**Implementation Manual for Plantastic**

**What is the Game?**

The **Plantastic Clicker Game** is a fun JavaFX application designed to educate users about the eco-friendly benefits of plants. Players grow plants by clicking on buttons and progress through levels by increasing their Eco-Friendly Meter score.

**Main Parts of the Code**

**1. Main Class: Plantastic**

* + int ecoFriendlyPoints: Tracks the total points earned.
  + int ecoFriendlyLevel: Represents the current level of the Eco-Friendly Meter.
  + Label ecoFriendlyMeterLabel: Label for displaying Eco-Friendly Meter.
  + BorderPane mainLayout: Main layout for navigating between screens.
  + start(Stage primaryStage): Initializes the application and displays the StartScreen.
  + showCategorySelection(): Navigates to CategorySelectionScreen.
  + initializeGame(int categoryIndex): Navigates to the GameScreen for the chosen category.

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**2. StartScreen Class**

This is the entry screen for the game.

* + Displays a welcome message and a "Start" button.
  + Allows navigation to the CategorySelectionScreen.
  + display(): Creates and shows the start screen layout with a styled button for transitioning.

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**3. CategorySelectionScreen Class**

This screen lets players choose a category of plants.

* + Displays available plant categories (Trees, Flowers, Houseplants).
  + Navigates to the gameplay screen based on the selected category.
  + display(): Renders buttons for each plant category.
  + selectCategory(int categoryIndex): Handles category selection and navigates to GameScreen.

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**4. GameScreen Class**

The core gameplay occurs here.

* + Displays plants in the selected category.
  + Tracks plant growth, updates Eco-Friendly points, and manages progress.
  + display(int categoryIndex): Sets up the gameplay UI for a specific category.
  + updateEcoFriendlyMeter(): Updates the Eco-Friendly Meter based on points earned.
  + unlockNextPlant(int categoryIndex): Unlocks the next plant in the category.
  + checkCategoryCompletion(int categoryIndex): Checks if all plants in the category are fully grown.
  + displayCategoryCompletionMessage(int categoryIndex): Shows a completion message for the category.

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**User Manual for Plantastic**

**How the Game Works**

* **Step 1: Starting the Game**
* Displays the Start Screen and welcome message: “Welcome to Plantastic!”
* Press the Start Button to continue to Plant Selection Screen.

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* **Step 2: Selecting Plant Category**
* Displays the Plant Selection Screen and message: “Select a plant category to start.”
* Choose a plant category:
* **Trees**
* **Flowers**
* **A screenshot of a computer

  Description automatically generatedHouseplants**
* **Step 3: Growing Plants**
  + Click on the plant button displayed to grow it. Each click:
* Increases the **Eco-Friendly Meter**.
* Moves the plant closer to the next growth stage.
* Some plants are locked at first—you unlock them as you grow other plants.

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**Clicks needed for each stage:**

* **Seed → Sprout**: 5 clicks
* **Sprout → Blossom**: 10 clicks
* **Blossom → Fully Grown**: 15 clicks

**Special Features**

1. **Unlocking New Plants**
   * Once a plant becomes **Fully Grown**, the next plant in the list unlocks automatically.

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1. **Eco-Friendly Meter**
   * Tracks your progress with points.
   * Starts at **Level 1** and goes up every 10 points.

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1. **Category Completion**
   * When all plants in a category are **Fully Grown**, the screen will display a message: “Plant Category Completed.”

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**How to Run the Code**

1. Make sure you have JavaFX installed for your environment.
2. Copy and paste the code into a Java file named Plantastic.java.
3. Compile the code.
4. Run the program.
5. Click your way to an eco-friendly future!

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