

Plant Watering Reminder System

The Plant Watering Reminder System is a system that helps forgetful users keep track of their plant watering schedules. It ensures that each plant receives the necessary care by notifying the user based on watering frequency. This system is especially useful for people with busy routines or who manage multiple plants.

Objectives:

- a. Allow the user to keep track of multiple plants with different watering needs
- b. Remind the user to water their plants on a regular basis
- c. Make a full status report for every plant they chose for further study
- d. Users can add as many plants as they want and can describe it by its name, plant type(Succulent/Flowering/Other) and water frequency(in days) efficiently

Methods we uses:

- 1. Array of Objects:**
 - a. Use for storing multiple plant entries.
- 2. Encapsulation:**
 - a. Implemented to protect plant data and only expose necessary method
- 3. Association:**
 - a. Aggregation
 - i. A user has a list of plants
 - b. Composition
 - i. A watering schedule belongs to a plant
- 4. Inheritance & Polymorphism:**
 - a. Base class Plant, derived classes like FloweringPlant, Succulent, etc
 - b. Polymorphic methods like getWateringFrequency() for all plants
- 5. Exception:**
 - a. Handle invalid inputs like empty plant names or wrong frequency values

Reporting/ Output