

06/08/25

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.

6/8/25 (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

Code 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 released successfully.

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(C) 6

Output:-

Enter amount in INR: 1000

1000.0 INR = 12.00 USD

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(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)
3. Create converter.py.
4. Define convert(amount, rate) in converter.py.
5. Import the module in the main program.
6. Take INR amount, convert to USD using a given date.

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  
int_amount = float(input("Enter amount in INR:"))  
usd_rate = 0.012 # Example rate.  
usd_amount = converter.convert(int_amount, usd_rate)  
print(f"INR amount {int_amount} INR = {usd_amount} USD")
```

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PERFORMANCE (5)	30 (rate)
RESULT AND ANALYSIS (5)	25 (USD)
VIVA VOCE (5)	25 (amount: 25 USD)
RECORD (5)	25
TOTAL (20)	100
30 WITH DATE	

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