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|  | **DAYANANDA SAGAR UNIVERSITY**  **KUDLU GATE, BANGALORE – 560068** |



**BACHELOR OF TECHNOLOGY**

**IN**

**COMPUTER SCIENCE AND ENGINEERING**

**MINI PROJECT REPORT**

**ON**

**MAZE GAME USING PRIM’S ALGORITHM**

**DESIGN AND ANALYSIS OF ALGORITHMS**

**4th SEMESTER**

**Submitted by**

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**School of Engineering, Kudlu Gate, Bangalore-560068**



**CERTIFICATE**

This is to certify that **R Harini (ENG21CS0315), Rithvik Sunil (ENG21CS0332), Reuben Titus (ENG21CS0330), Purab Singh(ENG21CS0313)** bearing has satisfactorily completed his Mini Project as prescribed by the University for the 4th semester B.Tech. program in Computer Science & Engineering during the year 2 at the School of Engineering, Dayananda Sagar University., Bangalore**.**

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| Max Marks | Marks Obtained |
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Signature of faculty in-charge signature of chairman

Department of computer science engineering

Date:

DECLARATION

We,that **R Harini (ENG21CS0315), ),Rithvik Sunil (ENG21CS0332) Reuben Titus (ENG21CS0330), Purab Singh(ENG21CS0313)** are students’ of the fourth semester B.Tech in Computer Science and Engineering, at School of Engineering, Dayananda Sagar University, hereby declare that the Mini Project titled “maze game usings prims algorihtm” has been carried out by us and submitted in partial fulfillment for the award of degree in Bachelor of Technology in Computer Science and Engineering during the academic year 2023‑2024.

**ACKNOWLEDGEMENT**

The satisfaction that accompanies the successful completion of task would be incomplete without the mention of the people who made it possible and whose constant guidance and encouragement crown all the efforts with success.

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We are especially thankful to our **Chairman**, **Dr. Girisha G S ,** for providing the right academic guidance that made our task possible.

We are very much thankful to our **guide prof. Aiswarya r**  for providing help and suggestions in completion of this mini project successfully.

We have received a great deal of guidance and co-operation from our friends and we wish to thank all that have directly or indirectly helped us in the successful completion of this project work.

**ABSTRACT**

Maze games are a classic type of puzzle that involve finding a path through a complex network of rooms and passages. One algorithm that can be used to generate mazes is called Prim's algorithm.

Prim's algorithm works by starting with a grid of rooms, with walls between each room. It then randomly selects a room to be the starting point and adds it to a set of "visited" rooms. The algorithm then examines the unvisited rooms that are adjacent to the current room, and randomly selects one of them to be added to the set of visited rooms. A wall is then removed between the newly visited room and the current room, creating a path between the two rooms. This process is repeated until all rooms have been visited.

The result of this algorithm is a maze with a single, continuous path from the starting room to every other room in the maze. Because the path is generated randomly, each maze created using Prim's algorithm will be unique. This can add an element of surprise and challenge to the game, as the player must figure out the correct path through the maze on their own.