

# Functional Requirements

For the game Doodle Jump, four categories of requirements can be identified using the MoSCoW method.

## Must Haves

- When the game starts, the doodle and the first block with tiles is shown.
- When you press one of the active controls at the before the game has started, the game will start.
- The doodle has to be able to move to the left and the right.
- The doodle has gravity and falls down.
- When the doodle collides with a platform it “jumps” upwards.
- When the doodle hits the bottom of the screen, it dies and the game is over.
- If the doodle hits the left or right side of the screen, there is a wall and it can’t go through.
- The level is divided into blocks and every block contains locations of platforms.
- A block is as high as the screen is.
- A new block with platforms is generated and added to the buffer when a block is finished.
- The doodle has a maximal height of  $\frac{2}{3}$  of the screen.
- A background that moves when the doodle jumps up.

## Should Haves

- Every amount of space the doodle goes up, score is added to his current score.
- When the game is over, the current highscore should be compared with the last current score.
- When at the end of the game the current score is higher than the high score, the last current score becomes the high score.
- When the pause button is pressed, the game is paused.

- When the resume button is pressed, the game is resumed.
- A small percentage of the platforms have enemies on them.
- When the doodle hits an enemy it dies and the game is over.
- A small percentage of the platforms have a power up on them.
- Power ups will consist of jetpacks, springs, propellor hat, spring boots, helicopter, shield, trampoline and a spaceship.
- Some platforms should be disappearing after jumped on.
- Some of the platforms should move from horizontally left to right.

### **Could Haves**

- The game screen is scalable and the game changes with it.
- When the doodle hits the side, there is an animation and it goes to a new world.
- If the pause button is pressed 3 times, it will disappear and it's not possible to pause for the rest of that session.
- More game modes
- In the main menu it's possible to change the skin of the doodle.
- Music while playing.
- Sound effects when colliding.

### **Wont Haves**

- Ingame store to buy skins or powerups.
- Online highscore competition with friends.
- Online multiplayer to compete with each other at the same time in the same game.
- A doodle that constantly does front flip every jump and it dies when it does not land on it's feet.

## **Non-Functional Requirements**

For the game Doodle Jump the Non-Functional Requirements can be catagorized in three sections.

## **Product Requirements**

- Must be written in Java.
- Should have at least 60 fps.
- Tests will be made with Junit.
- Branch coverage should not be lower than 80
- The game will be available on mobile.

## **Organizational Requirements**

- A first working version of the game should be finished the 17th of September.
- There should be 5 collaborators on the project.
- We should use SCRUM in the process of creating the game.