

COP701:Assignment-2

Zaxxon-3D

An Arcade Game Redesigned

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Introduction

Zaxxon is one of the most popular arcade games produced in 1980's. We have created a revamped 3D version of the game. While we have done a number of modifications to the original Zaxxon game, we have tried to keep the main theme of the game as it is - You have a fighter plane in control, which passes through different levels of varying difficulty, by destroying obstacles and enemies as it comes across them.

Zaxxon 3D has five levels of varying difficulty, along with the two layouts - one on the earth and the other in space. You can directly jump to any specific level, if you want to, although we would recommend you to start from Level One through Level Five.

The different types of obstacles and enemies we have used throughout the game are - Enemy Tanks, Fighter Jets, Fly Bombers, Rocket Launchers, Missiles, Walls and Asteroids. We have added appropriate sounds for different collision events.

The details for each level are as follows:-

First Level

The First Level starts with a simple, yet intuitive landscape, where the player has to follow along a pathway, combating the enemy tanks and avoiding the obstacles in between. The player also has to be keen on the fuel, which can be refilled by hitting a bullet to barrels coming across. The game is over if the fuel is exhausted.

Hitting and destroying an enemy fetches you 50 points and the scoreboard will be updated. We have provided a Height Indicator to get to know the height of the player at any point in the game. We also have a Fuel Indicator to display the available fuel. There are five lives for the player to complete the level.

Whenever the player gets hit either by an enemy or by an obstacle, the number of lives will be decreased by one. It's a game-over if the number of lives reach zero.

We also display the player's High Score so far on top of the screen before starting and after completing a level. You finish the level, if you get past all the enemies and obstacles without - losing all of the lives and the fuel getting exhausted.

Second Level

The player transitions to the Second Level after completing the First. The Score is carry-forwarded from the previous level, while the fuel and the lives are refilled. Level Two has a different layout - the player travels through deep space and encounters asteroids and the enemy planes during the journey. The player has to complete its journey through the space destroying the enemies it comes across. But beware, you have to avoid colliding with asteroids otherwise, you lose a life. Tearing apart the enemy planes fetches you 50 points, while destroying an asteroid gives you 5 points.

Third Level

In the Third Level, we again come back to the layout used in the First Level, but now with more enemies and so greater level of difficulty. The player comes across walls in between and an additional trio of enemy fighter planes continuously releasing the bullets. All the enemies and obstacles present in the First Level are kept intact. The levels get more and more difficult as the player progresses towards the next level.

Fourth Level

For the fourth level, we switch back to the second level space layout. We make the level difficult and interesting at the same time by adding a new pair of enemies - Fly Bombers along the way. They swirl up and down periodically while releasing lasers at the player. Now, the player has to pay attention to the asteroids, the enemy fighter planes as well as the fly bombers. So, it would be a challenging and interesting level to play.

Level Five

We add even more enemies in the Fifth Level, to make it ever more challenging, difficult and interesting to play. We add Missile Launchers in the upwards direction at random positions along with couple of missiles following the player. The player has to constantly look up everywhere for different enemies and obstacles

to destroy and avoid, while not losing too much lives. The player on completing the fifth and the final level, wins the game!