

Design document for individual homework

Title: NotFallGuys9000

Genre: Platformer

Description:

3D game with a third-person perspective. The player jumps on different platforms from start to finish. With every completed level number of platforms and their difficulty increases.

Gameplay:

- **Goal:**

The main goal of the player to reach the finish line. But the game is endless, so the real goal is to pass as many levels as possible.

- **Game mechanics:**

- The player can jump on platforms
- Objects on platforms can kill player
- Platforms can try to make the player fall out and lose

- **Additional features:**

Game is endless with procedure level generation.

References: Fall Guys

End game:

Whenever player want to end the game, because it has infinity count of levels.

Technologies: The game is developed on the Unreal Engine 4.27.1 for Windows.

Feature matrix:

	Player	Red objects	Finish	Conveyer	White-blue platforms/cubes
Player		Red objects instantly kill the player, if the player touches them	Player can reach the end and teleport to the next level	Tries to throw off the platform(itself)	Player can stay on them without any danger
Red objects					
Finish					
Conveyer					
White-blue platform					

Generation of levels:

There are some rules of level generation

- Firstly, number of platforms equals to number of the current level.
- Secondly, with each level up to 6th difficulty of platforms is increasing. At level 1 only flat floors, 2 – walls, 3-4 – platforms with red zones, 5 - moving platforms, 6 – conveyer.
- Thirdly, gap between platforms is increasing by 100 from 200 to maximum 800 with each level.
- And rotation of conveyer is random, so, sometimes it helps to complete the level, sometimes opposite.

Description of moving obstacles:

- Moving platform moves from side to side (700 pixels) for 120 seconds
- Conveyer moves player with speed 250 pixels per second

Taken mechanics:

There are no original mechanics that taken from some specific game. All mechanics are common for all platformers.

Very useful guides on YouTube:

<https://www.youtube.com/watch?v=6lR353CiiAM>
<https://www.youtube.com/watch?v=yq7Obrk-tbA>
<https://www.youtube.com/watch?v=D1pQrctHqEM>
<https://www.youtube.com/watch?v=XjPdyoy7ySo>
<https://www.youtube.com/watch?v=LseY59ffKK8>
<https://www.youtube.com/watch?v=l-RseXi4LyM>

https://www.youtube.com/watch?v=N_q8jTs8gU0
<https://www.youtube.com/watch?v=UCd8pjbYT4>
<https://www.youtube.com/watch?v=VmRggTwhiew>