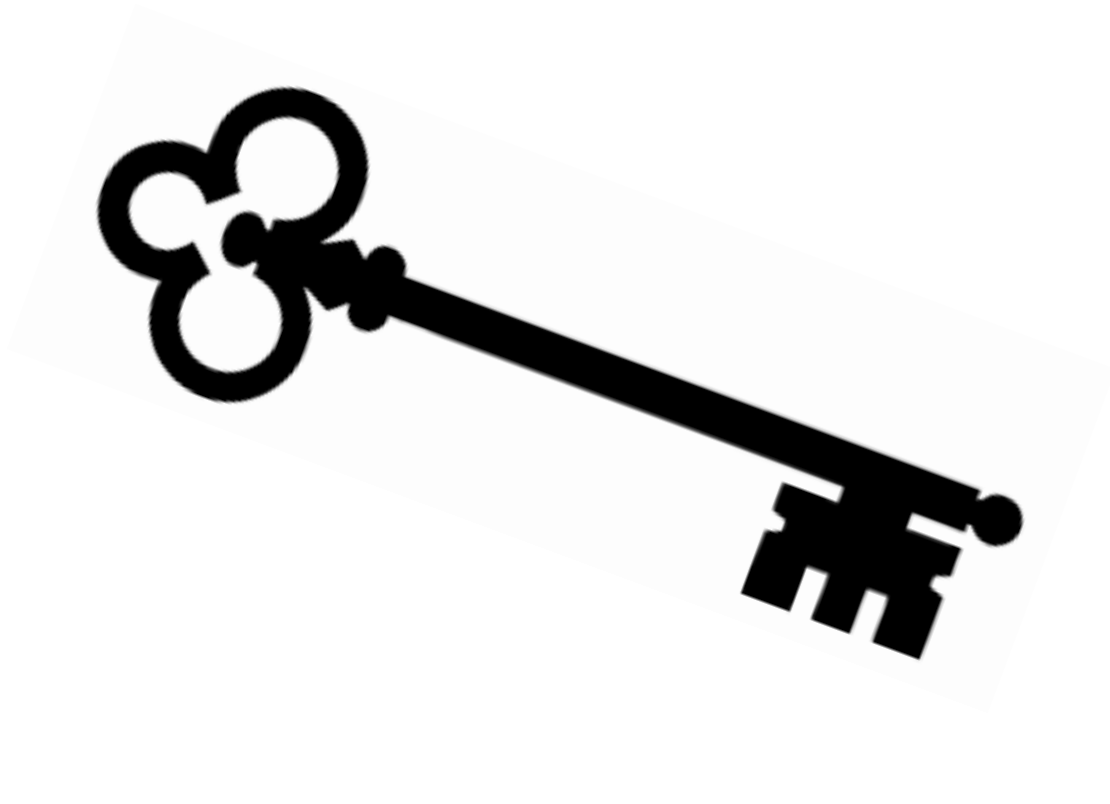


# Virtual Escape Room

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CSCE247: Software Engineering

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# Introduction

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Many people struggle to find a fun, interactive environment over the web. Typically many people can't find something cheap or truly fun. This is why we are creating a virtual escape room. It will be an enjoyable experience people can do alone or with their friends. It is free which is much cheaper than going to the movies in this day and age and interactive so you can work together with your team to complete all of the puzzles and riddles. Coming up on Fall we thought a Halloween theme would be the perfect piece to really get people into the Fall mood. Our escape room will have an easy to use interface to allow people to easily navigate the room and puzzles. It will have a fun storyline to draw all of the users in and provide them with an enjoyable experience.

# Stakeholders

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- Recent college/post grad aged students
  - Needing to save money
  - Wanting to have fun with friends
  - Wanting a fun storyline

# Olivia Ware



Age: 24

Occupation: Accountant

Status: Single

Bio: Olivia just graduated college and moved to a new city for her accounting job. She just made some new friends and is wondering what a fun night-in activity would be for them

Why are they using this escape room?

Olivia is using this virtual escape room as a good way to get to know her friends better. They are all post grad and haven't completely gotten on their feet yet, so they need something cheap. For them, this is a better option than a movie because they will have to work together to come up with ideas to escape.

Goals:

Olivia wants something that is easy to use, cheap, and enjoyable for her and her friends. She needs to be up early for work in the morning so it can't take too long.

# Michael Jackson



Age: 22

Occupation: Unemployed

Status: Single

Bio: Michael is a Halloween fanatic, despite being named after the artist. He legally changed his middle name to "Myers". It's that serious to him.

Why are they using this escape room?

Michael's favorite time of year, Halloween, is right around the corner, but he's broke. Fresh out of college, he's still job hunting. Because of this, he's looking for an inexpensive way to have fun with his friends on Halloween.

Goals:

Michael wants to have fun with a Halloween/Horror themed online escape room. He wants to be able to play with his friends but also alone if need be.

# Jacob Williams



Age: 24

Occupation: SOC Analyst

Status: Single

Bio: Jacob's busy schedule has made it difficult to hangout with friends. He's interested in easy to schedule fun with his friends.

Why are they using this escape room?

Jacob is using this escape room as a good way to hangout with his friends despite tough schedules, and a Halloween themed escape room blends his love for solving puzzles and the Halloween season into one.

Goals:

Jacob wants something that will be easy to access for him and his friends, that won't take too long to make scheduling easier for everyone.

# Constraints

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- Time Constraints
  - We only have until the end of the semester to get this completed
  - We only meet in class twice a week
  - Every group shares the same “client” which might make communication difficult.
- Technical Constraints
  - We are only allowed to code in java
- Monetary Constraints
  - The budget for this project is \$0

## Overall Description

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This app must be accessible over the web. Users will be able to play an interactive game with puzzles. The user will have a time limit to complete the room in. The app will have a fun and exciting theme.



# Competitive Analysis

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	TRACE by colorbomb
Strengths	<ul style="list-style-type: none"><li>• Well thought out puzzles</li><li>• Automatic Removal of inventory items after use</li><li>• Camera to record important screens and notes to easily look through these screenshots</li><li>• Simple instructions</li><li>• Divided into palatable sections</li><li>• Unable to interact with irrelevant items</li></ul>
Weaknesses	<ul style="list-style-type: none"><li>• Point and click only can be tiresome for the wrists</li><li>• Lengthy, easy to tire out before completion</li><li>• Odd note management, unclear how certain actions will function</li><li>• Repetitive puzzle structure</li><li>• Not supported on mobile</li><li>• No notable story</li></ul>

	The Hogwarts Escape
Strengths	<ul style="list-style-type: none"> <li>• Well thought out puzzles</li> <li>• Entertaining storyline</li> <li>• Accessible over the phone and computer</li> <li>• Not necessarily a strength or weakness but it wasn't a "room" more just a bunch of puzzles one after another</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Although the puzzles were well thought out some were confusing to understand</li> <li>• Repetitive puzzles</li> <li>• Very long</li> <li>• No time limit</li> </ul>

	The Thief in the Night
Strengths	<ul style="list-style-type: none"> <li>• Not too easy but not too hard</li> <li>• Gave plenty of hints</li> <li>• Gave you the answer if you thought it was too hard</li> <li>• Not very long, 10-15 minutes max</li> <li>• Saves your progress, so you don't have to reanswer question</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• A lot of clicking, moving around the mouse</li> <li>• Might be too short for people playing in groups</li> <li>• Harder to play on mobile</li> <li>• Not story heavy</li> </ul>

## Summary:

Features	Rooms
Hint System	The Thief in the Night
Mobile accessibility	The Thief in the Night(partial), The Hogwarts Escape
Defined storyline	The Hogwarts Escape
Notes system	TRACE
Point and click controls	TRACE, The Thief in the Night
Progress saving	The Thief in the Night
Time Limit	None
Division into sections	All

Based on the analyses performed, important considerations for this project include:

- Comfortable controls

- Timespan that isn't excessively short or long (ex: <15 minutes or >90 minutes)
- Hint system to lessen frustration over difficult puzzles
- Usage of a defined storyline
- Potential inclusion of a time limit
- Palatable division of puzzles
- Potential usage of notes system for longer/more interconnected puzzles

## Functional Requirements

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[Link to requirements spreadsheet](#)