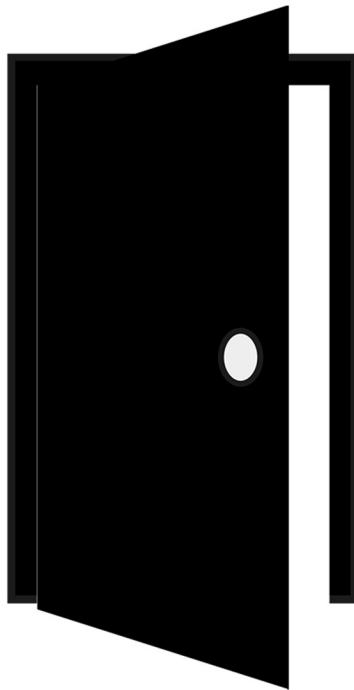


**University of South Carolina**

**Escape Room Clientele Submission**

Software Requirements Specification



Team Rotten Apple

Chancellor Hanner, Darius Washington, Landon Searight, and Aydin Escamilla

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## 1. Introduction

### Purpose

Escape rooms have become a popular form of entertainment that brings groups together through immersive stories and puzzle solving as a team. However, traditional escape rooms are limited by physical location, scheduling, and availability. To overcome these barriers, we are proposing a digital escape room platform that gives the same experience but entirely accessible online.

Our goal is bringing the physical love of escape rooms to the digital space, for users to enjoy solo or as a group, with little to none of the difficulty found in partaking in a traditional escape room. To further this idea, while most online escape room games need an email to start, we're streamlining the process to hop right in and start while maintaining the addicting atmosphere that we've come to love from established escape rooms. With these advancements in mind, we hope to deliver all the joy of an escape room with less or none of the hassle, expanding access to anyone with an internet-facing device.

### Scope

This document is to cover:

- An overview of the purpose of the project
- An outline for potential users and stakeholders in the project
- Limitations or constraints that are expected to be encountered or actively dealt with during development
- An overarching description of the functionality and business uses
- A list of requirements, both functional and non-functional
- And the competitive analysis as carried out by developer

## 2. Stakeholders

- End-User
  - Client
  - Customer
- Development Team

- Developer(s)
- Project Manager
- Graphic Designer
- Fiction Writer
- Investors

## AMY PERRY: YOUNG USER LOOKING FOR CHALLENGING FUN

### PROFILE


Gender : Female

Age : 18

Education : High School Diploma

Occupation : Barista

Character : Chronically Online



### BIOGRAPHY

Amy is a recent high school graduate who loves doing things in her hometown. Amy loves social media, hanging out with friends, and trying new experiences. Amy and her friends love trying new things in her town and recording themselves along the way. She's constantly referring to TikTok sounds or watching her favorite streamers play games. She's interested in a couple of schools in South Carolina but hasn't made up her mind yet. She wants to major in Business Marketing. All her friends have different schools in mind, and each college town has different things to do.

### MOTIVATIONS

Amy is motivated to experience everything she can whether that's in person or online. Her family and friends motivate her to continue her education. Having a good time is important to her. She believes being challenged pushes her to her best.

### GOALS

- Get her Business Marketing Degree
- Spend time with family and friends
- Don't miss out on fun things to do
- Don't back down from a challenge

### FRUSTRATIONS

- Having repetitive task
- Not finding a fun experience for all her friends
- Not being able to solve a problem
- When a teacher doesn't spell out what they want

### PERSONALITY

Introvert ————— Extrovert

Thinking ————— Feeling

Judging ————— Perceiving

Sensing ————— Intuition

### TECHNOLOGY

Software

Social Media

Mobile App

### BRANDS

ROBLOX

TikTok Instagram Twitch

## BARBARA ANN: MOM WANTING TO INCLUDE THE WHOLE FAMILY

### PROFILE

Gender : Female  
 Age : 42  
 Education : Bachelors Degree  
 Occupation : Nurse  
 Character : Overbearing Mom



### BIOGRAPHY

Barbara is your typical suburban mom and an amazing worker in the medical field. She loves to create family memories and experiences for the family. In her free time, she likes to read romance and murder novels. She stays to herself but has a few besties she spends time with weekly. She stays in Florida, so they get a lot of weather where they have to stay inside.

### MOTIVATIONS

Being a good mother to her 3 kids. Finding new activities for the whole family to do. Helping patients with their problems whether physical or mental. Finishing a book so she can find another one.

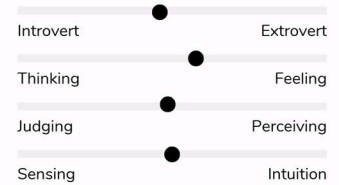
### GOALS

- Get all kids through school
- Keeping the family connected
- Convince her husband build a bird house with her
- Plan the bestfriend activity for the week

### FRUSTRATIONS

- Kids not being engaged with the family
- Husband not wanting to go out
- Being told she can't help all her patients
- Her bestfriends can't agree on what activity to do

### PERSONALITY



### TECHNOLOGY



### BRANDS



## FRANK SMITH: THE GUY WHO LOVES A GOOD CHALLENGE

### PROFILE

Gender : Male  
 Age : 32  
 Education : Associates Degree  
 Occupation : IT  
 Character : Reddit Guy that thinks he knows everything



### BIOGRAPHY

Frank is the guy you call when you have a problem; sometimes, you don't want to call him. He likes spending time with his girlfriend and going camping. When he's not at work or replying to you on Reddit, he's on Elden Ring on his sixth character. He enjoys spending time with his buddies on Discord, and they're always looking for something fun and funny online to do.

### MOTIVATIONS

His girlfriend motivates him every day to get up for work and consider other people. His work motivates him to constantly research new technology. His friends have him constantly looking for a meme to send to the group chat, to have a good laugh.

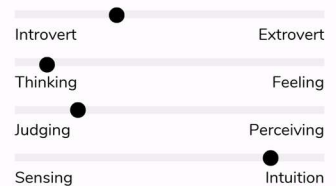
### GOALS

- Convince his colleagues VIM is better than Nano
- Collect all riddler trophies in Batman Arkham Asylum
- Learn React
- Figure out how to set up his new tent

### FRUSTRATIONS

- Pointers in C++
- People asking the same questions over and over again
- Girlfriend asking him to shower
- Being ragebaited by Tommy

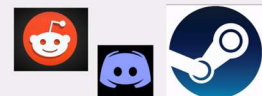
### PERSONALITY



### TECHNOLOGY



### BRANDS



## 3. Constraints

### Monetary Constraints

- This project is to be completed with \$0 of provided funding – any expense is to be out of the developer's pocket

#### Logistical Constraints

- This project is to be able to accommodate a user as would be considered proper by the client
- This project is to be completed within the semester, with a more focused timeline provided by the client

#### Technical Constraints

- This project is to be coded in the Java programming language

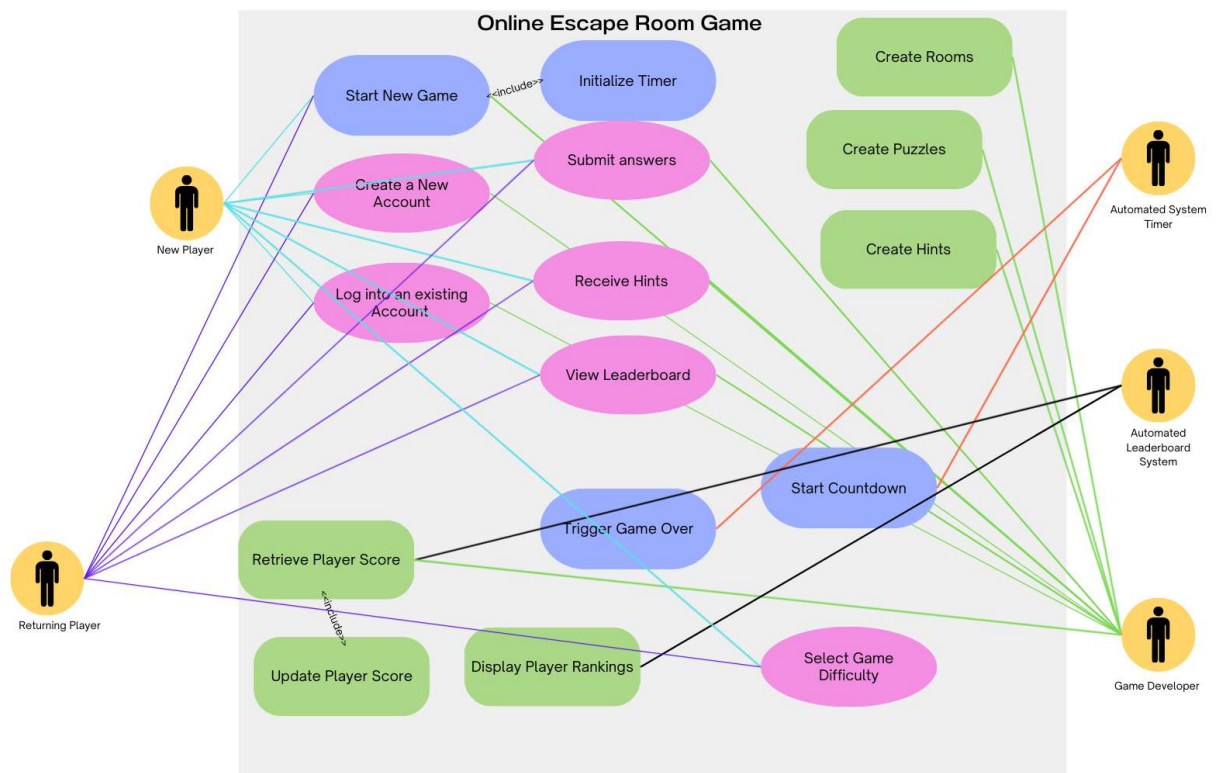
### 4. Overall Description

The escape room platform will provide an accessible and engaging digital alternative to traditional, in-person escape rooms. As mentioned earlier, a part of our app will be different compared to other online escape rooms, streamlining the process of signing up entails that the user will not be required to use their email in order to play our escape room. This falls in line with the general goal of the digital escape room, which is to eliminate issues that prevent real-life escape rooms from being chosen for group settings. Players will be able to enter a name and immediately participate.

The application will still seek to implement every facet that would define your typical escape room: narratives, puzzles, and collaborative problem-solving. Users will have the flexibility to play individually or as part of a group, similar to the teamwork aspect of physical escape rooms while remaining entirely digital.

The application, in essence, will attempt to be everything that a real-life escape room is, with the caveat that it will remain entirely digital, bringing accessibility, simplicity, and entertainment not barred by logistical difficulties.

### 5. Business Use Cases



## 6. Functional Requirements

<https://docs.google.com/spreadsheets/d/1eMzgFh5yh8efD0QAe1deLhkwb9oNVtgsdkWxU8LU/Lu0/edit?usp=sharing>

## 7. Non-Functional Requirements

- Look and Feel Requirements
  - The user interface of the system shall be implemented in a way for the beginner users to understand what they are looking at. It will be visually appealing enough for the user to be comfortable with the duration spent on the product.
- Usability Requirements
  - The system shall be used by users with a wide range of capabilities, with little to no barrier of entry – however, it is not geared specifically to be accessible to the less fortunate.
- Performance Requirements
  - The system shall be able to be played live on any device that maintains a graphical interface of some kind, with little to no requirements in terms of processing power.

- Maintainability and support requirements
  - The system shall be able to run on Window, Linux, and Mac systems, with other OS currently pending confirmation.
- Security requirements
  - The system does not take information from the user in any fashion except that which the user consents to be public (i.e., the leaderboard); however, the system will remain secure such that all participants will not face security concerns coming from within the system itself.
- Legal Requirements
  - The system shall comply with all overseeing and appropriate enforcements of law, to include federal, state, and local legislature.

## 8. Definitions and Acronyms

- End-User
  - The end-user is the individual who will end up using the product, partaking in the published edition of the digital escape room
- Client
  - The client is who the development team is under orders from, and is to be consulted when looking to dial in most specifications
- Development Team/Developers
  - Team Rotten Apple, to include Chance, Landon, Darius, and Aydin, the developers of the product
- Digital Escape Room
  - An experience in which a user goes through a series of puzzles and potentially story beats to reach an end goal, in this case completely digitally
- Leaderboard
  - A ranking of user performance, typically from highest to lowest up until a certain point, and usually measured in some kind of score
- OS

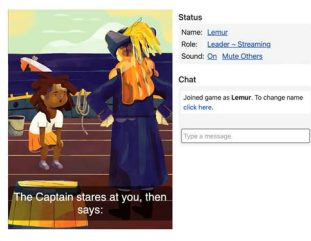


- Operating system; the foundational system a device runs on, including PC (Mac, Linux, Windows) and mobile (iOS, Android)
- Federal, State, and Local Legislature
  - With a locality of Columbia, South Carolina within the United States; to include copyright and data privacy

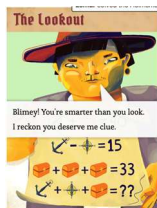
## 9. Competitive Analysis

### Pirate Panic

Intro: This escape room began with a short introduction explaining the story of the escape room and what the objective is.



Gameplay: This game offers the player 4 location options, each offering the ability to speak to the crewmember in that location to obtain a clue hinting toward the location of the treasure.



Gameplay: Each crewmember requires you solve their riddle, then offers you their clue. You must collect each crewmembers clue before going to the captain and being allowed to enter the location of the treasure.



## Escape the Tomb

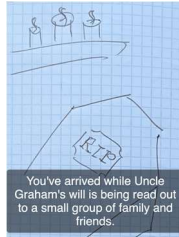


Intro: This escape room also begins with a short introduction explaining the story and objective before allowing the user to begin playing.

Gameplay: Escape the tomb offers the user 2 options; "unlock door" and "next". The unlock door option is used to open the menu which allows the user to solve the doors riddle, and the next option is used to move to the next riddle. The user can solve any riddle at any time but all doors must be completed before the user is allowed to finish the escape room.



## Bitcoin Break-In



Intro: This online escape starts with an introduction detailing the plot and what your goal will be to complete the story

Gameplay: In Bitcoin Break-in the user has the option to start on any lock of their choosing but must unlock all 3 locks by the end of the game. Opening a lock opens a drawer which contains more clues and puzzles. The user must finish all puzzles to complete the game.



	Pirate Panic	Escape The Tomb	Bitcoin Break-In
Non-Linear	Yes	Yes	Yes
Introduction	Yes	Yes	Yes
Multiple Characters	Yes	No	No
Must Solve All Riddles	Yes	Yes	Yes
Multiple Locations	Yes	Yes	No

## Summary

Through this analysis, we have identified that digital escape rooms consistently rely on a few fundamental components that shape the overall experience. Each example we reviewed included an introduction that clearly outlined the storyline and player objectives, doing so in a way that was both engaging and easy to understand. In addition, every escape room incorporated a series of riddles, all of which had to be solved before the user could successfully complete the game. These elements stand out as critical to the success of an online escape room. Therefore, it is clear that any effective design in this space must prioritize a compelling

introduction alongside well-crafted, sequential riddles, ensuring users remain both challenged and immersed throughout the experience.

## 10. References

- Requirements Spreadsheet and Document Templates as provided by the Client (M(r)s. Portia Plante)

## 11. Appendices

- N/A to mention at this time