

# Group 11 SRS Document

February 8, 2019

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# 1 Introduction

## 1.1 Purpose

## 1.2 Scope

## 1.3 Definitions, Acronyms, and Abbreviations

*Player* - The central playing piece of the game and the avatar that the user controls to interact with the game

*Map* - A network of interconnected rooms that form the available playing space for the player

*Levels* - A series of stages of incrementing difficulty that the player traverses

*Spawn Room* - The starting room that the player spawns in when entering a map for the first time

*Inventory* - The space that allows a player to store items, funds, and equipment

*Skills* - Abilities that a player can acquire from playing the game that improve the combat effectiveness of the player

*Entities* - Objects that the player can interact with

*Crafting* - The act of combining two or more items to create a new item

*Ingredients* - The material items that are consumed during crafting

## 1.4 References

## 1.5 Overview

# 2 Overall Description

## 2.1 Product Perspective

## 2.2 Product Functions

## 2.3 User Characteristics

## 2.4 Constraints

## 2.5 Assumptions and Dependencies

## 2.6 Apportioning of Requirements

# 3 Functional Requirements

### VP1. User

#### BE1.1 The user wants to start game

- i. The system presents a menu with the option of starting a new game or loading a previous save file
- ii. The user must be able to select either option of starting a new game or loading a previous save
- iii. If load game is selected, a list of all save files is presented
- iv. Each save file must be selectable

#### BE1.2 The user starts a new game

- i. A *Level 1 Map* must be generated
- ii. The *Player* must be placed in the *Spawn Room*
- iii. The player's *Inventory* must be created

#### BE1.3 The user loads a game

- i. The map must be loaded from the save file
- ii. The Player must be placed in the Spawn Room
- iii. The Player's Inventory must be loaded from the save file

- iv. All previously attained *Skills* must be loaded from the save file

BE1.4 The user wants to traverse the map

- i. The Player must move in the direction given by the user's input
- ii. Each room must have at least one passage to another room or level
- iii. The Player must be able to enter through each passage
- iv. Each room must have associated *Entities*
- v. The state of each room must be saved when exited
- vi. A newly entered room must generate all of its Entities

BE1.5 The user wants to buy an item

- i. Each Map generated must have at least one *Shop*
- ii. Each Shop must have a list of items with an associated cost
- iii. The Player must be able to interact with the shop
- iv. The Player must be able to purchase items from the Shop if they have sufficient funds in their Inventory

BE1.6 The user wants to craft an item

- i. The Player must be able to open a menu listing all of their owned items
- ii. The Player must be able to combining two or more items in their Inventory to create new items
- iii. If an item is *Crafted*, it is added to the inventory and its *Ingredients* are removed from the Inventory

BE1.7 The user initiates combat with an enemy

- i. Requirement
- ii. Requirement
- iii. ...

BE1.8 The user initiates combat with a boss

- i. Requirement
- ii. Requirement
- iii. ...

BE1.9 The user enters a level transition

- i. Requirement
- ii. Requirement
- iii. ...

## **4 Non-Functional Requirements**

### **4.1 Look and Feel Requirements**

#### **4.1.1 Appearance Requirements**

LF1. The game interface shall be easy and clear for users to operate.

LF2. The game must not contain any frightening scenes.

#### **4.1.2 Style Requirements**

LF3. The user should feel that the gameplay increases in difficulty as their game progress increases

### **4.2 Usability and Humanity Requirements**

#### **4.2.1 Ease of Use Requirements**

UH1. Gameplay shall be easy for a person of 10 years of age or older to learn.

#### **4.2.2 Personalization and Internationalization Requirements**

N/A

#### **4.2.3 Learning Requirements**

UH2. It shall take a maximum time of 5 minutes to learn the basic operation

UH3. After a full read through of the provided instruction manual, the user should be able to use all in-game functionality with ease

#### **4.2.4 Understandability and Politeness Requirements**

- UH4. All in game icons shall be taken from their common usage icons where applicable.
- UH5. The appearance of all food enemies will be intuitive to their physical appearance
- UH6. New terminology used in game shall come with a brief explanation of their meaning
- UH7. Ambiguous language, such as words with conflicting alternate meanings, used in in-game decisions shall have their meaning clarified

#### **4.2.5 Accessibility Requirements**

- UH8. The game navigation shall be based on the standard PC control scheme of using WASD mapping, and the mouse.
- UH9. All in game elements will have high contrast with surrounding elements to aid colour blind users
- UH10. All fonts used for in-game text shall be deemed accessible
- UH11. All information communicated via sound shall have an accompanying box of text transcribing the information
- UH12. The user should be able to mute or reduce the volume of in-game sound effects and music
- UH13. The user should be provided with an epilepsy warning in advance of scenes with flashing lights or rapidly changing colours

### **4.3 Performance Requirements**

#### **4.3.1 Speed and Latency Requirements**

- PR1. The response time shall be within 1 ms.
- PR2. Setting up a new game shall take no more than 5 seconds.



#### **4.3.2 Safety-Critical Requirements**

N/A

#### **4.3.3 Precision or Accuracy Requirements**

N/A

#### **4.3.4 Reliability and Availability Requirements**

PR3. The game shall be able to run 24 hours per day, 365 days per year.

#### **4.3.5 Robustness or Fault-Tolerance Requirements**

PR4. The game shall not be affected, such as information loss, due to any internet issue.

#### **4.3.6 Capacity Requirements**

PR5. The game shall store achievement data for up to one player

#### **4.3.7 Scalability or Extensibility Requirements**

N/A

#### **4.3.8 Longevity Requirements**

N/A

### **4.4 Operational and Environmental Requirements**

#### **4.4.1 Expected Physical Environment**

N/A

#### **4.4.2 Requirements for Interfacing with Adjacent Systems**

N/A

#### **4.4.3 Productization Requirements**

N/A

#### **4.4.4 Release Requirements**

- OE1. Maintenance releases that fix an error within the game shall be available as soon as they are produced
- OE2. Feature releases will be comprised of numerous features and will be released with a maximum monthly frequency

### **4.5 Maintainability and Support Requirements**

#### **4.5.1 Maintenance Requirements**

- MS1. Levels should be modifiable after the product's release
- MS2. Floors should be modifiable after the product's release
- MS3. The ability to add new levels (and floors) after the product's release should be available
- MS4. The variety of food should be modifiable after the product's release.

#### **4.5.2 Supportability Requirements**

- MS5. The game shall provide the user with a comprehensive set of instructions
- MS6. The game shall provide the user with a set of Frequently Asked Questions
- MS7. The game shall provide the user with a detailed explanation of the functionality of each item that may appear.

#### **4.5.3 Adaptability Requirements**

- MS8. The game is expected to run under Windows and Linux operating system

## **4.6 Security Requirements**

### **4.6.1 Access Requirements**

N/A

### **4.6.2 Integrity Requirements**

N/A

### **4.6.3 Privacy Requirements**

N/A

### **4.6.4 Audit Requirements**

N/A

### **4.6.5 Immunity Requirements**

N/A

## **4.7 Cultural and Political Requirements**

### **4.7.1 Cultural Requirements**

CP1. The game shall not include any features that could be considered offensive in any of our market countries.

### **4.7.2 Political Requirements**

1. N/A

## **4.8 Legal Requirements**

### **4.8.1 Compliance Requirements**

LR1. All game asset shall be compliant with the Web Content Accessibility Guidelines

#### 4.8.2 Standards Requirements

N/A