

# Requirements assignment 2, exercise 1

## Implementing special gems.

### **Must haves:**

- If a combination of 4 or more jewels is made, a special jewel shall appear in one of the cells where the combination was made. The following special jewels shall appear:
  - When a valid combination of four jewels in a line is made, a 'Flame gem' shall appear. This gem shall explode when matched, destroying itself as well as all directly surrounding jewels (including the diagonal ones).
  - When a valid combination of five jewels in a line is made, a 'Hypercube' shall appear. This gem can be matched to any adjacent jewel, regardless of the colour, in order to destroy all jewels of that colour on the board.
  - When a valid T or L shape combination is made, a 'Star gem' shall appear. This gem shall send explosive bolts of energy right, left, up and down, destroying all jewels on those lines.
- The game shall use the following score system for the special gems:
  - For making a combination with a 'Flame gem' the player earns 20 points for detonating the special stone, and 20 points per jewel destroyed.
  - For making a combination with a 'Hypercube' the player earns 50 points for detonating the special stone, and 50 points per jewel destroyed.
  - For making a combination with a 'Star gem' the player earns 50 points for detonating the special stone, and 50 points per jewel destroyed.
- The special gems shall be represented differently on the board than the normal gems.

### **Should haves:**

- The game shall animate the effects of the special gems.

### **Could haves:**

We do not have any could haves.

### **Won't haves:**

We do not have any won't haves.

### **Non-functional requirements:**

- The scrum methodology shall be applied during the process.
- The above stated requirements shall be implemented by September 25, 2015.
- The implementation of the requirements stated above shall have at least 75% of meaningful line test coverage (where meaningful means that the tests actually test the functionalities of the game and for example do not just execute the methods involved).