# Dungeon Explorer

# Test Plan

## Team 13

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Legend:

Classification of severity:     S1 -- Critical to the success of the software.

S2 -- Important.

S3 -- Software could function even with defect in it.

## Requirements and test cases:

**1. Register for a new account in the game.**

A. User information 001, Sign up, S1

B. Input a username with length between 4 and 15 characters that does not exist in database. Input a password with length between 4 and 15 characters. Click on "Sign up" button.

C. Username and password should be stored into database. Jump to the main page of game.


A. User information 002, Sign up, S1

B. Input a username with less than 4 characters. Input a password range between 4 to 15 characters. Click on "Sign up" button.

C. Program displays error information next to the username text field.


A. User information 003, Sign up, S1

B. Input a username with more than 15 characters. Input a password range between 4 to 15 characters. Click on "Sign up" button.

C. Program displays error information next to the username text field.


A. User information 004, Sign up, S1

B. Input a username with 3 characters. Input a password range between 4 to 15 characters. Click on "Sign up" button.

C. Program displays error information next to the username text field.

A. User information 005, Sign up, S1

B. Input a username with 16 characters.  Input a password range between 4 to 15 characters. Click on "Sign up" button.

C. Program displays error information next to the username text field.


A. User information 006, Sign up, S1

B. Input a username with length between 4 and 15 characters that does not exist in database.  Input a password with less than 4 characters. Click on "Sign up" button.

C. Program displays error information next to the password text field.


A. User information 007, Sign up, S1

B. Input a username with length between 4 and 15 characters that does not exist in database.  Input a password with more than 15 characters. Click on "Sign up" button.

C. Program displays error information next to the password text field.


A. User information 008, Sign up, S1

B. Input a username with length between 4 and 15 characters that does not exist in database.  Input a password with 3 characters. Click on "Sign up" button.

C. Program displays error information next to the password text field.

A. User information 009, Sign up, S1

B. Input a username with length between 4 and 15 characters that does not exist in database.  Input a password with 16 characters. Click on "Sign up" button.

C. Program displays error information next to the password text field.


A. User information 010, Sign up, S1

B. Input username or password with special characters such as space, %, * . Click on "Sign up" button.

C. Program displays error information next to the invalid text field.


A. User information 011, Sign up, S1

B. Input a username that already exists in the database. Click on "Sign up" button.

C. Program displays error information next to the username text field.


**2. Login to the game.**

A. User information 012, Login, S1

B. Input correct username and password, click on "Login" button.

C. Jump into the main page of game.


A. User information 013, Login, S1

B. Input username with incorrect password, click on "Login" button.

C. Remind user that password is incorrect.

A. User information 014, Login, S1

B. Input a username that does not exist in the database, click on "Login" button

C. Remind user that username does not exist.

**3. Test main menu works.**

A. Main menu 001, Exit Button, S3

B. Login to the main screen. Click on "Exit" button.

C. Game closes.

A. Main menu 002, Switch User Button, S3

B. Login to the main screen. Click on "Switch User" button.

C. Jump to the login page.

A. Main menu 003, Help Button, S3

B. Login to the main screen. Click on "Help" button.

C. Display help information like game shortcuts, designer contact information.

A. Main menu 004, Difficulty Level, S2

B. Login to the main screen. Select level: "easy", "medium" or "hard" by clicking on the corresponding

radio button. Click on "play" button.

C. Correct game with the specified level should appear.


A. Main menu 005, Play Button, S1

B. Login to the main screen. Select a difficulty level. Click on "Play" button.

C. Jump to game screen.


A. Main menu 006, Scoreboard, S3

B. Login to the main page. Select a difficulty level. Play the game 0 times. Go to main page.

C. Verify that correct scores appear on the scoreboard.


A. Main menu 007, Scoreboard, S3

B. Login to the main page. Select a difficulty level. Play the game 1-5 times. Go to main page.

C. Verify that correct scores appear on the scoreboard.


A. Main menu 008, Scoreboard, S3

B.  Login to the main page. Select a difficulty level. Play the game 6 times. Go to main page.

C. Correct five scores appears in scoreboard.


4. Test the settings while playing game.

A. Menu Bar 001, Restart, S3

B. Go to game screen, click on "Restart" option.

C. The current game progress should be discarded. Start a new game with the same level.


A. Menu Bar 002, Exit, S3

B. Go to game screen, click on "Exit" option.

C. Program should exit.


A. Menu Bar 003, Back, S3

B. Go to game screen, click on "Back" option.

C. Jump to main menu.


A. Menu Bar 004, Scores, S3

B. Go to game screen, click on "Scores" button.

C. Program will display scoreboard.


**4. The game display will pass data about the location of character model and the engine will determine how the character model interacts with the environment.**

A. Model Interaction 001, Wall Collision, S1

B. Move the character model to a randomly chosen wall unit in first level, repeat for remaining levels.

C. The character model will not move into or pass through the wall.


A. Model Interaction 002, Door Entry, S1

B. Move the character model to a randomly chosen door in first level, repeat for remaining levels.

C. The character model will enter the door to reach other side of the dungeon.


A. Model Interaction 003, Hazard Collision, S1

B. Move the character model to a randomly chosen hazard unit in first level, repeat for remaining levels.

C. The character model will lose a life, and game should be restarted.


A. Model Interaction 004, Hazard Collision, S1

B. Move the character model to a randomly chosen hazard unit in first level with one life left, repeat for remaining levels.

C. A pop up message - "Game Over!" with the total score will appear.


A. Model Interaction 005, Enemy Collision, S1

B. Move the character model to a randomly chosen enemy unit in first level, repeat for remaining levels.

C. The character model will lose a life, and game should be restarted.


A. Model Interaction 006, Enemy Collision, S1

B. Move the character model to a randomly chosen enemy unit in first level with one life left, repeat for remaining levels.

C. A pop up message - "Game Over!" with the total score will appear.

A. Model Interaction 007, Access to Next Level, S1

B. Move the character model to exit of first level, repeat for remaining levels except last level.

C. Total score increases accordingly, and game continues to the next level.


A. Model Interaction 008, Game Completion, S2

B. Move the character model to exit of last level.

C. The game ends, and the user is congratulated for his or her game completion with a display of the

final score. He or she is then directed to the main menu.


A. Model Interaction 009, Level Entrance, S1

B. Move the character model to entrance of first level, repeat for remaining levels.

C. Everything should remain unchanged and the character model should not be directed to previous

level.


A. Model Interaction 010, Score Item, S1

B. Move the character model to the score item of first level, repeat for remaining levels.

C.The score item will disappear. The character model get some bonus.


A. Model Interaction 011, Shortcut Door, S1

B. Move the character model to the door of the first level, repeat for remaining levels.

C. The door will disappear. The character model loses some scores.

**5. Character model will be controlled properly by using the keyboard.**

A. Keyboard 001, Arrow Key, S1

B. Push on left/right/up/down key in a game.

C. Character should move to the left/right/up/down. Character should not go out of the game board.


A. Keyboard 002, Arrow Key, S1

B. Push on left/right/up/down key continuously in a game.

C. Character should move continuously to the left/right/up/down until a barrier is encountered.

Character should not go out of the game board.


A. Keyboard 003, Undefined Keys, S2

B. Click on each undefined key.

C. Character should remain at the same spot.


**6. The total score will be renewed correctly after each level.**

A. Score 001, Total Score, S1

B. Click on the "Retry" button to restart the level.

C. The total score should remain the same.


A. Score 002, Total Score, S1

B. Successfully completed level 1 and level 2, repeat for remaining levels

C. The total score should get updated from level 1 to level 2, from level 2 to level 3, and so on.


A. Score 003, Total Score, S2

B. Go to game screen, die and lose all the lives on a level above 2.

C. The score will remain the same as the previous level before death.


A. Score 004, Total Score, S2

B. Pass the first level with 3 lives, pass the first level again with 2 lives, repeat for remaining levels.

C. The score should be higher when beaten the level with more lives.


A. Score 005, Total Score, S2

B. Pass the first level without opening any door, pass the first level again with opening doors,  repeat for remaining levels.

C. The score for not opening any doors should be higher than the one with opening doors.


A. Score 006, Total Score, S2

B. Pass the first level by opening a door, pass the first level again by opening 2 doors, repeat for remaining levels.

C. The score of opening a door should be higher than the score of opening 2 doors.

A. Score 007, Total Score, S2

B. Go to game screen. Pick up a treasure at a particular level.

C. The score will be updated immediately.


A. Score 008, Total Score Based On Difficulty, S2

B. Complete first level on easy difficulty and exit the game (so the score can be recorded), repeat for medium and hard difficulties.

C. The score should be higher for a higher difficulty.


A. Score 009, Overall Score List, S2

B. Successfully beat one of the top five overall scores.

C. The top five overall score list should be updated to display the score and have it in the proper position.


A. Score 010, Personal Score List, S2

B. Successfully beat one of the top five personal scores.

C. The top five personal score list should be updated to display the score and have it in the proper position.


A. Score 011, Overall and Personal Score List, S2

B. Successfully beat into the top five overall scores and top five personal scores at the same time.

C. Both score list should be updated to display the score and have it in the proper position.

A. Score 012, Correct Personal Score List, S2

B. Sign into a user's account to have a view of the personal score list, log out from the account, and sign into another user's account to have a view of the personal score list.

C. The two personal score lists should be different from each other. But top score lists should be the same.

**7. Movement speed of enemies and character should vary depending on difficulty.**

A. Difficulty 001, Movement Speed of Character Model, S2

B. Play the first level on easy difficulty, play the first level on medium difficulty, play the first level on hard difficulty, repeat for remaining levels.

C. The character model should move slower as the difficulty increases.

A. Difficulty 002, Movement Speed of Enemies, S2

B. Play the first level on easy difficulty, play the first level on medium difficulty, play the first level on hard difficulty, repeat for remaining levels.

C. The enemies should move faster as the difficulty increases.