

DOCUMENTATION

Game operation

The Capeman is a 2D platformer game along the lines of Super Mario Bros in which the main character earns points by traveling through different scenes. These scenes are implemented in such a way that the game gets harder every time the player beats a level. Additionally, the actions of the main character are triggered by the next inputs:

- Left Arrow Key: causes the MC to move to the left with its respective animation and sound.
- Right Arrow Key: causes the MC to move to the right with its respective animation and sound.
- Space Key: causes the MC to jump with its appropriate animation and sound.

For testing purposes:

- ESC key: used to load the next scene.
- F1: used to move the main character to the first part of the level/scene.
- F2: used to move the main character to the last part of the level/scene.

Features

Features that were implemented by me:

- Player controller functionality
- Animations (main character, enemies, coins, etc.)
- Obstacles
- Enemies
- Collectables (static & dynamic)
- Use of physics
- Accurate collision detections
- Scenes (Welcome, Levels, High Score)

- Different difficulties between scenes (Novice, Intermediate, Expert)
- Parallax backgrounds
- Appropriate sounds for animations
- Mechanism to score points and keep score
- Mechanism to keep lives
- Keep high scores between games
- Extra lives

Known Bugs

As far as I know, the game has no bugs.

Third party assets

Most of the game assets were created by Danil Chernyaev, and the packet can be found as “2D Platformer Tileset” in the Unity Asset Store. A few assets such as the water, lava and the heart were gotten from the website for “Learning 2D game Dev with Unity”. Besides that, the sounds were obtained from different websites. The jump and die sounds for their respective animations were created by Rocklynn Productions in the Unity Asset Store as well. The move sound was acquired from Pixabay, the collectable and extra live sounds from Mixkit, and the background sounds from Chosic.

Conclusion

To summarize, I’ve learned how to create a 2D platformer game with different types of features using Unity. Some of the most important features are player controller, animation, parallax background, physics, and high score mechanism. Additionally, the best and challenging part of this process was to learn how to implement all of this features together without getting any bugs.