

Final Year Project Report
Zombie Apocalypse (FPS Game)



**University of
Management and
Technology**

Project Advisor: Tayaba Anjum

Submitted By:

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University of Management and Technology
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Dedication

It requires lot of struggles and hard work to achieve your goal. It is not possible without the support of your loved ones to achieve your destination. We dedicate our efforts to our loved ones who are with us in every situation and taught us what is right thing to do.

Parents

Who always supported us and provided us everything we needed. It is the result of their prayers and the efforts they did for us These efforts are dedicated to our parents, who taught me that the best kind of knowledge to have is that which is learned for its own sake. They also taught us that even the largest task can be accomplished if it is done one step at a time.

Teachers

Who not only taught us how to study but also made us realize what we are capable of. They brought out the best of us and educated us. Studying only courses is not what we call education. Education is something that teaches us to differentiate between right and wrong, taking the right decisions on right time and we learnt all this from our teachers.

Final Approval

Panel of Examiners

- **Head of Department**
Department of Computer Science
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- **Program Director (Final Year Projects)**
Department of Computer Science
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- **Supervisor**
Department of Computer Science
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- **Co-Supervisor**

Acknowledgment

“And if you should count the favors of Allah, you could not enumerate them. Indeed, Allah is Forgiving and Merciful.” *Al-Quran [16:18] - Surah An-Nahl*

First and foremost, thanks to ALLAH (S.W.T) for His countless blessing and mercy. Every effort is motivated by an ambition and all ambitions have an inspiration behind in the height of reaching a mile-stone in life. We owe our deep sense of gratitude that helps us in such a constructive work with grateful heart, we are thankful to Ma'am **Tayaba Anjum** (Assistant Professor of Department of Computer Science) whose steadfast support of this project was greatly needed and deeply appreciated. Ma'am Tayaba has been the ideal Project advisor for us. Her sage advice, patient encouragement aided the completion of this project in innumerable ways.

We are sincerely thankful to everyone who provided the necessary facilities for this work. Sincere thanks are extended to the Department of Computer Science and our friends for their valuable advice and moral support. Our thanks are due to our revered parents for their affections, encouragement, patience and support.

Project Title	Zombie Apocalypse	
Objective	Zombie apocalypse is a first person shooting game with dynamic maps, multiple guns and tracking of player through Artificial Intelligence by zombies.	
Undertaken by	Bilal Ramzan	14024020215
	Sheikh Wahab Mahmood	14024020190
	Yousaf Waseem	14024020129
Supervised by	Tayaba Anjum	
Starting Date	20 th Oct 2017	
Completion Date		
Tools Used	Unity, Adobe Photoshop, Mixamo, Autodesk 3ds Max, Blender, Microsoft Visual Studio (C#)	
Operating System	Windows 10	
Documentation	MS Office	

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Abstract

A game with 3D graphics, first person shooter, in which we will move freely in the given world. Hands and gun of the game character will be visible just to interact with the things. Gun will be used to fire freely or to fire the opponents. Bullets of the gun will be limited: we can replenish ammo from the ammo crates or around the map. Bullet will have an effect on the zombies or opponents when we will fire which will result in decreasing opponent's health. Maps will be provided in the game to play and wander around: In game maps will be 2+ in quantity. Player tracking artificial intelligence will be used in game through zombies that it can detect a player's movement and will proceed to attack the player: Which will result in decreasing of player's limited health. Health bar will be 100% at starting by taking damage from the zombies. Health will be reduced by hit from the zombie. HUD (Heads up display) will be shown on the screen which will tell player about remaining health and ammo (bullets). Settings menu will contain the graphic settings: High, Medium and Low.

REVISION CHART

Version	Primary Author(s)	Description of Version	Date Completed
Draft	All members	Initial draft created for Information and requirement gathering	22-12-2017
Preliminary	Bilal Ramzan, Sheikh Wahab, Yousaf Waseem	Functional and non-functional requirements, project overview and system attributes	13-01-2018
Revision 1	Bilal Ramzan, Sheikh Wahab, Yousaf Waseem	Revised draft, requirements and features prototyping, use case diagrams	01-02-2018
Revision 2	Sheikh Wahab, Yousaf Waseem, Bilal Ramzan	Revised draft, updating prototypes, models, design and diagrams	28-02-2018
Revision 4	Sheikh Wahab, Yousaf Waseem, Bilal Ramzan	Revised draft, constraints, development setup, implementation and algorithms	15-04-2018
Revision 5	Sheikh Wahab, Yousaf Waseem, Bilal Ramzan	Revised draft, code snippets and testing	05-06-2018

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Definitions and Acronyms

Acronym is an abbreviation from of the initial letters of other words and pronounced as a word. In this section we have written definition of all the acronyms and special terms we have used in our documentation. In acronym column of Table 1, we have written the abbreviation form of word and in the Definition column there is detail or full form of that acronym with in this document.

Table 1: Table of acronyms and definitions

Acronym	Definition
UMT	University of Management and Technology
POS	Point of Sale
MS	Microsoft
FPS	First Person Shooting
Apocalypse	A disclosure of something hidden or
Zombie	The Reanimation of human Corpse.3
OTA	Over the Air
PS	PlayStation
iOS	iPhone Operating system
COD	Call of Duty
BO2	Black ops 2

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1. INTRODUCTION

This section describes the project and the software product being to be built. Introduction contains motivation, project overview, problem and objectives related to the product.

1.1 Motivations

Shooting games are everyone's favorite. Players always seek to experience something new and better. It also provides high graphical features. Above all players demand more excitement, entertainment and thrill, Horrifying features and difficulty levels in games. Entertainment in a game is fulfilled by just playing or interacting with the player and doing the tasks assigned in the game. When someone tries to play a game, it does not require background knowledge or any guidance to play the game. Designer have designed a level in such a way that he ensures the excitement of a player by which they expect the thrill in the game.