Game Design Document

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1. Basic Information

NinjaCoin is a 2D platformer with simple coin-collecting mechanics, a life system, and three scenes (Winter → Jungle → Clouds). The player controls a character (a ninja), jumps across platforms, collects coins, and avoids obstacles. After reaching the end point of a level, the score is displayed and the game proceeds to the next scene. The game is available exclusively on the PC platform and supports the following screen resolutions:

320×200	640×480	1280×720	1360×768	1680×1050
320×240	800×600	1280×768	1366×768	
400×300	1024×768	1280×800	1400×1050	
512×384	1152×864	1280×960	1440×900	
640×400	1280×600	1280×1024	1600×900	

The game is intended for children aged 4 to 10 years.

2. Game objective

Collect as many coins as possible and reach the end of the level while keeping as many lives as possible.

3. Core gameplay mechanics

• Movement: left/right – LeftArrow, RightArrow
• Jump: Space / UpArrow / left mouse button
• Collecting coins: by touching the Coin object
• Lives: the player starts with 5 lives
• Collisions with the objects Mushroom, Spikes, Grave, Cross, Crystal result in losing one life. Plus gives one extra life

• Level end: reaching the finish point ends the scene, displays the score, and moves the player to the next scene
• When all lives are lost, the game ends and can be restarted from the beginning
• Interaction with obstacles triggers an animation and plays a sound
• The camera follows the player
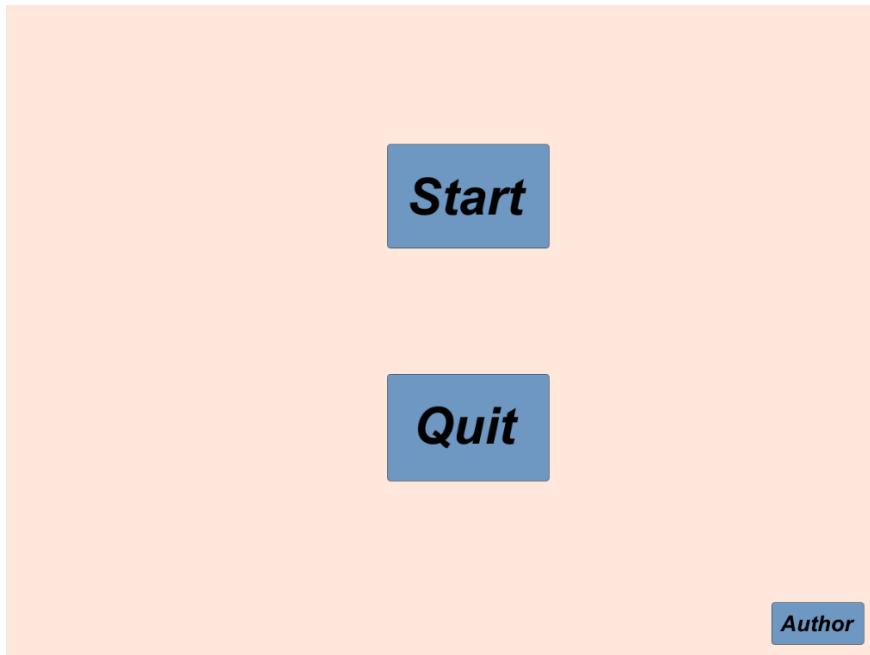
4. Controls
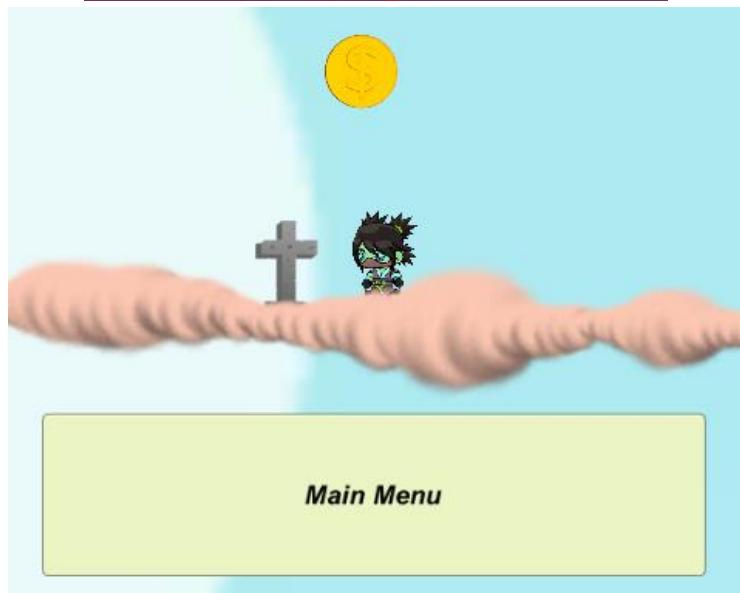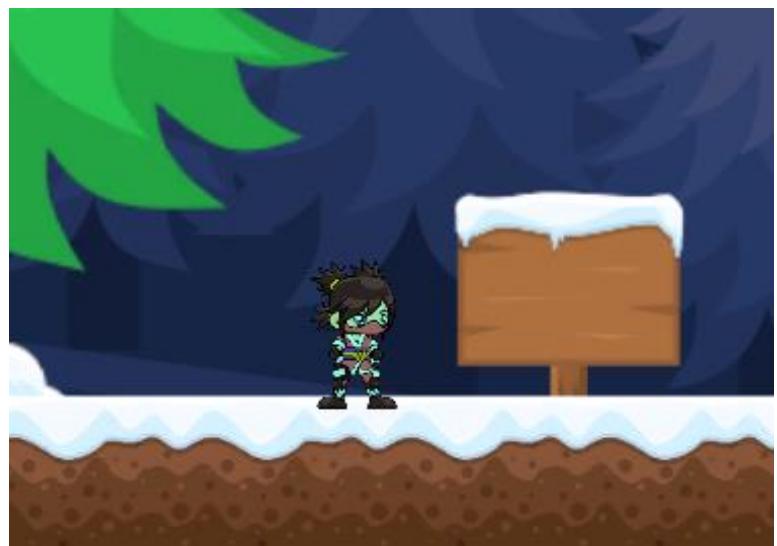
Controls can be configured at the start of the game.

• Movement: A/D or arrow keys
• Jump: Space / UpArrow / left mouse button
• Escape: toggles the pause menu (ESCButton)

5. UI / HUD

• Number of collected coins
• Current life count
• Final score message
• Buttons: Next, The End, New Game, Main Menu, Quit, Author

Main Menu

Game Over

New Game

Main Menu

THE END

Congratulations!

Your score is: 1/275 points.

Main Menu

6. Levels and content

- Winter scene — 135 coins
- Jungle scene — 725 coins
- Clouds scene — 275 coins
- Obstacles: mushrooms, spikes, graves, crosses, crystals

7. Audio and effects

- Sounds: Coin, Jump, Plus, Collision, Finish
- Effects: blood animation

8. Balance and metrics

- Starting lives: 5
- Collision penalty: −1 life
- Plus: +1 life