# ICS3U Final Project Design Document

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# Overview

This program is a single-player, escape room-type puzzle game. It supports the functionality of a mouse as well as keyboard input, and will allow users to select different challenges on the screen to solve, and will check for their completion before moving onto the next room. It will be used for entertainment purposes.

# User Interface Drawings

Attached on a separate sheet of paper.

# Top-down Design.

The following are the methods that will be written.

public static void drawScreen(int screen)

This method will draw the appropriate screen as specified by the parameter int screen. It will set the background image as specified from an array of Images, as well as drawing out any Strings, or buttons that can be clicked for the challenge as indicated from the parameter (each screen is a different challenge or room with challenges). This method will contain each of the screens throughout the game that need to be drawn.

public static boolean checkRoom(int room)

This method will check whether or not all of the challenges in the room specified by the parameter int room are completed or not.

public static boolean checkChallenge(int room, boolean complete)

This method will check one challenge in the room is complete or not, specified by the parameter int room and boolean complete. It will return the boolean value, which will be stored into an array of booleans.

public static void playerInfo()

This method will be used at the beginning of the game to set the player’s name by prompting for it any obtaining it from the scanner.

# Pseudocode of Main Method

main {

boolean playGame is true

int screen is 0

while playGame is true {

drawScreen screen parameter is passed in

playerInfo- get player’s name

add 1 to screen

while gameFinish is false {

// the following will loop until the game has been cleared

drawScreen- screen parameter is passed in

checkChallenge screen is passed in, boolean from drawScreen is also passed in, returns a boolean, stores boolean into a boolean array

if checkRoom true {

add 1 to screen

drawScreen screen parameter is passed in

// a new room is drawn)

// if the final room is complete, gameFinish is true, game ends

}

else {

drawScreen- screen parameter is passed in

// returns to current room

}

}

}

}