

CRC Design Android Maze

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1. AMazeActivity.java
 - a. Responsibilities
 - i. Display a title screen to the user
 - ii. Allow the user to select a skill level and maze generation algorithm, and give the user a button to start maze generation.
 - iii. Transition to GeneratingActivity.java on start button press
 - b. Collaborators
 - i. GeneratingActivity.java
2. GeneratingActivity.java
 - a. Responsibilities
 - i. Update the user on the progress of the maze generation
 - ii. Allow the user to choose starting settings for the shown solution, shown walls, and shown maze boundaries.
 - iii. Allow the user to choose a driver algorithm or a manual driver.
 - iv. Once the maze has finished generating, allow the user to move into PlayActivity.java and pass the user's play preferences to PlayActivity.java
 - v. Return to AMazeActivity.java if the user presses the back button.
 - b. Collaborators
 - i. AMazeActivity.java
 - ii. PlayActivity.java
3. PlayActivity.java
 - a. Responsibilities
 - i. Display the maze graphics.
 - ii. Allow the user to toggle the shown solution, shown walls, and shown maze boundaries.
 - iii. Allow the user to traverse the maze with arrow keys if the robot is in Manual mode.
 - iv. Allow the user to pause the maze traversal if the robot is not in manual mode.
 - v. If the robot reaches the exit or fails to complete the maze, move to the finish screen and pass the robot's path length, remaining battery level, and terminating condition.
 - vi. Return to AMazeActivity.java if the back button is pressed.
 - b. Collaborators
 - i. AMazeActivity.java
 - ii. GeneratingActivity.java
 - iii. FinishActivity.java
4. FinishActivity.java
 - a. Responsibilities

- i. Inform the user of the robot's terminating condition, path length, and remaining battery level, as well as how to start a new maze.
 - ii. Offer the user the option to save the maze to file.
 - iii. Return to AMazeActivity if the back button is pressed.
- b. Collaborators
 - i. PlayActivity.java
 - ii. AMazeActivity.java