Text-Based Adventure Game: Haunted Mansion

Software Requirements Specification

February 23rd, 2025

[ Superhero Squad]

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A black mask with lightning bolt in a blue wreath

AI-generated content may be incorrect.

Revisions

| Version | Primary Author(s) | Description of Version | Date Completed |
| --- | --- | --- | --- |
| Version 1 | Razan Abdalla, Justin McCabe, Jose Montejo, Nelly Eligwe, Shayla Pham | This version of the game is a standalone, text-based adventure featuring puzzles, combat, and inventory management. Players navigate through different areas, solve logic-based challenges, and battle monsters using collected weapons. The game includes a sanity and health system, affecting gameplay based on player choices. It operates independently, internet connection. | Feb/20/25 |

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# Introduction

## 1.1 Purpose (Razan)

The purpose of this document is to define the functional and non-functional requirements for the text-based adventure game. This game will provide an interactive experience where players control a squad of superheroes, navigate different locations, and combat villains while making strategic decisions.

## 1.2 Scope (Razan)

The Text-Based Adventure Game is a single-player interactive game set in a haunted mansion. Players explore rooms, solve puzzles, and engage in combat using text commands. The game involves managing health and sanity, using items like weapons and healing items, and facing random encounters.

The software will be available for download and played on a device without needing an internet connection. It relies on text inputs and outputs for gameplay, with no graphical interface. The main goal is to uncover the mansion's mysteries while surviving challenges and progressing through the story.

## 1.3 Definitions, Acronyms, and Abbreviations (Razan)

|  |  |
| --- | --- |
| Term | Definition |
| FR | Functional Requirements – Describes the expected functionality of the system, detailing what the system should do. |
| ID | Identifier – A unique code used to reference each functional requirement. |
| DESC | Description – A detailed explanation of what the functional requirement entails. |
| TITLE | The name or title of the functional requirement. |
| Puzzles | Interactive challenges the player must solve to progress in the game, such as unlocking doors or finding hidden items. |
| Final Boss | The last challenge in the game, typically a difficult enemy that concludes the story. |
| Health | A measure of the player's vitality. If health reaches zero, the player loses the game. |
| Player | The individual interacting with the game, solving puzzles, and battling monsters. |
| Inventory | A collection of items, weapons, and consumables that the player collects during the game. |
| Monster | A non-player character (NPC) that the player encounters, which they must defeat or avoid. |
| Skip | |  | | --- | | A command that allows the player to bypass a puzzle without solving it. | |
| Ignore | A command that allows the player to abandon a puzzle after an incorrect attempt. |
| Guess | |  | | --- | | A command used to input an answer for a guessing puzzle. | |
| Request Hint | A command that provides the player with a clue for a puzzle. |
| Solve | |  | | --- | | Successfully completing a puzzle by providing the correct answer. | |
| Feedback | A message informing the player whether their answer is correct or incorrect. |

## 1.4 References (Razan)

We did not use any references; we are the original author of this game and created it entirely from scratch.

## 1.5 Overview (Shayla)

The rest of this document will contain the overall descriptions and specific requirements.

The second chapter will provide a broad understanding of the text-based adventure game. It will entail the game’s perspective and functions. It will explain the user characteristics, constraints, and assumptions of the game.

The third chapter provides the specific requirements in detail and contains the descriptions of each of the attributes of the game. The game map is provided first and will be followed by tables describing rooms, monsters, puzzles, items, navigation, and user interface.

# Overall Game Description

## 2.1 Product Functions (Justin)

The software once clicked to play will launch a text-based game that functions on user typed in input to run. The game will only stop once the game is over after a user playthrough or if the user manually selects the stop program button.

## 2.2 User Characteristics (Razan)

The game is designed for players who can read and write in English and have basic computer skills, such as using a keyboard, mouse, or touch interface. It will prioritize simplicity and clear instructions to ensure accessibility for a wide audience. There is only one user/player that can play the text-based adventure game. The user is able to start the game, interact with monsters, solve puzzles, collect or use items, and even exit the game.

## 2.3 Constraints (Razan)

* The game should be **user-friendly**, with an intuitive interface, clear navigation menus, and easy-to-understand controls.
* It should provide **helpful error messages** and tooltips to guide players if they make mistakes.
* The system must **handle all exceptions gracefully**, preventing crashes and ensuring smooth gameplay.
* The game should handle the invalid input, without any crashing or affecting the game’s functionality.

## 2.4 Assumptions and Dependencies (Shayla)

The text-based game assumes that the system will operate on the desktop on any Java IDEs. The code should be organized in clearly defined class and methods to allow for easier bug fixes and maintenance.

## 2. 5 Apportioning of Requirements (Shayla)

Not applicable

# Specific Requirements

## A screenshot of a diagram AI-generated content may be incorrect.3.1 Overall Game Description (Razan)

## 3.1.1 Table of Rooms

|  |  |  |
| --- | --- | --- |
| **Room Floor & Name** | **Room Description** | **Room Exits** |
| 1st Floor: **Entrance (R8)** | As you enter the haunted Ravenshade Manor, you feel a light breeze past you. Everything around you is dark and grim looking. The chandelier above you sways slightly, as it flickers of candlelight. You see a tattered red carpet leading further inside, its deep stains smell of old wine. As you are about to enter you feel as if there are faint whispers welcoming you in. | -Living Room (R2)  -Office (R1)  -Stairs to the second floor |
| 1st Floor: **Office #1 (R9)** | You smell a heavy scent of ink, as you look around. There is a large oak desk in the center of the room, it's covered with yellow documents. The ink of the table is dry, but it seems like the messages on the yellowed paper had just been written. A creepy spider picture hangs crooked on the wall, its eyes appearing to shift when you look away. In the dim window light, a typewriter’s keys occasionally click on their own. | -Entrance (R8) |
| 1st Floor: **Family** **Room (R4)** | As you enter, you see many different family portraits. All of the people in the portraits seem to be forcing a smile. The air is completely still but the rocking chair in the corner sways gently. The fireplace has a pile of charred wood, yet faint embers glow in the ashes, like they had been burning only moments ago. You can’t see where, but you hear a child’s laughter. It fades into an uneasy silence. | -Living Room (R2)  -Break Room (R3) |
| 1st Floor: **Break** **Room (R3)** | This room seems small but cozy even though the wooden floors were worn. The faint smell of stale coffee lingers through the air. A single, round table sits in the center, surrounded by mismatched chairs. The cabinets above the counter are cluttered with random items — old lunchboxes, chipped mugs, messed up dolls and scattered papers. Cobwebs cling to the corners of the room as you look around. And for a second, you saw a glimpse of a shadow moving, but as you turn it was gone. | -Family Room (R4)  -Living Room (R2) |
| 1st Floor: **Living Room (R2)** | You feel as if you are being watched as you enter. The walls are bare, stripped of any decoration. There is an old wooden piano in the corner, you felt like it was playing music by itself. It then got quiet, but then out of nowhere, the faintest giggles echoed through the room. The wood floor was scratched up, it was like someone, or something has been trying to claw through it. | -Office (R1)  -Dining Room (R7)  -Entrance (R8)  -Family Room (R4)  -Break Room (R3) |
| 1st Floor: **Office #2 (R1)** | The desk is overturned, its drawers pulled out and emptied, papers scattered across the floor like someone fled in a hurry. The chair behind the desk seemed to be still warm, though there were no signs of anyone there. The lamp in the corner flickers, casting elongated shadows. The shadows stretched unnaturally far across the room. | -Restroom (R5)  -Living Room (R2) |
| 1st Floor: **Restroom (R5)** | The first thing you notice is the cracked mirror above the sink. The longer you stared, it distorted your reflection. The rusty sink faucet drips steadily, yet the water pooling in the basin is an inky black, absorbing the dim light of the room.  The shower curtain is drawn closed, but a faint outline of a figure lingers behind it. As you take a step closer, the curtain blows outward towards you, as if something is trying to escape. | -Office (R1)  -Dining Room (R7)  -Study (R6) |
| 1st Floor: **Study** (**R6)** | The walls are lined with many bookshelves, each book being very thick and coated in dust. One book though was missing from the collection. You smell a peculiar smell; it smells of candle wax and something sickly sweet. As you pass by the desk, the quill resting on it quivers, as if resisting the urge to write. There is a map on the desk, but it was too old to comprehend. The leather armchair by the fireplace has deep indentations in the cushions, as if someone sat there for years and didn’t move. | -Restroom (R5) |
| 1st Floor: **Dining Room (R7)** | The scent of aged wine and damp oak permeates the air. The door creaks as it closes behind you, sealing you momentarily in a suffocating darkness. Just as your eyes adjust, you hear a sharp rustling. You spot a rat fading away in the darkness. There is a loaf of bread on the floor but was untouched by the rat. There’s a wine glass filled to the brim, but no one seemed to have touched it yet. | -Restroom (R5)  -Living room (R2)  -Stairs to basement |
| 2nd Floor: **Hallway (R13)** | The hallway was long and dark, dimly lit by the small window overhead. As you step in, the floor creaking loudly with every step due to the uneven floorboards. Each step sounds like a warning. The air is thick with mildew and damp wood. A faint sound, like the distant scurrying of small feet, catches your attention, but when you glance around, there's nothing there. The sense of being watched grows stronger with every moment you linger. | -Stairs back to dining room  -Bathroom (R14)  -Master bedroom (R12)  -Closet (R11) |
| 2nd Floor: **Bathroom (R14)** | A mist clings to the air, carrying the scent of lavender and something more metallic beneath it, perhaps the smell of fresh blood. The mirror has smeared red handprint, as if someone got dragged away. The drain gurgles softly, whispering words you cannot quite understand. You feel the need to leave because the bath started filling up itself with murky water. | -Hallway (R13)  -Bedroom #1 (R15)  -Bedroom #2 (R16) |
| 2nd Floor: **Bedroom #1 (R15)** | The bed is pushed against the far wall, its sheets tangled and torn, like someone had struggled in their sleep.  A child's diary sits open on the nightstand, its last entry scrawled frantically: "He comes when I close my eyes, I’m scared." The stuffed animals are neatly arranged except for one. As you bend to go pick it up, you hear a muffled breath from inside. | -Bathroom (R14)  -Bedroom #2 (R16) |
| 2nd Floor: **Bedroom #2 (R16)** | The wallpaper in this room is older than all of the other rooms you have entered. The peeling of the wallpaper reveals layers of scribbled writing. You can’t make out what it says, but it seems like the messages were written by shaking hands. You spot tally marks, like someone or something was counting something. A mirror leans against the wall, but instead of reflecting the room, it shows a door that doesn’t exist. The air carries the faintest sound of someone softly humming an old, forgotten lullaby. | -Bathroom (R14)  -Bedroom #1 (R15) |
| 2nd Floor: **Master bedroom (R12)** | The bedroom is filled with many paintings, all abstractly random images. The bed was made though the pillows were missing. A jewelry box sits open on the vanity, its interior empty except for a single, broken locket. The wardrobe door is ajar, revealing a dark space inside that feels far deeper than it should be. Just as you turn away, you hear the soft rustle of fabric shifting within. | -Hallway (R13)  -Closet (R11)  -Master Bathroom (R10) |
| 2nd Floor: **Master bathroom**  **(R10)** | The sink is not clean, and all of the sink’s contents are on the cold floor. The deep porcelain tub appears new, but a faint red stain lingers along the rim. The medicine cabinet door is slightly open, revealing empty shelves except for a single, yellowed prescription bottle. A faint scratching sound echoes from the drain, like the sound of fingernails scraping against the pipes. | -Master Bedroom (R12)  -Closet (R11) |
| 2nd Floor: **Closet (R11)** | As you open the closet door, hundreds of moths fly out at you. You smell a stench of decay. Clothes dangle limply from rusted hangers, some of them torn. The top of the closet is filled with empty, dusty shoe boxes. As you turn to leave, the hangers sway violently, as if an unseen figure has just brushed past them. | -Master Bathroom (R10)  -Master Bedroom (R12)  -Hallway (R13) |
| Basement: **Backyard (R22)** | You stepped onto grass that is brittle and yellowed. As you step on it, it crunches underneath you even though the air is damp. You feel happy to see the outside and not be stuck in all these eerie rooms. You look for a way out, but the dark tall fences show you no way out. A lone swing dangles from a rotting oak tree, swaying slightly. You hear a child’s laughter carried in the darkness beyond the fences. Behind you, the house looms, and for a moment, it feels as though it's breathing. | -Bedroom (R17)  -Living Room (R19)  -Playroom (R20) |
| Basement: **Bedroom (R17)** | This bed is small with its sheets covered in dust. The satin green sheets are  stained by black spots. Scratched into the wall above the headboard are the words: "She watches from the dark and haunts me in the day." The air is thick and heavy, pressing against your chest. The closet door trembles slightly, as if something inside is waiting for you to open it. But when you tried to open it, the lock latched. | -Backyard (R22)  -Living Room (R19)  -Bathroom (R18) |
| Basement: **Bathroom** (R18) | The toilet lid is down, yet a faint, rhythmic tapping echoes from inside the bowl. A single, rotting towel hangs on the rack, stained with something too dark to make out. You trip and when stopping your fall, you touched the blood on the wall. You try to wash your hands at the sink, but when you try to turn it on, it turns back off. That freaks you out so you back away. | -Bedroom (R17) |
| Basement: **Living Room (R19)** | The unplugged television turns on the second you walk in. It hums with static as you look around. The dim light bulb flickers, casting shadows of everything in the room. The air smells faintly of burned wood, though the fireplace remains cold and untouched. The windows around are stained black making it hard to see anything outside of the mansion. | -Stairs back up to first floor  -Bedroom (R17)  -Backyard (R22)  -Playroom (R20)  -Kitchen (R21) |
| Basement: **Playroom (R20)** | Dolls sit lined up on a shelf, you notice their dark eyes following you no matter where you move. The forgotten teddy bear next to the doll’s rests on the floor, a single button eye missing. Its stitched mouth is curved into a smile it didn’t have before. The wooden rocking horse sways back and forth without being occupied, the creaking gets louder the longer you stay. | -Kitchen (R21)  -Living Room (R19)  -Backyard (R22) |
| Basement: **Kitchen (R21)** | Unlike the 1st floor kitchen, this one seemed cleaned. The countertops are of pristine condition, in fact too pristine. It was like someone had scrubbed them for a long time. You hear a faint sound of a knife scraping against the wood, as it echoes from somewhere within the walls. An empty bowl sits there with a fork beside it, and as you reach to feel it, you jump back! The fork was still warm. | -Living Room(R19)  -Playroom (R20) |

### 3.1.2 Table of Monsters

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Monster Name | Description | Health Points | Attack Power | Special Abilities/Notes | Location |
| The Ravenborn (Final Boss) | A monstrous fusion of shadow and raven, with a skeletal raven’s skull and pulsating black feathers. Its abyssal eyes glow with malevolent fire, embodying the failed ritual’s aftermath. | 250 | 20 | Must be weakened by solving a specific puzzle before full damage can be dealt. Summons minions every 3 turns. Resistant to blow darts. | Master Bedroom (Final Boss) |
| The Hollow Child (Edmund Raven shade) | A childlike figure dressed in tattered, moth-eaten clothing. His smooth, featureless face evokes both pity and terror. He silently observes intruders, his presence heavy with sorrow. | 50 | - | Does not attack. If the player remains in the room too long, they are forced out by an unseen force. Cannot be attacked. | Basement Bedroom |
|  |  |  |  |  |  |
| Mirror Wraiths | Ghostly entities that inhabit mirrors. They mimic reflections with subtle distortions, creating unease before stepping through the glass to attack. | 100 | 15 | Spawns from mirrors; breaking the mirror before full emergence cancels the encounter. Cannot be damaged by melee weapons but is vulnerable to Thor’s Hammer. | Throughout Mirrors |
| Spectral Guardians | Ghostly remnants of the manor’s former servants. Their forms flicker between human and skeletal as they silently patrol the halls. | 120 | 12 | Moves between rooms every few turns. If encountered, they attack immediately. Can be temporarily stunned using the Shield. | Mansion’s Halls |
| The Screaming Widow | A ghostly bride with a veil covering her disfigured face. She weeps softly but emits a deafening scream when disturbed. | 90 | 18 | Screams on first turn, dealing 10 damage to the player unless they attack first. Vulnerable to blow darts, which silence her scream. | First Floor Study |
| The Reflection Phantom | A distorted version of the player’s reflection that emerges from mirrors to stalk them. It mimics the player’s movements with eerie accuracy. | 80 | 15 | Can only be damaged if the player does not attack for one turn, revealing its weak point. Defeating it restores some health. | Hallway Mirrors |
| The Toybound Horror | A grotesque amalgamation of broken toys and dolls, speaking in distorted childlike voices. It haunts Edmund’s Playroom. | 150 | 10 | Assembles over time; solving puzzles weakens it. If fully assembled, it gains a second attack per turn. Weakened by solving Playroom puzzles. | Basement Playroom |

### 3.1.3 Table of Puzzles

|  |  |  |  |
| --- | --- | --- | --- |
| Puzzle | Description | Location | How 2 solve |
| 1 Number guessing puzzle | A random generated number game where user tries to guess the correct number from 1-10. | Anywhere | Player has to correctly guess the randomly generated number. |
| Number sequence puzzle | Shows player the numbers 2,6,12,20, 30 asks what’s the next number in the pattern. | Anywhere | Player types in the number 42. |
| Odd number riddle | Shows player “I’m an odd number take away 1 letter and now I'm even what am I?” | Anywhere | Player types in either the number 7 or the word “Seven” |
| Opposite word puzzle | Shows player the words yes up or win and asks for the opposite of these words. | Anywhere | Player types in no, down, lose. |
| Quote puzzle | Shows player the phrase “Yesterday was history, tomorrow is a mystery, and today is gift which is why it’s known as the: ” and asks user for word | Anywhere | Player types in present |
| Riddle 1 | Shows player “I’m tall when I’m young but short when I'm old what am I?” asks user for the word | Anywhere | Player types in candle |
| Riddle 2 | Shows player “The more you take the more you leave behind what am I?” asks user for the word | Anywhere | Player types in footsteps |

### 3.1.4 Table of Artifacts/Items

|  |  |  |  |
| --- | --- | --- | --- |
| **Item Name** | **Type** | **Actions** | **Description** |
| Green Apple | Consumable | Pick Up, Consume | A fresh green apple that restores +10 health when eaten. |
| Yogurt | Consumable | Pick Up, Consume | A small cup of yogurt that restores +20 health when consumed. |
| Fruit Roll-Up | Consumable | Pick Up, Consume | A sweet, chewy snack that restores +5 health when eaten. |
| 1st Aid Kit | Consumable | Pick Up, Consume | A medical kit that restores +30 health when used. |
| Chewing Tobacco | Consumable | Pick Up, Consume | A small pouch of chewing tobacco that restores +25 health when used. |
| Sword | Weapon | Pick Up, Use, Swap | A sharp blade that deals -20 health to a monster when used in combat. |
| Blow Dart | Weapon | Pick Up, Use, Swap | A lightweight dart that deals -10 health to a monster when used. |
| Shield | Weapon | Pick Up, Use, Swap | A sturdy shield that blocks monster attacks, reducing damage to 0, and deals 5 damage to the monster when used. |
| Monster Cream | Consumable | Pick Up, Consume | A strange cream that makes the player immune to monster attacks while in use. |
| Thor’s Hammer | Weapon | Pick Up, Use, Swap | A legendary weapon that deals -80 health to a monster when used in combat. Drops in current room when all puzzles are solved. |

### 3.1.5 Table of Navigation Command

|  |  |
| --- | --- |
| **Command** | **Description** |
| Go North | Moves the player to the room located north of their current position, if accessible. |
| Go South | Moves the player to the room located south of their current position, if accessible. |
| Go East | Moves the player to the room located east of their current position, if accessible. |
| Go West | Moves the player to the room located west of their current position, if accessible. |
| Go Upstairs | Moves the player to an upper floor if stairs are accessible. Some staircases may require a key. |
| Go Downstairs | Moves the player to a lower floor if stairs are accessible. Some staircases may require a key. |
| Open Door | Opens an unlocked door to access a new room. Locked doors require specific items or puzzle solutions. |
| Check Map | Displays a basic layout of discovered rooms and their connections, helping the player navigate. |

### 3.1.6 User Interfaces (Razan)

|  |  |
| --- | --- |
| Menus | Description |
| **Main Menu** | Displays options such as "Start Game" and "Exit." The player can navigate through the options using writing. |
| **Inventory Menu** | Shows a list of items the player has collected. Players can select items to view details or use them in the game. |
| **In-Game Navigation Menu** | Provides directional options such as "Go North," "Go South," "Go East," and "Go West” "Players can interact with these actions by typing (e.g., 1 for "Go North," 2 for “Go South," 3 for "Go East," 4 for "Go West"). |

## 3.2 Functional Requirements

This section will include all the functional requirements needed to specify the actions of the text-based adventure game.

### 3.2.1 Feature 1: Items

### 3.2.1.1 Functional requirement 1.1 - Justin

ID: FR1

TITLE: PICK UP ITEMS

DESC: when player is in a room with an item the player can pick up the item using “PICK UP”.

“PICK UP” items are split into 2 categories. Items added to inventory and items you can only have 1 of.

Items added to inventory-Items that when picked up are added to an inventory that can be accessed whenever the player wants. Player can have as many of these as they want.

These items are (green apple, yogurt, fruit roll up, 1st aid kit, chewing tobacco, Monster cream).

Items you can only have 1 of- Items that when picked up you can only 1 of at the moment

These items are (Sword, Blow dart, Shield, Thor’s hammer)

If you pick up 1 of these items and try to pick up another 1 of these items, you will get an error message saying “you can’t pick up this item only SWAP it”

3.2.1.2 Functional requirement 1.2 - **Justin**

ID: FR2

TITLE: CONSUME ITEMS

DESC: when player has items added to inventory (green apple, yogurt, fruit roll up, 1st aid kit, chewing tobacco, Monster cream) player can use these items for their benefits by using “CONSUME”

When player enters “CONSUME” it will display which of these items you have and how many you have in some sort of format

Player can “CONSUME” these items once then they removed from inventory. 1 time use.

There can be multiple of these items on the map so player can pick up multiple of the same item. (So if map has 3 green apples player can pick up and have 3 green apples in inventory. If player consumes green apple now you have 2 left in inventory).

If they have 0 of these items they can’t “CONSUME” anything

3.2.1.3 Functional requirement 1.3 - **Justin**

ID: FR3

TITLE: SWAP ITEM

DESC: When the player has already picked up 1 of the Items you can only have 1 of (Sword, Blow dart, Shield, Thor’s hammer) and tries to "PICK UP" another of these it will display an error message of “you can’t pick up this item only SWAP it”.

Since you can’t have more than 1 of these at a time you must use “SWAP”.

“SWAP” drops the current item and replaces it with the other item and drops the replaced item wherever the “SWAP” occurred.

3.2.1.4 Functional requirement 1.4 - **Justin**

ID: FR4

TITLE: USE ITEM

DESC: When player has already picked up 1 of the Items you can only have 1 of (Sword, Blow dart, Shield, Thor’s hammer) and encounters a monster they can “USE” item to deal damage to monster.

If player tries “USE” when none of these items are picked up it displays error message saying “I can’t use anything”

If player tries “USE” with no monster around it displays error message saying “I have nothing to use this on”

If player has “PICK UP” with Shield the “USE” also has the added benefit of protecting player from monster to where it can’t hurt the player in addition to doing damage to monster.

### 3.2.2 Feature 2: Puzzles Adds note saying player MUST solve a minimum of 4 puzzles. (Win condition)

### 3.2.2.1 Functional requirement 2.1 - Shayla

ID: FR11

TITLE: Start Puzzle

DESC: As a player, when a puzzle is encountered, I should be prompted with “To play the puzzle, type “Start puzzle” or you can skip by using the command “Skip””.

3.2.2.2 Functional requirement 2.2 - **Razan**

ID: FR12

TITLE: Examine Puzzle

DESC: If player chooses to Start puzzle prompts user with “Examine to view puzzle or Skip to ignore (-20 health per skip)”. If the player chooses “examine” it then displays the puzzle of that room.

3.2.2.3 Functional requirement 2.3 - Justi**n**

ID: FR13

TITLE: SKIP Puzzle

DESC: As a player, when puzzle is encountered, and player does not want to start the puzzle or has already examined it or attempted it but does not want to continue they can choose “SKIP” to ignore the puzzle prompt and continue doing what they were doing with a penalty of 20 health per each skip used. Adds note saying player MUST solve a minimum of 4 puzzles.

3.2.2.4 Functional requirement 2.4 - **Razan**

ID: FR14

TITLE: Attempt Puzzle

DESC: After “examine” with the displayed puzzle asks player Do you still want to attempt puzzle? (-10 health for every wrong guess, +10 health for correct guess, -20 health if you skip). If Player types “attempt puzzle” asks player for the answer and if player guesses correct they gain +10 health and puzzle is solved so it won’t appear anymore. If they attempt and get it wrong they lose 10 health. Player can attempt as often as they want until health drops to 0. If player completes all puzzles the Thor’s hammer drops into the current room.

### 3.2.2 Feature 3: Monsters (Justin)

### 3.2.3.1 Functional requirement 2.1 - Justin

ID: FR1

TITLE: Examine monster

DESC: As a player, when a monster is encountered, The player should be able to examine the monster using “examine”. After “examine” it should display the monster name, description, and the monster stats like their health and how much damage they deliver per attack.

### 3.2.3.2 Functional requirement 3.1 - Justin

ID: FR2

TITLE: Fight monster

DESC: As a player, when a monster is encountered, The player should be able to fight the monster using “fight”. Fight leads to a turn styled battle between player and monster.

### 3.2.3.3 Functional requirement 3.1 - Justin

ID: FR3

TITLE: Flee monster

DESC: As a player, when a monster is encountered, The player should be able to flee the monster using “flee”. The flee will go back to navigation panel and force the player to leave the room. If player only enters or examines a room and uses flee it will be no penalty to user. If player starts fight and flees a penalty of –10 health will be applied to player.

### 3.2.3.4 Functional requirement 3.1 - Justin

ID: FR4

TITLE: Beg monster

DESC: As a player, when fight is initiated with monster player will have option to beg for forgiveness using “beg”. Using math.random it will ask for player to guess the number 1 or 2. If player guesses correctly it will display “Monster has forgiven you” and allow you to leave the room with current health but restores monster health back to original amount. If incorrect guess displays “Monster has not forgiven you” and ends the game. Each monster has only 1 beg available. If player uses beg a 2nd time it displays “Beg not available”.

**3.2.3 Feature 3: Monsters (Nelly)**

## 3.2.3.2. Functional Requirement 3.2 – Flee

ID: FR02

Title: Flee

Description:

* Success Rate: 50% base chance, modified by:
  + Low HP lowers success rate.
* Outcome:
  + Success: Player escapes to the previous room.
  + Failure: Monster attacks immediately.
  + Boss fights: Fleeing is not allowed (e.g., Ravenborn, Toybound Horror).
* No weaknesses or resistances.
* All monsters take normal damage from weapons.
* No special conditions for dealing damage.
* Bosses just have higher HP & attack power—no extra mechanics.

## 3.2.3.3. Functional Requirement 3.3 – Fight

ID: FR03

Title: Fight

Description:

- The "Fight" command engages a hostile monster in turn-based combat.

- Damage Calculation:

Damage = Player ATK - Monster DEF (Minimum 1 Damage)

- Critical Hits: 10% chance to deal 1.5x normal damage.

## 3.2.3.4. Functional Requirement 3.4 – Talk

ID: FR04

Title: Talk

Description:

- The "Talk" command allows interaction with non-hostile or sentient monsters.

- Some monsters provide lore, hints, or story elements if the player interacts correctly.

- Examples:

- "The Hollow Child": Speaking with him may reveal a clue

- "The Reflection Phantom": May swap places with the player if spoken to.

**3.2.4 Feature 4: Navigation**

3.2.4.1. Functional requirement 4.1 - **Jose**

ID: FR25

TITLE: Move Between Rooms

DESC: The player should be able to navigate between rooms using directional commands (e.g., “Go North,” “Go South”) to explore the manor.

**3.2.5 Feature 5: Player**

3.2.5.1. Functional requirement 5.1 - **Jose**

ID: FR26

TITLE: Access Inventory

DESC: The player should be able to open their inventory using the command "Open Inventory" to view collected items. From the inventory, the player can check item descriptions, equip or unequip weapons, use consumable items like the Healing Green Apple or Chewing Tobacco, and drop unwanted items if allowed. Commands include "Check [Item Name]," "Equip [Item Name]," "Use [Item Name]," and "Drop [Item Name]" to interact with collected items. If the player tries to pick up an item when their inventory is full, they will receive a message stating, "Your inventory is full! Drop an item to make space." The player must use the "Drop [Item Name]" command to remove an item before picking up a new one.

**3.2.6 Feature 6: Help**

3.2.6.1. Functional requirement 6.1 - **Jose**

ID: FR27

TITLE: Request a List of Commands

DESC: The player should be able to type “Help” to receive a list of all available game commands.

## 3.3 Software System Attributes

### 3.3.1 Reliability (Razan)

The system should be designed in a way that it can easily be transferred and run on different platforms, including various operating systems.

### 3.3.2 Availability (Razan)

The system should ensure 95% uptime, allowing players to access and play the game with minimal interruptions, without crashes or major bugs.

### 3.3.3 Security (Razan)

The system should have basic security measures to prevent unauthorized access and protect player data.

### 3.3.4 Maintainability (Justin)

The game will start when the user presses the play program button. The game should function using only typed in commands upon start. There will not be any instance of a user clicking on something for the game to continue. The game will end when the user completes the game, dies through playthrough, or if user manually clicks to end the program.

## 3.4 Logical Database Requirements (Justin)

The only database that will be used for information tracking is Java built-in memory. If a user plays the game all the information in the current playthrough will be saved in the java memory. Once the game is over or ended all progress is lost.

## 3.5 Other Requirements (Shayla)

### 3.5.1 Usability

3.5.1.1 Non-Functional requirement

TITLE: Help Command

DESC: When the player enters the game, they should be acknowledged that at any time of the game, if they need help, they can type “Help” to show a list of all the commands they can use to proceed.

3.5.1.2 Non-Functional requirement

TITLE: User Input Validation

DESC: The game should handle all invalid inputs. The game should not crash when there is an invalid input. They should be given feedback of it being invalid and the choice to try again.

3.5.1.3 Non-Functional requirement

TITLE: User Interface

DESC: Due to the nature that the game is text-based, the interface should be easy to read. There should proper indentations in the outputted text throughout the continuation of the game.