Rujum – Game Development Document

<u>**Title Page**</u>

1. **Game Name** – Rujum

2. The name come from a traditional way to mark hiking trails. Rujum is a way to mark the trails while hiking in nature. The Rujum is mainly composed of a pile of balanced stones so that each stone is stably on top of another rock.

<u>**Game Overview**</u>

1. **Game Concept** – A game that is based on the original Rujum. At each level, the player needs to balance different things.

2. **Genre** – Mobile Game, Web game.

3. **Target Audience**

   A. Age: No Limit

   B. Gender – all of them

4. **Game Flow Summary**

   A. The player must finish his highest open level to move in the game. If he does it, the next level will open.

5. **Look and Feel**

   A. The game's view is with an animation design.

   B. The player plays the game when the phone in a vertical position

   C. There are two cameras, one in front of the blocking (like in the picture) and one above them to see the exact place.

6. **Platforms –** IOS, Android, web.

Gameplay and Mechanics

Levels Option – Gameplay & Mechanics

1. **Game View**
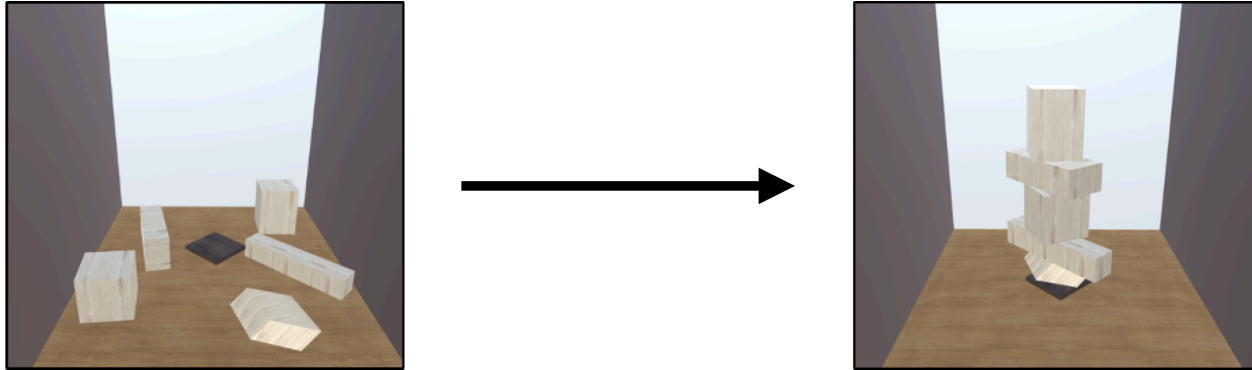
2. **Gameplay**

A. **Game Progression**

1) The progression in the game is through levels. Each level has a different theme, goods, and difficulty.

2) Every twenty levels (20 levels = phase), the theme will change to a new environment with different difficulties.

B. **Mission/challenge Structure**

1) On each level, the player needs to balance five objects that are related to the level's theme.

2) Each object looks and weighs differently – slippery, heavy, high, and more.

3) The faster the player completes the stage, the higher his score will be.

C. **Puzzle Structure** – Each level has different puzzles/blocks/parts. The puzzles are related to the level's phase.

D. **Objectives** – the goal of the game is to balance the whole parts in the level as fast as possible.

E. **Play Flow** – when the player completes the level, he automatically opens the next level (and sometimes the next phase). The player can choose between three options:

1) Play the next level.

2) Improve the last level.

3) Go back to the main map where the player can choose if he wants to buy stuff/ improve previous levels/ go to setting.

3. **Mechanics**

   A. **Physics – How does the physical universe work?**

   1) The objects are always in a gravitational mode.

   2) But when the player chooses one object, the object is no longer in a gravitational mode so that it can be moved.

   3) When the player releases the object, it returns to be in gravitational mode. If the object is in the air, he will fall to the ground. And it can collide with another object.

   B. **Movement**

   1) Web:

      A) The movement of an object is with the arrows (or 'A' & 'D' for left and right, 'W' & 'S' for forward and backward).

      B) Up and Down movement is with the keys 'Q' & 'E'.

      C) Vertical rotation – 'H' & 'K'.

      D) Horizontal rotation – 'U' & 'J'.

      E) Clock rotation – 'N' & 'M'.

      F) Release – press on the background with the mouse or press enter.

   2) Mobile:

      A) Movement with arrows and two buttons for up and down.

      B) Clock rotation – with two fingers.

      C) Horizontal and Vertical rotation with dragging one finger to one of the sides.

   C. **Objects' picking**

   1) Web – the selection of objects is by clicking them with the mouse. For releasing them he needs to press the 'Space' button or click on the background

   2) Mobile – the selection of objects is by touching them. For releasing them, the player needs to touch the 'Release Button'.

   3)

<u>Pile Option – Gameplay & Mechanics</u>

1. **Game View**
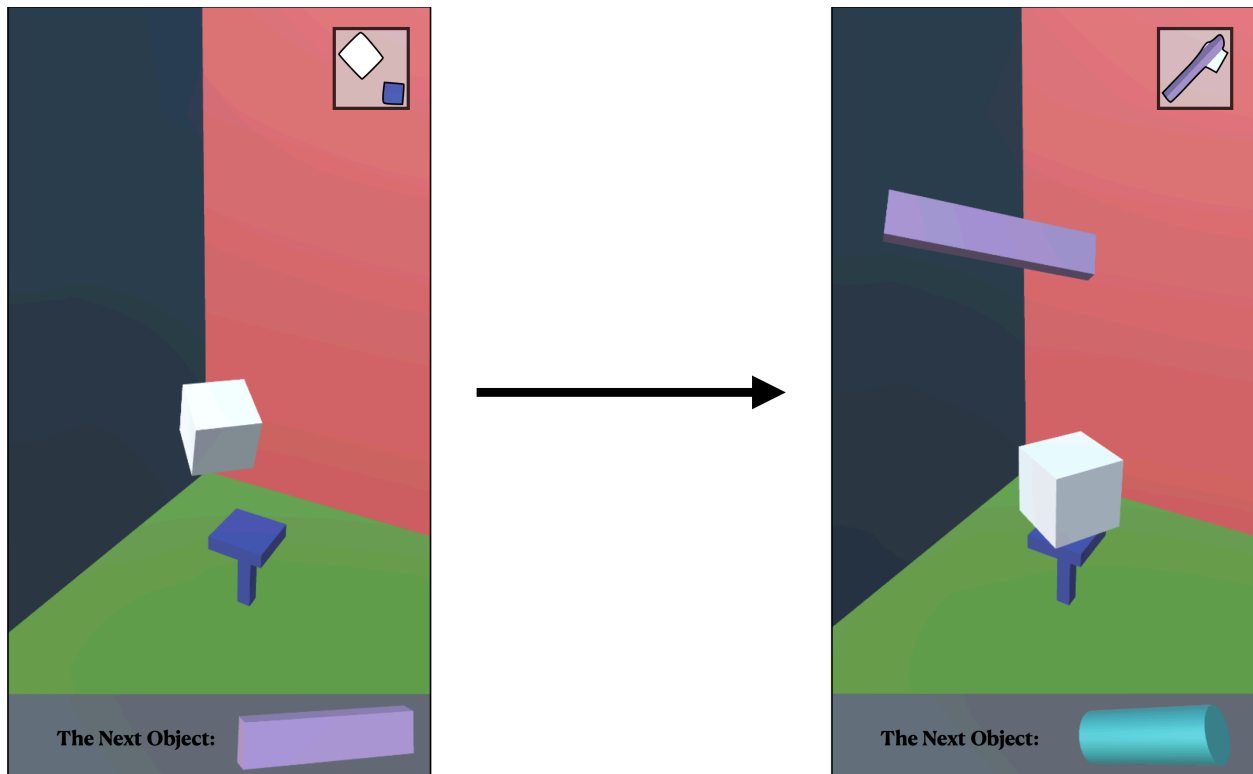
2. **Gameplay**

   A. **Game Progression**

      1) The progression in the game is by putting objects on a pile.

      2) When the player puts stably the object, the next object will generate in the world.

      3) Every thirty levels, the theme will change to a new environment with different difficulties.

   B. **Mission/challenge Structure**

      1) Each object will fall (by given time & speed), and the player must rotate the object and locate him in the given time. If the player succeeds, he continues to the next object. If he fails, he will start from the beginning.

      2) Each object looks and weighs differently – slippery, heavy, high, and more.

   C. **Puzzle Structure** – Every 30 objects, the game will generate different subjects of parts.

   D. **Objectives** – the goal of the game is to balance as many as possible parts.

E. **Play Flow** – After the player puts stable the object, the game will generate another object.

3. **Mechanics**

   A. **Physics – How does the physical universe work?**

      1) The objects are in a gravitational mode. When the player will not see the object, the 'Rigidbody' will delete.

   B. **Movement**

      1) Web:

         A) The movement of an object is with the arrows (or 'A' & 'D' for left and right, 'W' & 'S' for forward and backward).

         B) Vertical rotation – 'H' & 'K'.

         C) Horizontal rotation – 'U' & 'J'.

         D) Clock rotation – 'N' & 'M'.

         E) Release – press on the background with the mouse or press enter.

      2) Mobile:

         A) Movement with arrows for Horizontal moving.

         B) Clock rotation – with two fingers.

         C) Horizontal and Vertical rotation with dragging one finger to one of the sides.

Strategic and View

1. **Economy**

   A. There is a shop in the game where the player can buy capabilities that improve his movement & rotation. He can also buy capabilities that improve the camera.

   B. The player can buy in the shop with ''R Coins" that he can get if he will see videos/ or if he places objects exactly at the center and after that, he finishes the level.
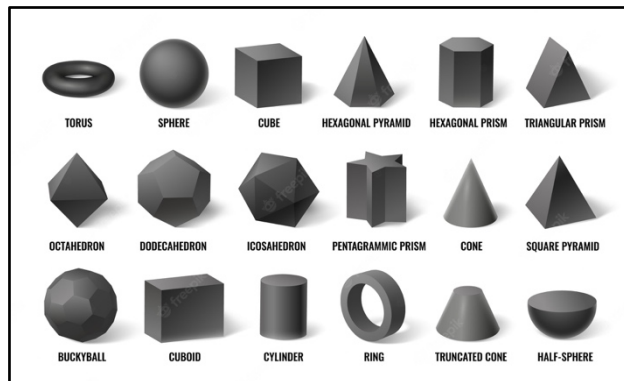
2. **Screen Flow –**

The story, Setting, and Character

1. **Game World**

   A. Carpentry –

      1) An environment that looks like animating carpeting.

      2) In this environment, the objects will be pieces of wood.

      3) In the first phase (levels 1-20) the player will learn how to play with a regular piece of wood.

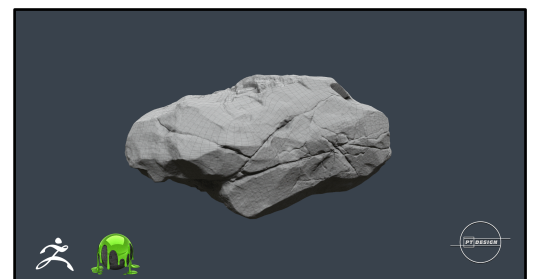   4) In the other phase, the wood will be in different shapes, making the level harder.

   B. Hiking Trail

      1) An environment that looks like a real hiking trail in the world.

      2) At each level, the environment will change to a different place.

      3) The object in this environment is different stones.

   C. Office

   D. Storge

   E. Nature

Technical & Game Art

1. **Game Engine**

   A. The game will develop in the Unity game engine.

   B. The programming language is C#.

   C. All the code will save on GitHub.

   D. The game will develop for different platforms.

2. **Game Art**

   A.   The game will be an animation game.

   B. **3D objects:**

      1) Creating 3D objects will be done by Adobe Illustrator. There they will get their form and shape.

      2) After the objects will be ready, they will convert to Unity.