



2- Player Maze Game

Mayank Kumar (2017CS10348)

Sahil Sood (1028CS10379)

Contents



Build



Instructions



Game Rules

Build and Run



Create “build” directory in the root directory of the game



Change current working directory to “build”

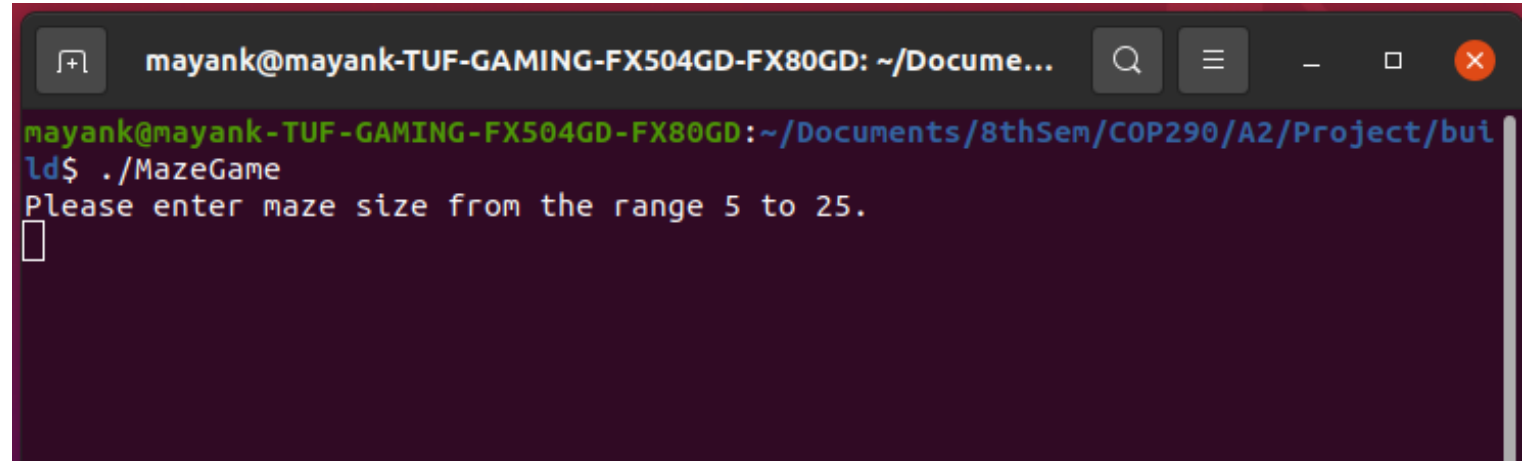


Use Cmake and make to build the game and generate required executable files



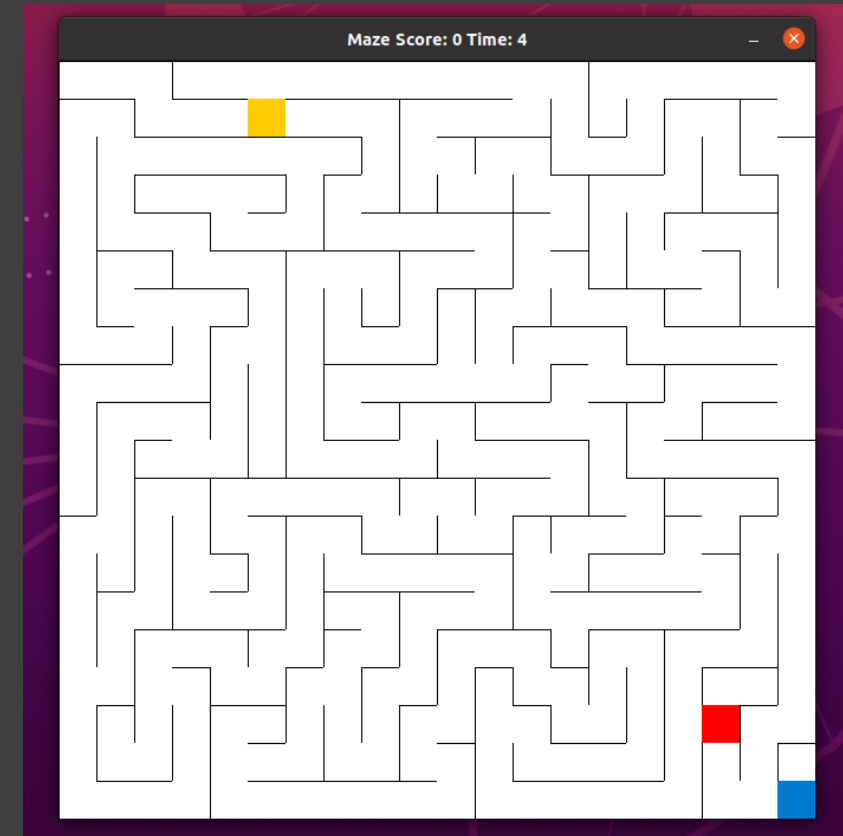
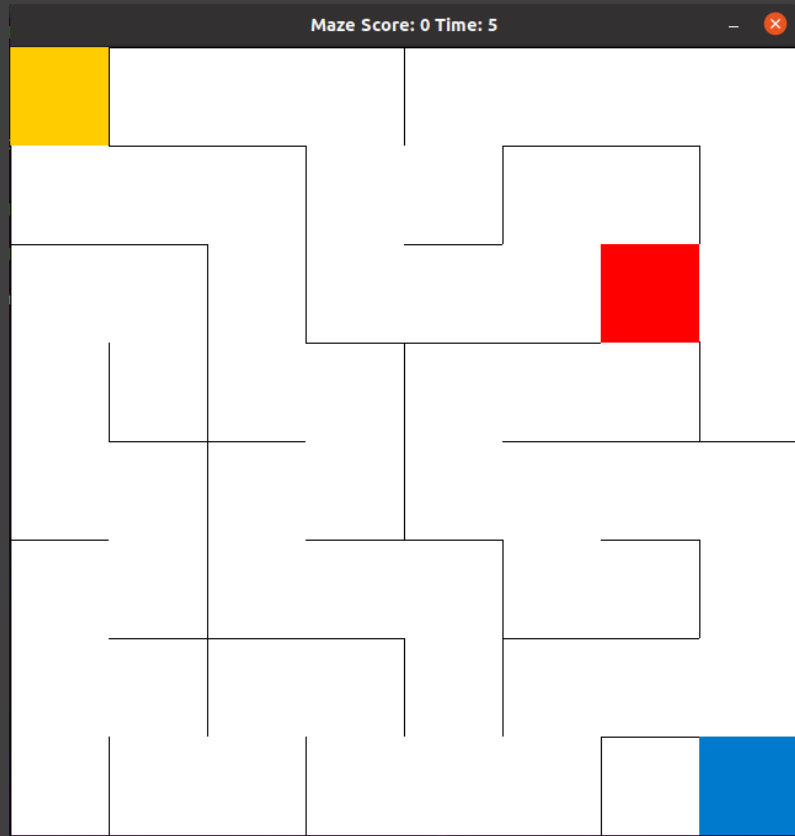
Detailed instructions on performing these steps in ReadMe file

Game Instructions

A terminal window with a dark background and light-colored text. The window title bar shows the user 'mayank' on a machine named 'mayank-TUF-GAMING-FX504GD-FX80GD' in the directory '~/Docume...'. The terminal content shows the user running './MazeGame' in the directory '~/Documents/8thSem/COP290/A2/Project/bui'. The program prompts the user to 'Please enter maze size from the range 5 to 25.' and a cursor is visible on the line below the prompt.

```
mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Docume...
mayank@mayank-TUF-GAMING-FX504GD-FX80GD:~/Documents/8thSem/COP290/A2/Project/bui
ld$ ./MazeGame
Please enter maze size from the range 5 to 25.
█
```

- On running the executable file(MazeGame) for the game, you will be prompted to enter an integer value for defining the size of the maze from a given range

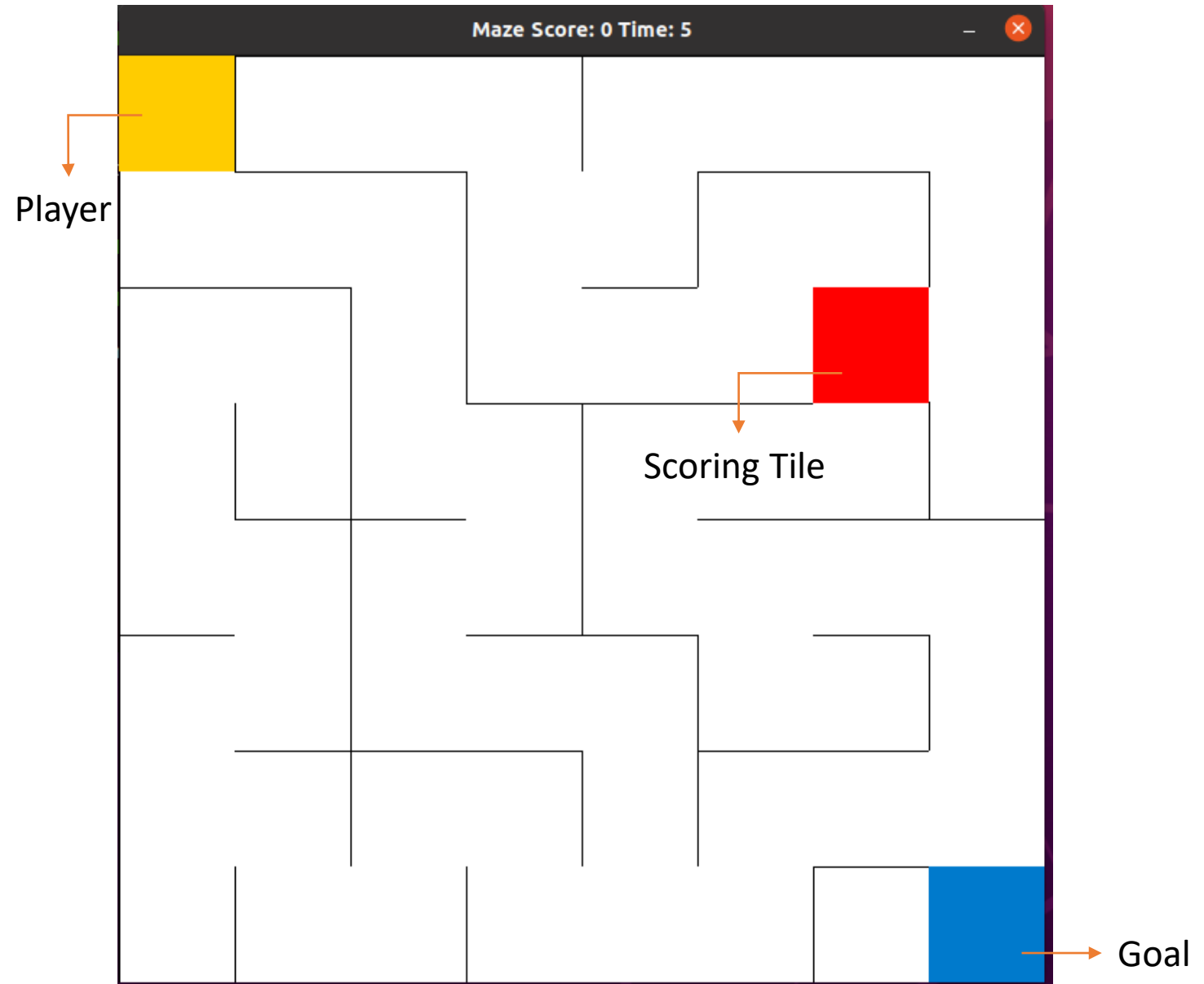


Instructions

- After providing the size of the maze, a new window will appear corresponding to the game
- A maze size of $N \times N$, where N was the input provided, will be displayed in the window as shown in the images

Instructions

- The yellow block represents the player, blue for the goal and red for the scoring tiles
- Move across the maze using the arrow keys





Instructions

- Once the goal is reached, close the current window using “Esc” or “Enter”. It can also be done using the arrow keys
- Note that just reaching the goal does not close the window automatically

Game Rules

- The ultimate objective of the game is to finally reach the goal in minimum amount of time
- The player will start from top left corner of the maze and the goal is at the right bottom corner

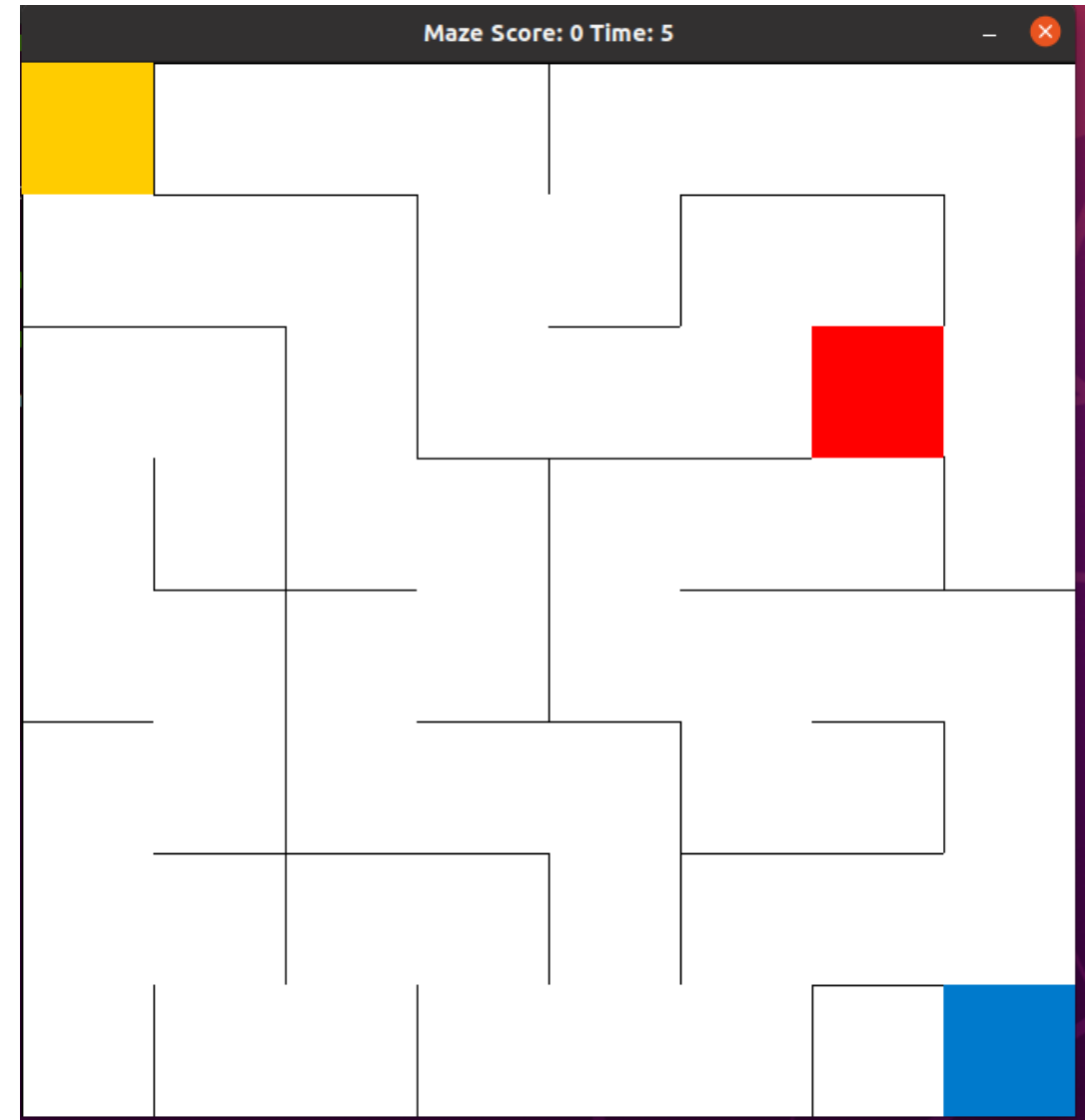


Fig: Game Start

Game Rules

- Score points by visiting scoring tiles marked in red
- Overall score is determined based on the points obtained and the overall time taken to reach the goal

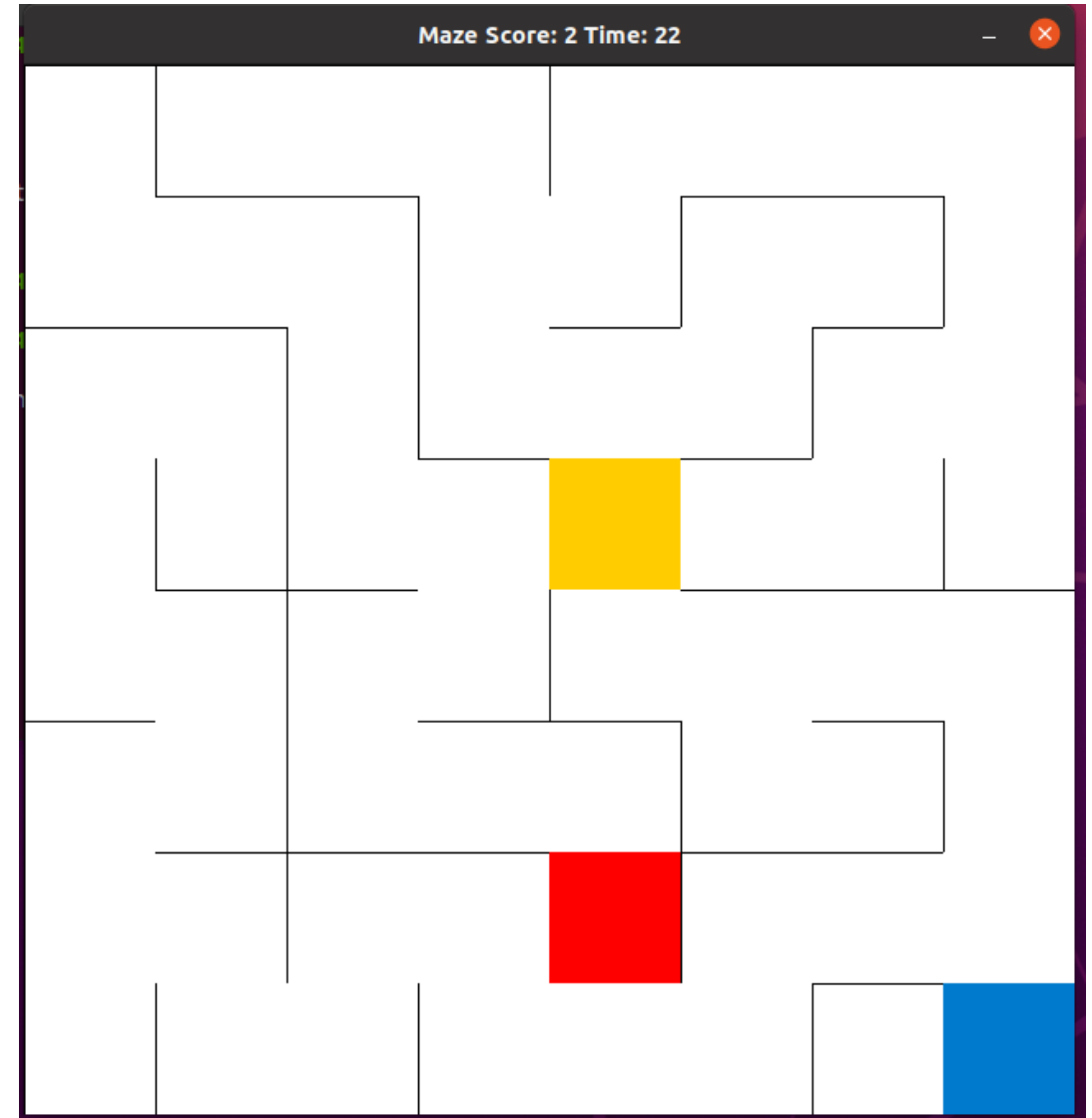


Fig: Game in progress

Game Rules

- Formula for overall score:
$$\text{No. of scoring tiles reached} - ((\text{time in secs}) / (\text{size of maze}))$$
- As a strategy, avoid spending time on reaching a tile and go to the goal instead for a higher overall score

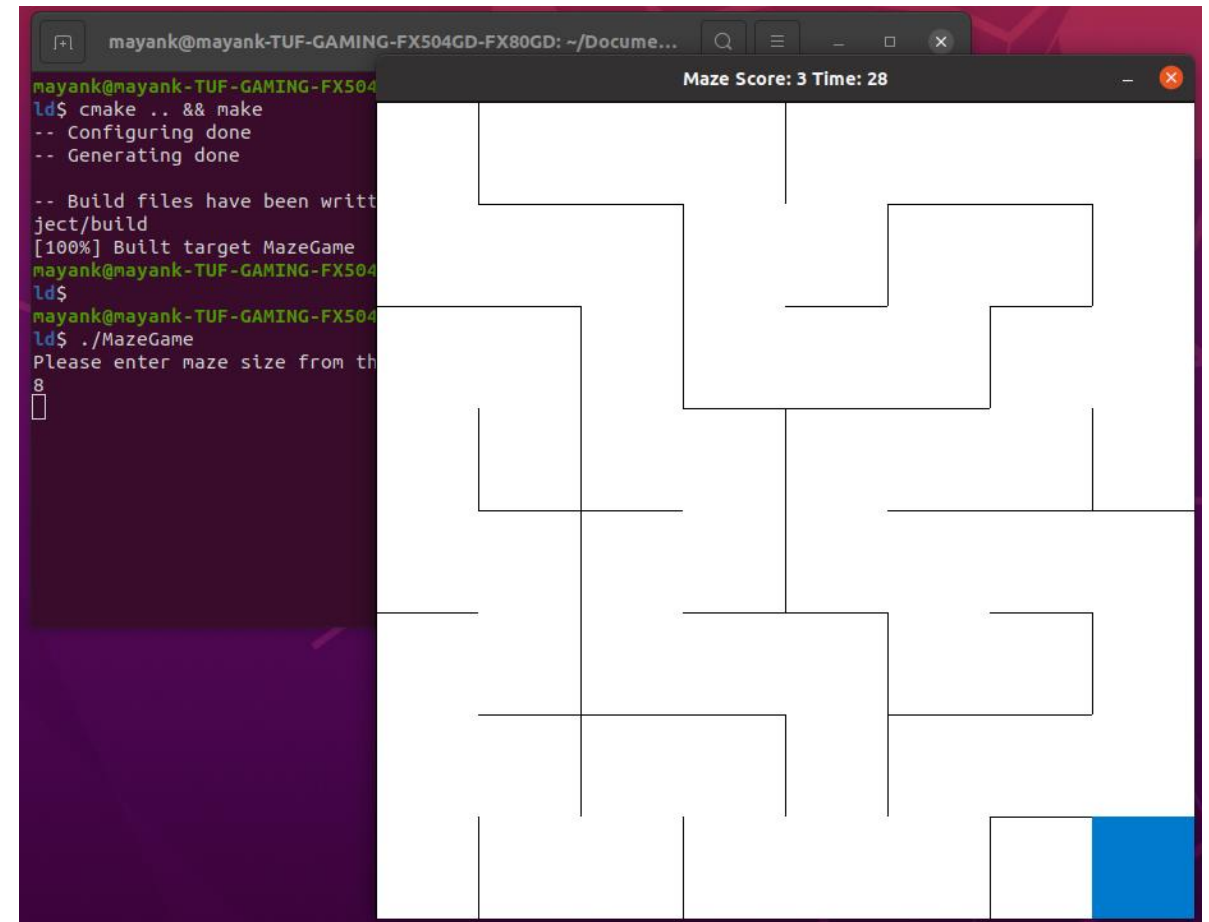
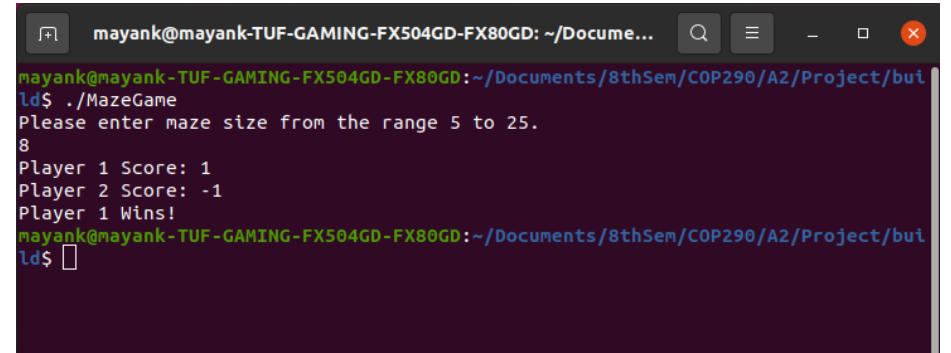


Fig: Goal Reached

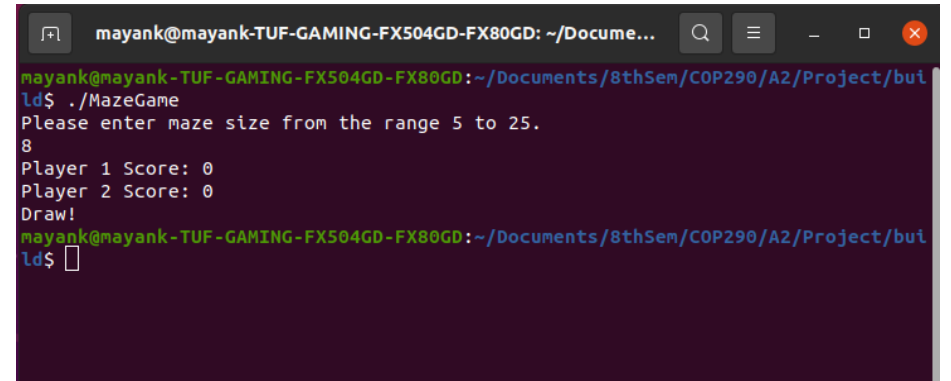
Game Rules

- Once the game is finished the scores are calculated, and the winner is displayed on command line
- In case both players have the same score, “Draw!” will be printed

A terminal window with a dark background and light green text. The window title is 'mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Docume...'. The prompt is 'mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Documents/8thSem/COP290/A2/Project/bui'. The user enters './MazeGame'. The prompt changes to 'ld\$'. The user enters '8'. The prompt changes to 'ld\$'. The user enters '1'. The prompt changes to 'ld\$'. The user enters '-1'. The prompt changes to 'ld\$'. The user enters '1'. The prompt changes to 'ld\$'. The output shows 'Player 1 Score: 1', 'Player 2 Score: -1', and 'Player 1 Wins!'.

```
mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Documents/8thSem/COP290/A2/Project/bui
ld$ ./MazeGame
Please enter maze size from the range 5 to 25.
8
Player 1 Score: 1
Player 2 Score: -1
Player 1 Wins!
mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Documents/8thSem/COP290/A2/Project/bui
ld$
```

Fig: Player 1 wins the game

A terminal window with a dark background and light green text. The window title is 'mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Docume...'. The prompt is 'mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Documents/8thSem/COP290/A2/Project/bui'. The user enters './MazeGame'. The prompt changes to 'ld\$'. The user enters '8'. The prompt changes to 'ld\$'. The user enters '0'. The prompt changes to 'ld\$'. The user enters '0'. The prompt changes to 'ld\$'. The output shows 'Player 1 Score: 0', 'Player 2 Score: 0', and 'Draw!'.

```
mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Documents/8thSem/COP290/A2/Project/bui
ld$ ./MazeGame
Please enter maze size from the range 5 to 25.
8
Player 1 Score: 0
Player 2 Score: 0
Draw!
mayank@mayank-TUF-GAMING-FX504GD-FX80GD: ~/Documents/8thSem/COP290/A2/Project/bui
ld$
```

Fig: Game draw



The End

Enjoy Playing!