**A Level computer Science**

Component 3

Space Game



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Table of Contents

[1.1 Introduction 4](#_Toc107568574)

[1.2 Problem Identification 5](#_Toc107568575)

[1.3 Why the problem is suited to a computational solution 6](#_Toc107568576)

[1.4 Stakeholders analysis 7](#_Toc107568577)

[1.4.1 Stakeholders 7](#_Toc107568578)

[1.4.2 Interviews with Stakeholders 8](#_Toc107568579)

[1.4.3 Conclusions from Interview 9](#_Toc107568580)

[1.5 Research 10](#_Toc107568581)

[1.6 Features of the proposed solution 11](#_Toc107568582)

[1.7 Limitations of the solution 11](#_Toc107568583)

[1.8 Stakeholder Consultation 12](#_Toc107568584)

[1.9 Hardware and software requirements 13](#_Toc107568585)

[1.10 The requirements of the solution 13](#_Toc107568586)

[1.11 Success Criteria 14](#_Toc107568587)

Chapter One: Analysis of the problem

## 1.1 Introduction

In this project, I aim of entertaining children and teenagers by providing them with a 2D videogame for recreational use. The game college students and even. Its theme is science fiction and space. The game will have both options for a single player fighting an AI and multiplayer for one player versus another locally, allowing users to play the game how they prefer. The game has the theme of space and science fiction and will involve each player controlling a spaceship on each half of the screen and shooting enemies approaching them. There will be a number of levels in single player, increasing in difficulty as the player progresses. The multiplayer versus mode will be more customisable, allowing the user to change the amount of enemies, damage dealt, and health to some extent. My stakeholders for this project will include a college student at Stoke Sixthform College, a child and a young adult.

## 1.2 Problem Identification

Most retro games are fully single player experiences, with no way to interact directly with another human player in the game aside from competing for a spot on a scoreboard after game completion. My project aims to go against this convention by allowing players to directly compete against each over in real time with their scores being tracked and displayed clearly on screen.  
In addition, most 2D videogames that feature a 1vs1 format are usually fighting games, a genre that most people are turned away from because it can be too competitive, forcing players to learn specific ‘combo’ moves reducing the ability for people to play casually and for fun. This could either put people of retro videogames entirely due to frustration or make younger users shy away from multiplayer gameplay entirely. There is also a limited number of retro shooter games with such a format and even fewer with a sci-fi theme.

Furthermore, a lot of 2D shooters feature either just a single large level, a limited number of levels or there is little variation between levels. If there is little change in enemies or combat between levels then the user will become bored due to lack of challenge or stimulation. However, if there is no visual variation between levels then the user can also become bored.   
My game would have a unique background for each level. This would not only help to keep a user’s interest high (particularly for children) but also make the give the player a real sense that they are travelling through different places a galaxy as they progress through the levels.

## 1.3 Why the problem is suited to a computational solution

## 1.4 Stakeholders analysis

### 1.4.1 Stakeholders

### 1.4.2 Interviews with Stakeholders

### 1.4.3 Conclusions from Interview

## 1.5 Research

## 1.6 Features of the proposed solution

## 1.7 Limitations of the solution

## 1.8 Stakeholder Consultation

## 1.9 Hardware and software requirements

## 1.10 The requirements of the solution

## 1.11 Success Criteria