task 3:- Import

(a) Weather

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Algorithm

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Output:-

Current Date & Time : Monday, 11 August 2025,

02:45 PM.

```
# Factorial Program
number = int(input("Enter a number: "))
factorial = 1
for i in range(1, number + 1):
    factorial *= i
print("Factorial of", number, "is", factorial)
```

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SIGN WITH DATE	

The program correctly calculates the factorial of a given number using a for loop.

6/5/25 (b) Create and use your own module

Aim:-

To create a custom module with reusable math functions and import it into a main program.

Algorithm:-

1. Create a file mymath.py.
2. Define factorial(n) and is_prime(n) functions inside it.
3. In the main file, import mymath.
4. Call both functions and display results.

Module: mymath.py

Python Program:-

mymath.py

def factorial(n):

 result = 1

 for i in range(1, n+1):

 result *= i

 return result

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

Output:-

Factorial of 5: 120

Is 7 Prime? True

Main Program:-

```
# main.py
import mymath
num = 5
Print(f"Factorial of {num}: ", mymath.factorial
(num))
check_num = 7
Print(f"Is {check_num} Prime?", mymath.is_
Prime(check_num))
```

Result:-

The custom module was created and used successfully.

Output:-

Enter amount in INR: 1000

1000.0 INR = 12.00 USD

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6/8/25 (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 named currency.
2. Inside it, create `__init__.py` (empty)
And `converter.py`.
3. Define `convert(amount, rate)` in `converter.py`.
4. Import the module in the main program.
5. Take INR amount, convert to USD using a
Given rate.

Package structure:-

currency/

`__init__.py`

`converter.py`

Module: `converter.py`:-

`# converter.py`

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

Main Program:-

`# main.py`

`from currency import converter`

`inr_amount = float(input("Enter amount in INR:"))`

`usd_rate = 0.012 # Example rate`

`usd_amount = converter.convert(inr_amount, usd_rate)`

`print(f"{inr_amount} INR = {usd_amount} USD")`

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PERFORMANCE (5)	3
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	5
TOTAL (20)	18
DATE WITH DATE	

Result:- The package works correctly to convert currency
From INR to USD.