CSCI 4237 Project Proposal

Gem Spinner

3rd October 2011

Sharvani Tota

Project Abstract

Gem Spinner is a Match-3 Style game. The game board consists of different colored gems embedded into pieces of different Shapes. The objective of the game is to match 3 or more gems horizontally or vertically. The player is allowed to swap the gems - only within a piece (gems swap only if there is a match created), drag and place the pieces in the empty area of the board and tap the gems twice to rotate a piece 180 degrees. The pieces disappear if all the gems in the piece involve in a match. Once there is a match, matched gems disappear and new gems replace them from the top. This cycle continues until the target is met or the number of pieces on the board left out creates no more matches.

Strategy

This game is an Android application developed using Android SDK in Eclipse IDE with Android plug-in installed. I will be using android.widget to develop the UI of the application. Will be using android.graphics.drawable and android.view.animation classes which are available in 2D library for drawing and simple animations. Will be using Tween animation classes for rotation and positioning of pieces. Will be using android.view class to implement the event handlers. I will be using the emulator provided by Android SDK to test the application.

Unknowns & Problems

I am only familiar with the functionality provided by different libraries but need to focus on the implementation details of the libraries which are to be used in the application. There are several challenges in this application. I am unaware of the logic behind swapping two gems. I also need to know the logic to make a piece disappear if all of the gems in that piece involve in a match.

Implementation Plan

Milestone Chart:

1. Build the layout of the GameBoard with pieces of different shapes.
2. Add Colored gems inside the shape.
3. Implementing the swapping functionality.
4. Be capable of moving the pieces to empty areas of the GameBoard (Drag and drop functionality).
5. Be able to rotate the piece by 180 degrees.
6. Making the gems disappear once a match is created and populating the gems from the rows above.

7. Making the pieces disappear when all the gems in the piece involve in a match.
8. Test the application in the emulator.

Classes in the Implementation:

1. Game Class
2. Piece Class
3. Gem Class
4. GemFactory Class
5. GemSwap Class