C++ Programming Task

Topic: Class, Object, Constructor & Member Functions

📰 Task Description

Write a C++ program using **class and objects** to manage **medicine information**.

This task focuses on:

- Classes and Objects
- Parameterized Constructors
- Member Functions

🧩 Program Requirements

1. Create a class named `Medicine` with the following **private data members**:

- `name` (string)
- `company` (string)
- `expiryYear` (int)
- `doseMg` (int)
- `price` (float)
- `requiresPrescription` (bool)

2. Constructor

- Create a **parameterized constructor** to initialize all data members.
- The constructor should display the message:

```
Medicine Data Initialized Successfully...
```

3. Member Functions

Implement the following member functions in the `Medicine` class:

- `display()`

    - Displays all medicine details in a tabular format.

- `applyDiscount(float percent)`

    - Reduces the price of the medicine by the given percentage.

- increaseDose(int extraMg)

    - Increases the medicine dose by the given milligrams.

- checkExpiry(int currentYear)

    - Displays whether the medicine is **Expired** or **Valid**.

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4. main() Function Instructions

In the main() function:

- Create **two objects** of the Medicine class.
- Display medicine details using display().
- Apply a discount to one medicine.
- Increase the dose of the other medicine.
- Check expiry status using the current year.
- Print proper headings before displaying data.

📊 Output Format (Example)

```
Name          Company      ExpYear   DoseMg   Price   Prescription
------------------------------------------------------------------
```