

# Junior Programmer: Programmer Theory in Action

## Project brief

### Application concept

#### Overview

In this project, I will implement functionality for a **farming resource management experience**.

The basic functionality will be:

- User interaction, to enable them to influence the simulation
- Transitions between scenes, to enable further customization by the user
- Systems designed for extension, to increase the complexity of the simulation

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## Task checklist

Here's a high-level checklist of what I will do in this project:

### Scene management

- Create transitions between two scenes: main menu and game screen.
- Configure buttons so the user can control those transitions: different buttons to play the game start it or exit it.
- Buttons to control the whole game.

### Data persistence

- Difficulty setting
- Money

### Inheritance and polymorphism

- Create food class which holds different types of food with same functionality of giving seeds, giving hunger and different functionality of growth time, sell value, hunger value.

### Abstraction

- GiveHungerOnEating(), GiveMoneyOnSelling(), Grow()

### Encapsulation

- The hunger values, growth time, sell value need to be encapsulated

### Optimizing code

- Removal of redundant code in attempt to improve performance.