Build 2 Review - Advanced Programming Practices

Team 11

Architectural Design

- MVC Architecture to Create the Different Modules of the Project
- Main Modules include
    - Creatures MVC
    - Grid Cell MVC
    - Main Screen MVC
    - Map Chooser MVC
    - Map Creation MVC

Design Patterns

Mainly Focused on MV

- Singleton Pattern for Main Screen Singleton

- Observer Pattern for Shop Controller and Key Controller

- MVC Pattern for Entire Project

New Features in this Build

1. Wave based play

2. Towers can target critter using different strategies based on the radius

3. Towers can kill critters, Player can win the game if he kills all the waves

4. Special effects for towers based on the price of the tower

   a. Fire Power

   b. Ice Power etc.

Coding Standards

1. Indenting and Whitespace

2. Naming Conventions - Upper Camel and Lower Camel

    a. Local variables are written entirely in lower case and use upper case letters to separate words

    b. Classes start with uppercase letter and use upper case letters to separate word.

   c. Methods start with lowercase letter and use upper case letters to separate words.

3. Comments:

   a. Use Javadoc for all classes and all methods.

   b. All variable declaration most importantly class data members, should be   appended with a comment describing its role, unless it name make it obvious.

4. Code Layout:

   a.   The body of a function must be indented with respect to its header.

   b.   The body of a if, for, while, or switch statement must be indented with respect to its first line.

In a nutshell
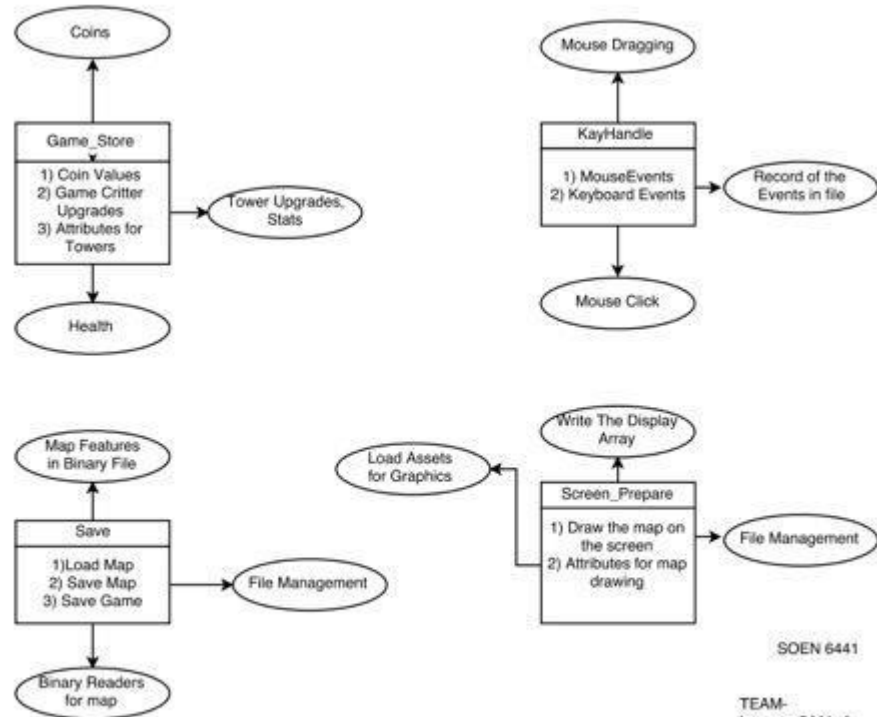
Learnings from Build 2

Practicing MVC really helped to segregate different modules in the project and deploy new custom actions.

We were struggling to deploy new features by changing half of the code every time. With MVC creating new features for tower and creatures got divided easily with the help of MVC.