CIS351-Inheritence Lab

Submission Instructions

Submit Plant.java and PlantArrayListExample.java in Blackboard

Download Materials

- Download the Plant.java and PlantArrayListExample.java file before starting the lab.

Instructions

For this lab, you need to implement two java files - Flower.java and PlantArrayListExample.java.

Specificaton for *Flower.java*

1. First, you need to implement a derived Flower class, given a base Plant class.
2. Read the provided *Plant.java* class carefully to understand what is does.
3. Then write the code for *Flower.java* following the UML digram provided below.

Flower.java

- isAnnual: boolean
- colorOfFlowers: String

+ setPlantType(boolean userIsAnnual): void
+ getPlantType (): boolean
+ setColorOfFlowers(String userColorOfFlower): void
+ getColorOfFlowers(): String
+ printInfo(): void

Specificaton for *PlantArrayListExample.java*

2. Now open the PlantArrayListExample.java file, which you should have downloaded from Blackboard. This class will have the main method, which you will need to complete. Follow the specification provided in PlantArrayListExample.java file to complete this main method.

3. Complete the *main()* method by creating an ArrayList called myGarden. The ArrayList should be able to store objects that belong to the Plant class or the Flower class.

4. Create a method called *printArrayList()*, that uses the *printInfo()* methods defined in the respective classes and prints each element in myGarden.

5. The program should read plants or flowers from input (ending with -1), adding each Plant or Flower to the myGarden ArrayList, and output each element in myGarden using the printInfo() method.

Example Test Scenario:

If the input is:

plant Spirea 10
flower Hydrangea 30 false lilac
flower Rose 6 false white
plant Mint 4
-1

The output is:

Plant Information:
Plant name: Spirea
Cost: 10

Plant Information:
Plant name: Hydrengea
Cost: 30
Annual: false
Color of flowers: lilac

Plant Information:
Plant name: Rose
Cost: 6
Annual: false
Color of flowers: white

Plant Information:
Plant name: Mint
Cost: 4

Grading Criteria

Total points: 10 points

Flower.java - 5pt and PlantArrayListExample.java - 5pt

Don't forget
the submission process or
the grading criteria or

the cover sheet.

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