Diploma Engineering Project

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Summary

Project name:	Apocalypse: The end of evil
Starting date:	June-2019
Ending date:	July-2020
Purpose:	Diploma engineering project
Software/Tools used:	Unity engine, Visual studio, Unity assets
Programming language:	C#
Supported platform:	Windows
Game files/setup:	https://bit.ly/3gyW595

Apocalypse: The end of evil is a zombie first-person shooter (FPS) is a video game genre centered on gun and other weapon-based combat in a first-person perspective that is, the player experiences the action through the eyes of the protagonist. The genre shares common traits with other shooter games, which in turn makes it fall under the heading action game. Since the genre's inception, advanced 3D graphics have challenged hardware development, and cross-platform gaming has been integral. The protagonist's arms are at the bottom of the screen, carrying whatever weapon is equipped. The gamer is expected to propel his avatar through the game by moving it forward, backward, sideways, and so on using the keyboard. Forward movements of the controller result in the avatar moving forward through the scenery, usually with a slight left-right rocking motion to properly simulate the human gait. In order to increase the level of realism, I included the dead zombie effects with blood and weapon fire effects.

As of today, FPS peripherals do not allow the user to become totally engulfed in their experience. This problem is solved by creating a more realistic experience for them. We are creating gaming peripherals that will let the user reload, fire, kill, and use a secondary weapon to kill the zombies and enjoy ended up playing our game. An approach and methodology for project development refer to the way in which the development of a project is carried out. There are various project development approach examples, each posing their own benefits to overall successful project completion. Here we've used a spiral model for game development. The spiral model is a risk-driven software development process model. Based on the unique risk patterns of a given project, the spiral model guides a team to adopt elements of one or more process models, such as incremental, waterfall, or evolutionary prototyping. This one is a flexible model.

The assets of this game are taken from the unity asset store which was free-to-use assets and as I was learning the game development and was making the game for the first time, I put those assets in unity engine to make the game having four stages/levels to play. The user must have to complete the first level to get an increment to the upper level. To set put on the restrictions on other levels begin played before the lower level I put buttons and some algorithms in the script to restrict users for directly playing any level rather than playing in sequence. Of course, after successfully completing all the levels, the game will redirect to the completion menu where the user has 2 options rather to quit to the desktop or to return to the level selection menu where the player can now select any of their favorite level to play.

We have some scope in the game like:

- There is no option for multiplayer.

- There are some limited weapons for the user to use.

- There is no option for age restriction.

- No option available for playing online with friends.

Now, talking about system modules then here are two modules in our game Apocalypse: The end of evil:

- User module.

- Level module.

Talking about the future work I have decided to do like the improvisation of game-play more reliable. Also, focusing on graphics quality and fixing the bugs, errors, and limitations of the game. I will try to implement the feature of multiplayer support.

As, Unity-3D is a commercially available multiplatform game engine used for the production of 2D and 3D video games as well as non-game interactive simulations and visualizations. Unity is one of the most popular game engines available due to its combination of power, flexibility, and ease of use and this is the reason I choose Unity for my project. And also you can extend the editor with whatever tools you need to match your team's workflow. Create and add customized extensions or find what you need on our asset store, which features thousands of resources, tools and extensions to speed up your projects.

As the script must be attached to a GameObject in the scene in order to be called by unity. Scripts are written in a special language that unity can understand. It's through C# language that we can talk to the engine and give it our instructions. All the languages that unity operates with are object-oriented scripting languages.

In conclusion, The Apocalypse: The end of evil is a first-person shooting game. In this game, the player has options to select a level and has to kill the zombies with some limited weaponry. After killing all the zombies and wild animals user will then reach to the upper level and have to complete particular missions.