Experiment No: 5 - Minimum Number of Notes for a Given Amount

Aim

To design and implement a Python program that calculates the **minimum number of currency notes** required to represent a given amount in rupees using available denominations.

Problem Statement

Write a Python program that performs the following operations:

1. Accept an **amount in rupees (R)** from the user.
2. Use the following **currency denominations** stored in a **list**:
3. `denominations = [2000, 500, 200, 100, 50, 20, 10]`
4. Calculate the **least number of notes** required to make up the entered amount.
5. Display the **number of notes of each denomination** used and the **total number of notes (N)**.
6. Use **loops, floor division (`//`) and modulus (`%`)** for calculations.

Input

- Amount in rupees (integer), e.g., 2589

Output

- Number of notes of each denomination
- Total number of notes required

Constraints / Instructions

- Only denominations in the list `[2000, 500, 200, 100, 50, 20, 10]` should be used.
- Ignore coins or smaller denominations.
- Use **loops** for iterative calculation.

Result

Thus, a Python program to find the **minimum number of currency notes** for a given amount using a **list of denominations** was successfully designed and implemented.

Sample Input

```
Enter the amount in rupees: 2589
```

Sample Output

```
Denominations used:
2000 notes : 1
500 notes  : 1
200 notes  : 0
100 notes  : 0
50 notes   : 1
20 notes   : 1
10 notes   : 1

Total number of notes: 5
```