System Requirements

Specification

The Amazing Trivial Maze

Brought to you by:

**IDK**

Sarah Headley

Giang Bui

Tony Moua

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6. **Introduction**
   1. **Purpose**

The purpose of this document is to provide a detailed description and requirements for the trivial maze software. It will also explain the interactions between user and software.

* 1. **Scope**

The “Trivial Maze” is a software that will allow users to travel through a 2-diminsional maze that contains an entrance (where users starts the game), an exit (where user will win the game when exit point is reached) and rooms containing doors between the entrance and exit where you will have to make your way through by answering questions correctly.

By answering questions correctly the door you have chosen to go through will open. If answered incorrectly the door will lock and user will not be able to open the door again. If all doors that surround the rooms are locked the game will be over. User may back track their way back to previous rooms through the door that was unlocked. Doors will forever stay locked or unlocked depending if the answer is correct or incorrect.

* 1. **Document Conventions**

|  |  |
| --- | --- |
| DB | Database |
| T | True |
| F | False |

**1.4 Major Constraints**

No Major constraints as of now

1. **Overall Description**

**2.1 Product Perspective**

This software will engage the user with choices to transverse through a maze upon answering questions to unlock doors to the next room.

**2.2 Product Functions**

With this software you will choose a level of difficulty, easy, medium and hard. Once difficulty level is chosen, the user will enter a name and the game will begin. You will then be placed in a room; location coordinates will be visible for users, as the starting point. Once door is selected, users will be prompted with a randomized question. If answered correctly then the door will open, if answer incorrectly the door will lock and you may never open it again for the remaining duration of the game. You win when you reached the exit and lose when all doors leading to the exit are locked.

**2.3 User Characteristics**

There are two types of users that can interact with this software: user of the game and administrators.

The user playing the game will only be able to play the game as directed. This means the user has to be able to choose a difficulty level, transverse through the maze, choose doors, answer the question that is randomly given by the questionnaire DB, retrace user path if user decide to go back through the unlocked doors, allow user to win or lose depending on the state of where they are at, as well as allow users to save their game to come back to next time. The save feature will be similar to free-cell or other preloaded games where saving simply saves the instance until the user either decides to start a new game or keep playing.

The administrators will interact with the software directly if software malfunctioning occurs, updates, and do what is necessary for the game to run smooth.

**2.4 Assumptions and Dependencies**

Software is for all ages.

Software question DB will need to be updated every so often for an enjoyable game play.

1. **System Features**

**3.1 Exit the Maze**

**3.1.1** Description and Priority

User must answer the question correct to move around the maze to find the exit. If question is answered incorrectly then door will lock and cannot be open again for the reminder of the game. Priority = High.

**3.1.2** Stimulus/Response

Stimulus: picks a door inside the room

Response: System then connects to database to retrieve a random question (T/F or multiple choice)

Stimulus: Answers question correct.

Response: triggers the door connected to the question to open

Stimulus: Move to next room.

Stimulus: Answers question incorrect.

Response: triggers door to lock for the rest of the game

1. **External Interface Requirement**

**4.1 User Interface**

Once the user has installed the software to their system they will open up the application and should be prompted to choose a difficulty level ranging from easy, medium, and hard. These levels indicate how big the size of the maze will be for the duration of the game. Next the user will begin their quest to find the exit at the end of the maze. To do so the user must travel through the doors towards the exit. Each door will contain a random question, true/false or multiple choice, if answered correctly the door will open and stay that way for the duration of the game. If answered incorrectly the door will lock and the user will be unable to access the door for the duration of the game. If there is at any point no way for the user to make it from their position to the exit, they will lose the game and be prompted with a question asking if they wish to play again. This will be a text based game rather than a GUI based game.

**4.2 Hardware Interface**

No hardware interfaces have been identified

**4.3 Software Interface**

**4.4 Communication Interface**

**4.4.1** Trivia software will connect to the questions DB to get a new question once a door has been triggered.

**4.4.2** Trivia software will save users progress in a user save DB.

1. **Other Nonfunctional Requirements**

**5.1 Safety Requirements**

No safety requirements