CPSC 329 Project Group 44 Members and Roles:

- Eric Wu (30055876) - Developer, Code Reviewer/Tester, Puzzle Writer
- Alex Tanasescu (30041538) - Project Manager, Developer, Puzzle Writer
- Mohammad Fahd (30088554) - Lead Storyboarder/Writer, Puzzle Writer, Developer
- Harsweet Singh (30117846) - Code reviewer/tester, Storyboarder/Writer, Developer, Puzzle Writer

Features:

- Multiple types of questions
  - True or false
  - Ranking
  - Fill in the blank
  - Multiple Choice
  - Matching
- Point system
- Storyline (Escape room styled)
- First version - text based / second versions (if we have time) interactive/GUI
- Java Language
- Timer (potentially) + increase points if time left
- Each room has a specific topic
- Hints (Riddles/Clues/Answer itself)

Target Audience:

Teenagers who are beginning to get involved in the internet are the primary demographic of our program. This program is aimed at teaching good habits for online security and maintaining a sense of privacy so that users are less susceptible to common techniques that would leave their accounts and data vulnerable.

Storyline:

You wake up one night in a room in a house. You try to open the door. It's locked. You notice a sign saying you are locked in a house and that you have to exit multiple rooms before you exit the house to safety. There are certain clues left around the room that might help you get out of the room. You look around and notice there's a clock ticking down. You read a little note that says the time left is how much longer you have to live unless you manage to get out of the room.

Project Proposal:

An interactive text based (at first and GUI later if we have time) lock room. The player solves text based questions that relate to the topics we discuss in class. We will try to have as many different types of questions as possible. Questions will gradually become more difficult as the player progresses. Players will answer questions from a specific theme of one room to go to the next. Each room has a set time limit. If players exceed this time limit, they die. If players take less than the time limit any extra time they have left over will get added to their points. And if the

player does not know the answer to a question they can look around the room, to get a potential hint (maybe in the form of a riddle).

Project Timeline:

Week 2: Question Creation Logic complete.

- Should be able to create different types of questions (multiple choice, fill in the blank, matching, etc.) and prompt the user for input
- Error checking to see if input provided works

Week 4: Storyline integrated with questions.

- Should have a story to segue between questions, and should be provided in a digestible format to avoid confusion.

Week 6: User scoring system complete.

- User score and name should be displayed at all times, and the program should have the functionality to store and retrieve top scores from a file.

Week 8: Timer + GUI complete.

- Timer should be implemented to tick down and stop at 0, failing the player.
- Points should be awarded appropriately depending on how much time is left
- Timer should be shown next to player info whenever possible
- GUI should be created to replace text version
- Interactive buttons to provide answers.

Walkthrough:

Explain the purpose of the program. Go over the first “room” - easy difficulty. It will include all types of questions. Show them how to do all the types of questions and what clues to look for. Give a brief description of how the story starts. Explain the scoring system and show how scores are calculated. Each room will be based on difficulty and you can stop after any of the rooms. This way our game will be enjoyable for all audiences of all skill levels. There’s the easy room - which is intended for children and beginners, the medium room which is intended for people who are somewhat familiar with information security, and the hard room which is intended to for security experts and people who know what they’re doing.

Topics that are suitable material for questions/Types of questions:

We decided that these topics are best since everyone can apply them in the real world. We will have 36 questions split into 3 rooms (12 questions per room - this is subject to change later). Each room will have 2 questions from each of the topics listed below. Listed below are also the types of questions each topic has (This is also subject to change later)

- **Malware**
  - What payload the malware has
  - What to do in case of a Virus Attack
  - Choose between 3 different types of programs - 2 of them will be viruses
  - False positive/negative math

- **Cryptography**
  - Morse Code decoding
  - Cipher decoding
  - Code decoding to obtain a password
- **Privacy and Data Security**
  - How the Big Tech might be making off profit by comprising user data
  - Effective ways of protecting user data
  - Certain Privacy terms and conditions of Social media companies that users are generally unaware of
- **Security on Mobile Devices**
  - To check whether a given app really requires the permission it is asking for
  - Possible Data Leakages
  - Two factor authentication
- **Passwords and Authentication**
  - Given a password and determine its level of security
  - Enter a password but it won't take it in unless you guess all of the password requirements
  - Same thing with hashing and salting
- **Scams and Phishing Attacks**
  - Given an email and have to tell if its phishing or not
  - Same with scams
  - Tell us why they’re scams or phishing
  - Input a secret password that maybe has to do with typos found in a phishing email