

Requirements

Strategy Design for Gems Bejeweled

by

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Functional Requirements

The requirements for the Strategy Design of Gems in Bejeweled are divided into functional and nonfunctional requirements. The functional requirements are divided into four categories using the MoSCoW model.

Must Haves

- At the start of the game, the board only has regular gems.
- Regular gems have one of 7 different colours.
- When there are three (or more) of the same gems in a horizontal or vertical chain, these gems are destroyed.
- When a regular gem is destroyed, it does not trigger extra gems outside its chain to be destroyed.
- When there are empty spaces with no gems above them, all of these spaces should be filled with new regular gems.
- The color of new regular gems is randomly chosen per new gem.

Should Haves

- When there are four of the same gems in a horizontal or vertical chain, a power gem is created.
- A power gem has the color of the gems in the chain that created it.
- When a power gem is destroyed, it also destroys all 8 gems surrounding it.

Could Haves

- When there are five of the same gems in a horizontal or vertical chain, a hypercube is created.
- A hypercube has no color.
- When a hypercube is swapped with an adjacent gem, the hypercube is destroyed.
- When a hypercube is swapped with an adjacent gem, all gems on the board with the same color as this gem will be destroyed.
- When a hypercube is swapped with a hypercube, all gems on the board are destroyed.

Would/Won't Haves

- When there are six of the same gems in a horizontal or vertical chain, a supernova gem is created.
- When there are three (or more) of the same gems in a horizontal or vertical chain intersecting another chain, a star gem is created.

Nonfunctional Requirements

The following requirements do not describe what the system should do, but they describe constraints that apply to the system or the development process of the system.

- The implementation of different types of gems should follow the Strategy design pattern.