

# Major Project – AI Puzzle Solving Requirements

## Functional Requirements

### FR1 Application start

When the application starts up, it will direct the user to the main screen - the “Maze” screen. It allows the user to immediately launch the solver with default settings. These are maze size of 20 by 30 units and Breadth-first search algorithm.

### FR2 Maze screen

This screen contains the maze representation. It allows the user to use the functionality of the app.

### FR3 Settings screen

This screen contains the maze solver settings. It allows the user to change the algorithm that will be used to solve the labyrinth, as well as choose its size.

### FR4 Screen navigation

The user can navigate between two screens: the “Maze” and “Settings” screens.

### FR5 Solving start

To start the algorithm the user must press the appropriate button on the main screen. It will start the process of solving and visualizing the progress.

### FR6 Pause functionality

The user is allowed to pause the maze-solving process at any point of its runtime using the button. It then may be resumed or cancelled completely at which point it will be possible to start it again.

### FR7 Solving finished

It should be appropriately reflected on the screen that solving action is finished and the user is allowed to restart it without using the pause functionality mentioned in **FR6**.

### FR8 Handling navigation during algorithm runtime

At any point of the algorithm runtime, the user is allowed to switch screens. It will result in lost progress.