

# Software Requirements Specification for Rampage (FPS game)

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# Chapter 1

## Introduction

This section gives a scope description and overview of everything included in this SRS document. Also the purpose of this document is described and a list of abbreviations and definitions is provided.

### Purpose

The purpose of this document is to give a detailed description of the requirements of the "RAMPAGE" software (game).It will illustrate the purpose and complete declaration for the development of system. It will also explain constraints, interface and interactions with users and external applications. This document is primary intended to be proposed to a customer for its approval and a reference for describing the first version of the system for the development team.

### Document Conventions

Term	Definitions
Users/players	Someone who interacts with the system
Fps	First Person Shooter

### Product Scope

"RAMPAGE" is a multiplayer, fps, horror game mainly designed for people with greater than 16 years .It is for entertainment purpose only. Players can join by lobby and play game.

## References

1. <https://unity3d.com/learn/tutorials>
2. <https://www.assetstore.unity3d.com/en/#>
3. [https://en.wikipedia.org/wiki/Perlin\\_noise](https://en.wikipedia.org/wiki/Perlin_noise)

## Chapter 2

# Overall Description

This section will give an overview of the whole system. The system will be explained in its context to show how the system interacts with another system and introduce the basic functionality of it. It will also describe what type of stakeholders that will use the system and what functionality is available for each type. At last, the constraints and assumptions for the system will be presented.

### Product Perspective

"RAMPAGE" is mostly aimed at users aged between 16 and 60. It is simply a shoot-to-survive game, with realistic graphics and dark music and environment to appease those looking for some action in the screen.

### Product Functions

The key features in the game are:

- Menu driven GUI Interface
- Enemies having AI
- Lobby creation for multiplayer
- Dark graphics and music for environment

### User Classes and Characteristics

There are only one type of users in this system, the players. Players interact with the system with the help of GUI interface.

## **Operating Environment**

This game is targeted for the Windows environment, preferably Windows 7 and above. DirectX10 and above is mandatory too.

## **Design and Implementation Constraints**

The network connection is a constraint for the application. Since the application fetches data from the database over the internet. It is crucial that there is an Internet connection for the application to function.

Power failure is also a constraint, as there is a multiplayer game, so there is no saving option.

## **User Documentation**

This product is under development state and requires a complete implemented prototype to explain the user documentation.

## **Assumptions and Dependencies**

Our assumption about the product is that it will always be used on Windows OS and pc having enough capability to run this application smoothly.

Another assumption is that there is always a good Internet connection.

## Chapter 3

# Specific Requirements

This section contains all of the functional and quality requirements of the system. It gives a detailed description of the system and all its features.

### External Interface Requirements

This section provides a detailed description of all inputs into and outputs from the system. It also gives a description of the hardware, software and communication interfaces and provides basic prototypes of the user interface.

### User Interfaces

Some of the intended looks for the GUI of the game is as given below:





## Hardware Interfaces

No specific hardware components required. However, the ones mentioned below are mandatory:

- Basic PC setup
- Good Headphones

## Software Interfaces

It uses mostly C# language for coding, Unity game engine for developing the game and Blender for graphical models.

## Functional Requirements

The functional requirements of the game are as follows:

- Dark Environment: Being a horror game, this is a must. It can be achieved by using a dark landscape and lack of lighting.
- Game Menu for User Interaction: Like most games, a proper menu for navigation around the game is a necessity.
- Shooting: Player must be able to shoot at enemies and survive waves of death.
- Realistic graphics and gameplay: Unity engine and Blender make this look easy, with best quality shaders and rendering.
- Tough enemies: The toughness of the enemies is to be set up in the code.
- Artificial Intelligence for the Enemies: To avoid making it look too easy, some intelligence is to be planted in the enemies.
- User health: On taking hits from the enemies, the user will be taking damage, and hence a health bar is placed to notify the player of their current health.
- Terrain Generation: The terrain shall be dynamically generated, and only the immediate terrain in the vicinity of the player shall be visible, hence loading time shall be less and the application won't be heavy on the resources.

## **Other Nonfunctional Requirements**

### **Performance Requirements**

The game will run without any lag on a PC running Windows 7 and above, with at least 4 GB RAM, and a 2 GB AMD Radeon or similar graphics card. For best performance, use an 8 GB RAM with 4 GB Nvidia G-series, with a resolution of 1366 x 768.

### **Safety Requirements**

Since there are lots of flashy objects and movements, some users might face headaches, nausea or similar symptoms. If you are epileptic, please stop the game and get medical help.

### **Security Requirements**

There are no possible ways to hack or break the game. User information is not recorded at any point.

## **Other Requirements**

### **Legal Requirements**

# Appendices

Appendix A

Glossary

## Appendix B

### Analysis Models

## Appendix C

### To Be Determined List