

# **Multi Culti Soup - Extra Features Requirements**

By  
Multi Culti Soup

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## 1.1 Functional Requirements of the special balls

In this section the requirements regarding functionality of the balls that have special behavior are listed. The requirements are described using the MoSCoW model, grouped in four categories: functionalities that the system must have, should have, could have and will not have.

### Must have

- There shall be a special ball called "RainbowBall" that at the moment of collision will change its color to a random color.
- There shall be a special ball called "Explosive Ball" that at the moment of impact will destroy all the balls from all the adjacent cells
- There shall be a special ball called "Multiplier" that doubles the score the player gets in that round if they are removed
- These special balls shall appear randomly, with a probability of 5% each
- Each special ball has a unique image

### Should have

- The RainbowBall keeps changing color before it collides with the hexagon
- The Explosive Ball will make a sound every time it collides with the hexagon
- The Multiplier will create a special effect for the double points

### Could have

- The player gets 3 special balls at the start of the game
- The player can choose when to use the special ball
- Extra special balls can be gained, if a player score more than 50 points using one ball

### Would/Won't have

- There shall be an animation when a special ball appears

## 1.2 Functional Requirements of the random walls

In this section the requirements regarding functionality of an additional feature that randomly spawns small random wall. The requirements are described using the MoSCoW model, grouped in four categories: functionalities that the system must have, should have, could have and will not have.

### Must have

- There shall appear walls consisting of one cell that is randomly chosen from the set of empty places
- The walls will appear at random times, and will last one round
- The walls will not appear while the ball that was shot by the player is moving
- If the hexagon collides with one of the randomly generated walls, then the hexagon stops rotating but the game is not lost
- If the ball that was shot by the player collides with one of the randomly generated walls, then the ball will reflect
- The player shall be able to turn on or off the random walls at the beginning of the game

### Should have

- The ball that was shot by the player will reflect according to the law of physics when collided with the wall

### Could have

- There will appear different walls that will have different behavior when collided
- Player will not gain any points if a remover is used that round

### Would/Won't have

- There shall be animations before the walls appear

## 2. Non-functional Requirements

In this section design constraints are described. These constraints have no effect regarding what the system does, but on the development process of the system.

- The game shall be implemented in Java
- For the iterations after the delivery of the first fully working version, the Scrum methodology shall be applied
- For the implementation of the game the following software and frameworks will be used: git, Maven, GitHub, Travis CI, JUnit.
- The implementation of the game shall have at least 75% of the lines covered by automated tests