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CSE 165 Project Description

Introduction:

My project presents the classic game Space Invaders. Originally developed in 1978 by Tomohiro Nishikado and released by the company Taito. The game was played in arcades, Nintendo, Sega, and Playstation consoles. Today, this game is available for play on smartphones.

Motivation:

The motivation here was to create a game simple enough to create and simple enough to play. C++ object oriented programming and OpenGL was used to create the game. OpenGL was the recommended API(application programming interface) for this project and thus was used to create this game. There are also a lot of tutorials online about OpenGL that proved crucial to completing this game project. OpenGL (Open Graphics Library[3]) is a cross-language, cross-platform application programming interface (API) for rendering 2D and 3D vector graphics. The API is typically used to interact with a graphics processing unit (GPU), to achieve hardware-accelerated rendering.

Methodology and Implementation:

The game begins with the player as a fighter plane and has 3 lives. There are 55 aliens.The player moves only left and right, using the left and right arrows on the keyboard. The keyboard space bar is used to fire at the aliens. The game is over after the player loses all their lives or ESC is pressed on the keyboard.The aliens move from left to right and fire at the player. The aliens also move gradually downward and fire faster as aliens are being killed.

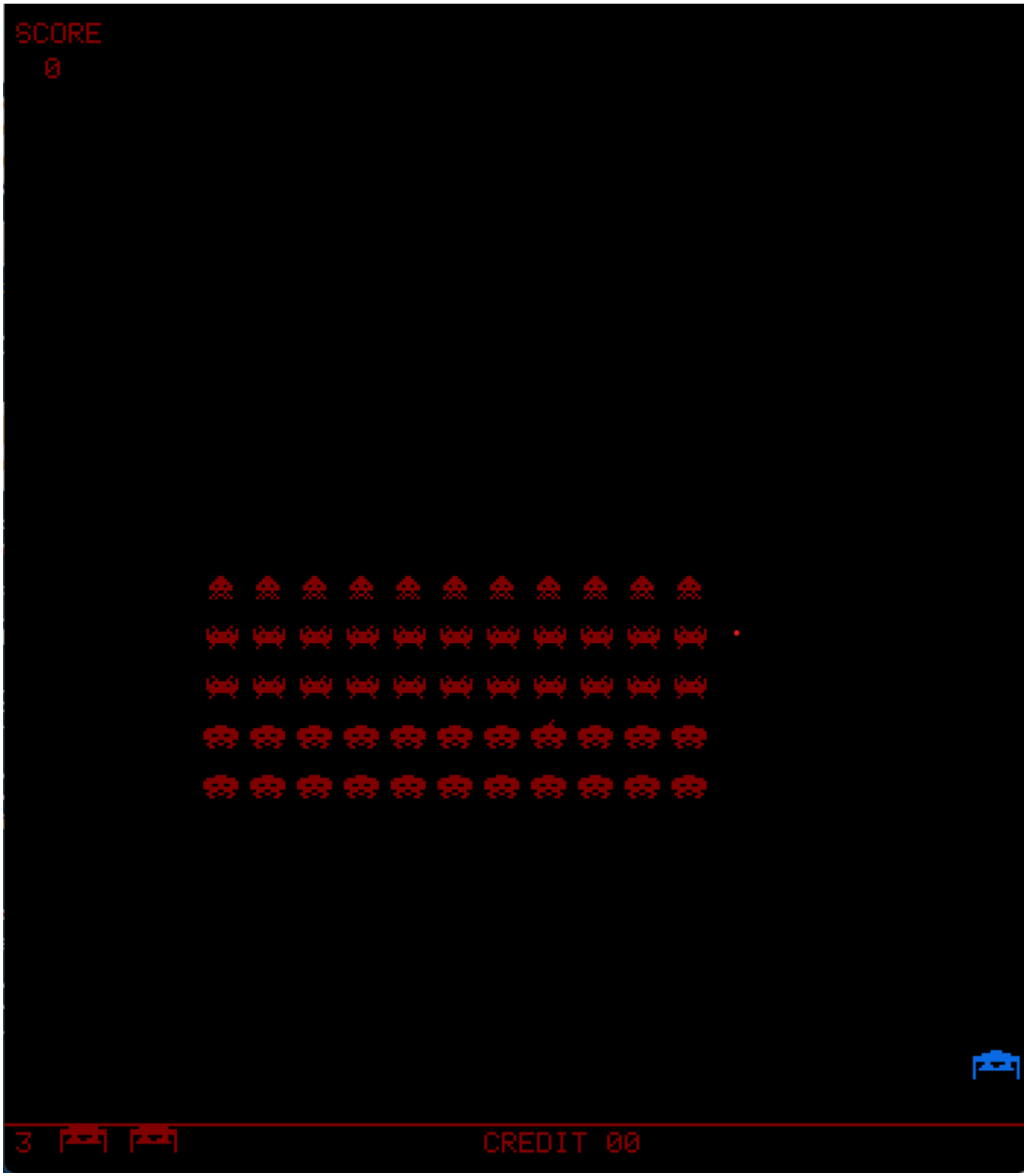
Outcome:

The outcome of this game is playing to infinity or game over. If all the aliens are destroyed, the game keeps the score and fills the screen again with a new set of aliens and the game continues to infinity or when all player lives are gone. This game has just one level but new levels could be added to increase the variety of gameplay.

Conclusion

This project was a fun way to learn object oriented programming. My game fulfills the criteria of having a player-controlled object and an object that moves autonomously. It successfully utilizes OpenGL to create the game and uses the gflw and glew header files to handle inputs.

Screenshots


SCORE
0
3
CREDIT 00


SCORE
210
GAME OVER