

# **Design a maze game**

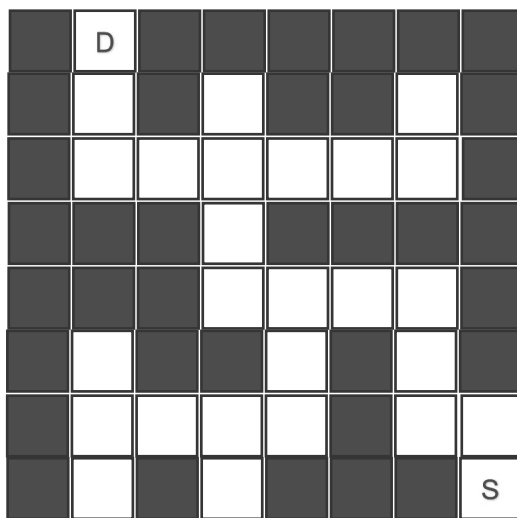
H.K.A.G.Chathuranga

## Design a maze game

This is a Python base assignment. The assignment is done by group of four (04) engineering undergraduates in computer engineering department. Students can form a group of 4 and please indicate the group member details clearly in a separate text file. Members should be different from the previous group members in quest 7 and 8.

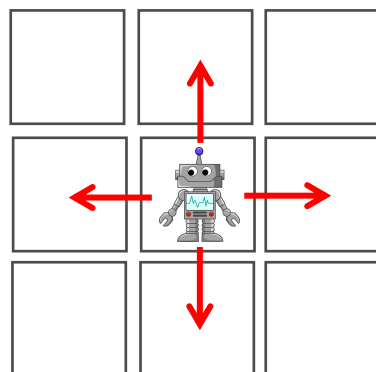
Maze games are very popular among the young children, where the player should find a path which connects the source and destination while avoiding dead ends and loops.

A sample maze diagram is given below.



In this quest, the maze is stored to csv file, where the bricks and paths are represented by 0 and 1, respectively. The starting point and the destination is marked with 'S' and 'D', respectively.

Assume a small robot is moving from *Starting point* to the *Destination* and it can view four adjacent squares from its position as shown below. The robot can move either left, right, top, or bottom directions and a one square at a time.



Picture is from pixabay.org

Develop a programme to move the robot from *Starting point* to *Destination*. Print the motion of the robot in each step to the screen and keep one second delay between each step. You can print

S - starting point

D - destination

R - robot

O - bricks

. - road

Once the robot reach the destination, print the correct path with '+' sign in the map.

There are three maze maps provided in the zip file. Use them to test the program.