STAMFORD UNIVERSITY BANGLADESH

COMPUTER GRAPHICS PROJECT REPORT

PROJECT TOPIC: Spaceship Shooter Game

COURSE TITLE: Computer Graphics Sessional

COURSE CODE: CSI 414

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1. AIM

In the fast growing field of software engineering and development and even more rapidly growing sector of game development the future is hard to predict. In general software project is a project focusing on the creation of software. Consequently, Success can be measured by taking a look at the resulting software. In a game project, the product is a game. But and here comes the point: A game is much more than just its software. It has to provide content to become enjoyable. Just like a web server: without content the server is useless, and the quality cannot be measured. This has an important effect on the game project as a whole. The software part of the project is not the only one, and it must be considered in connection to all other parts: The environment of the game, the story, characters, game plays, the artwork, and so on.

2. DESCRIPTION

Since the 1970s, people started to take interest in using their computers as an entertainment environment, thus, the multi billion game industry was starting to take shape. Having presented earlier the sum of money this industry produces, I decided to have a go and create a game of my own. As a kid, I was always fascinated by the idea of becoming a game developer, but, as years went by, I have realized this is not exactly what programming and computer science, as a practice, are about and I dropped the idea. However, the third year project offered me the possibility to try and achieve one of my childhood's dreams and I couldn't resist the temptation.

The game is developed for full-time entertainment and enthusiasms. It teaches the Gamer to be alert at every situation he/she faces, because if the Gamer is not fully alert and notice the saucer fire he/she must be hit by the saucer-bombs. Though the proposed game is an action game, it doesn't involve direct violence. No zombie killing, animal killing, or human killing is performed in the game. So it can also be viewed as a nonviolence game. Kids can also play this game, because the design of the game is very simple, controlling the game is very easy – pressing some neighboring keys of the keyboard.

This Report describes all the requirements for the project. The purpose of this research is to provide a virtual image for the combination of both structured and unstructured information of my project "Space Shooter". This is a single-player strategy game on the Windows platform. The player will progress through levels which require precise manipulation of the environment, though the game Encourages creativity and daring via branching pathways. The episodic structure of the game facilitates the pace of the story. I demonstrate the action flow between inputs, script, display (output).We are working mainly with story, levels, object, animation, graphics, scripts, game engine facilities

3. METHODOLOGY

A simple methodology have been used for this game. Game will be controlled by using keyboard and mouse will be used for shooting. A character like alien has been built using various shapes to represent player. A spaceship has been built also to symbolized the games main objective. Player need to kill enemy like various shaped stones by using shooting of spaceship and protect the ship from the stones. Touching of stones will reduce life. In graphics , various shape are used to build figure of alien character, spaceship, stones etc. 2d animation are used in this game.

This game has some **special features**:

a. Attractive background
b. Spaceship
c. Different stone (enemy) types
d. Alien Character
e. 2D graphics
f. Live score

Development Tools and Programming Languages

a. Opengl
b. C++

Expected Requirements

These requirements are implicit to the system and may be so fundamental that the actor/gamer/

relevant people does not explicitly state them. Their absence will be a cause for dissatisfaction.

a. Develop system within limited cost.
b. Maximum high definition.
c. Minimum hardware requirements which is relevant for this game.
d. Design whole system with efficient manner.

Graphics engine will be responsible for rendering text, 2D images, and 3D models on screen.

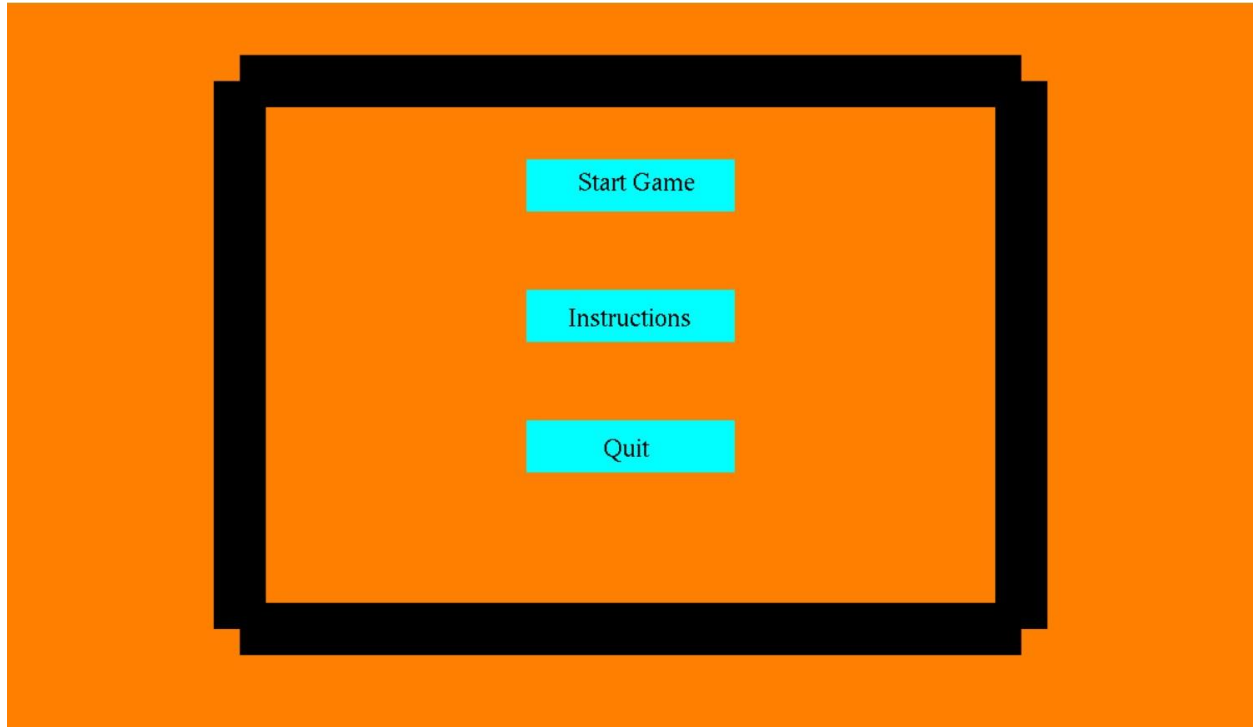a. Drawing models
b. Drawing text
c. Texturing models
d. Animation

Input engine will be responsible for transferring mouse and keyboard input upon request to the

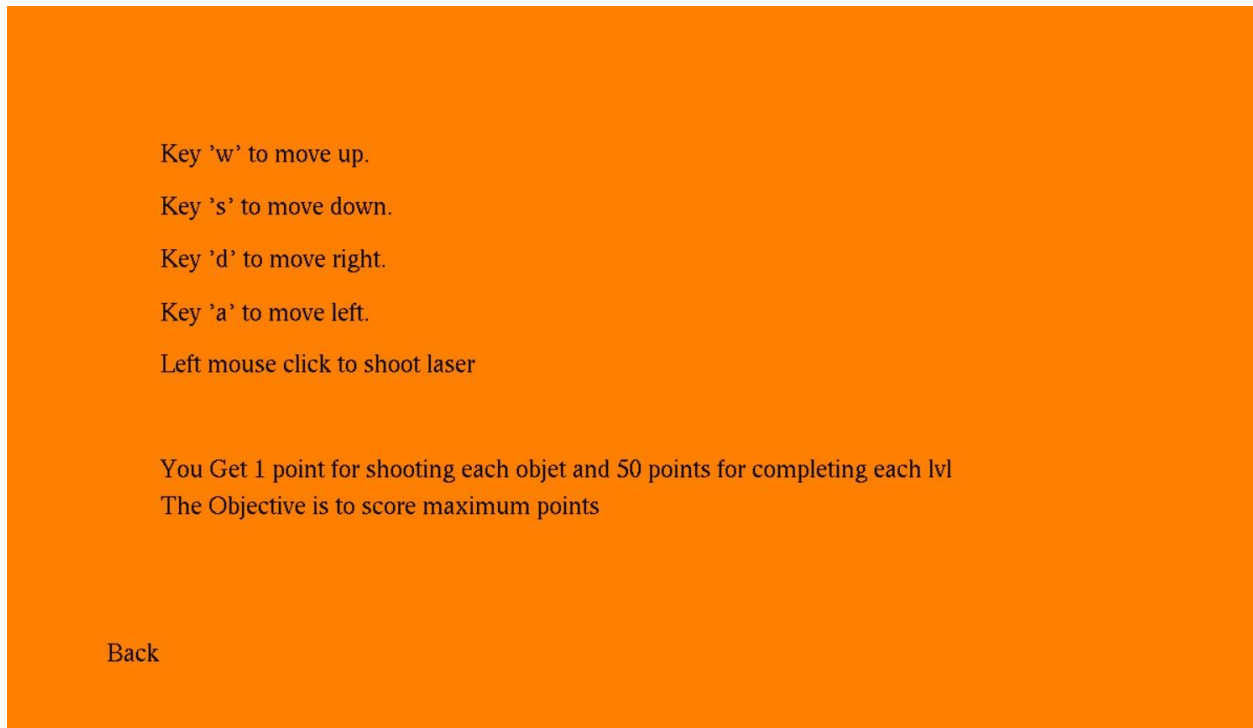game engine.

a. Retrieving Input

Menu Engine will handle all menus in game.

4. RESULTS

Menu Screen:

Instruction:

Game Screen:

Game Over:

5. FUTURE WORKS

1. This game has no sound/audio system. An audio system can be added like background music.
2. Game engine can be connected with internet to make a virtual environment.
3. Creating a 3d model is very difficult because it is needed to work with each and every point of the
4. model. So, a 3d model can be created for this game.
5. There are many lack of conditions and logics in codes. So, those have to be solved. Problems like score , life etc.
6. A good animated background should have added.
7. The Exists game engines demands vast knowledge about its properties, sections and subsections.

6. CONCLUSION

Now we know much more about game engines. How it works? The properties, objects and others. We know how a model is constructed and how it is animated. The main thing is that as a software engineer, skill and expertise to create a SRS (Software requirements specification) document and an overall software product report of our is now better than before. Developing communication skills and growing creative thinking and imagination capability are also achieved by this project.

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