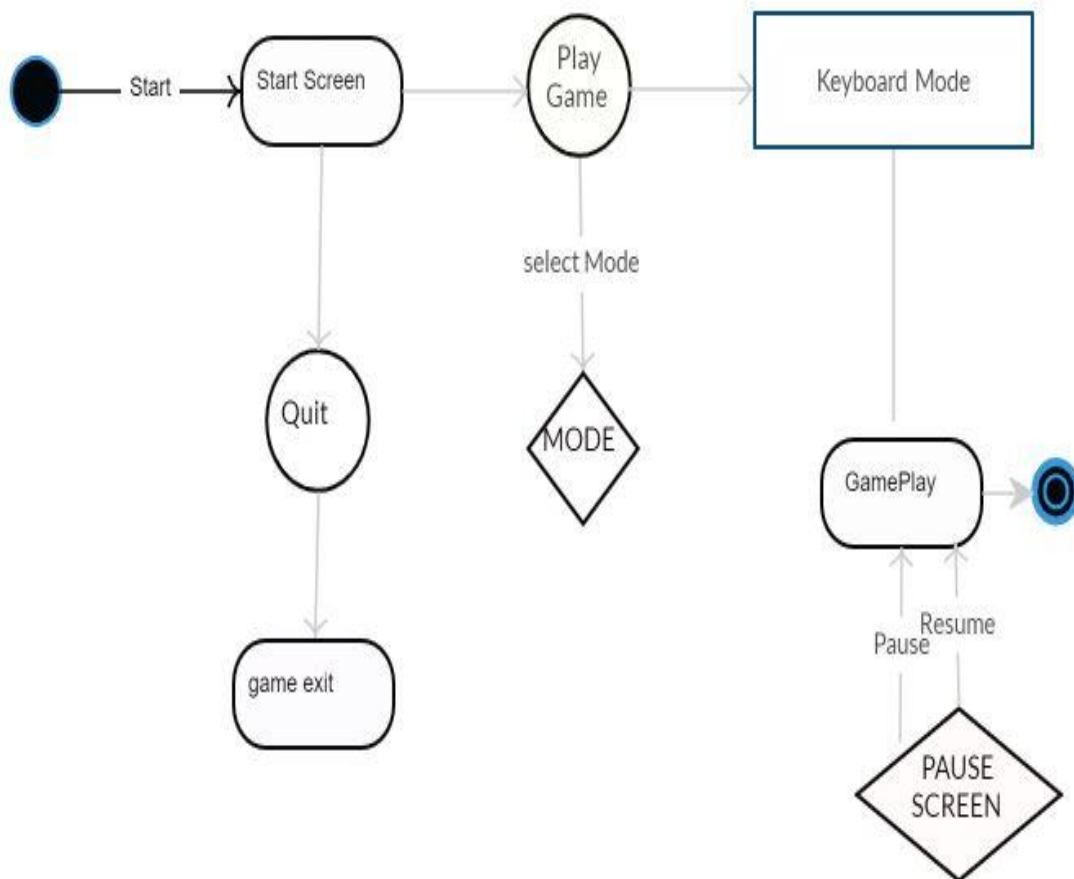


# STATE DIAGRAM FOR MAZE GAME



# PSEUDO CODE FOR MAZE GAME

1. Start
2. Select the Mood Manual/Automatic
3. **While ():**                               // loop start up till it ends.
4. **If (mood==manual)**  
    Uses the followings.
  - a. F= forward, B= backward, R=Rotate
5. **If (mood==automatic)**  
    Then the robot will automatically find its path  
    Go Forward if available, go backward if went up in auto mood and rotate if nothing is available.
6. **First robot ()** =location in x and y
7. Increment in y direction = (0,1)
8. **Do while ()** up to end.
9. **If (num direction===w):**
  - a. Go to that direction.  
    Update the direction and location.
10. **If (numdirections==f):**
  - a. Take option in front.  
    Update the direction and location.
11. **If (numdirection>2):**
  - a. Store location x and y also direction

## Boundary wall

Location

Wall = (-1,0) , (0, 1), (1,0), (0,-1)-t/f     ///for each of direction

12. **If (robot==visit location before):**

Go to other direction.

Update the boundary also location.

**False**

Save that boundary.

Go right.

# CODE

## **Maze.cpp**

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
#include<windows.h>
```

```
#include "levels.h"
```

```
#include "functions.h"
```

```
int main(){
```

```
    system("color B");
```

```
    printf("\n\t-Simple Areena based maze game in C - ");
```

```
    printf("\n\n\t-(For Manual Mood Use the keyboard keys to Move)");
```

```
    printf("\n\n\t-(Press F For Forward)");
```

```
    printf("\n\t-(Press B For Backword)");
```

```
    printf("\n\t-(Press R For Upp)");
```

```
    printf("\n\t-(Press S For Down)");
```

```
    menu();
```

```
    while(1){
```

```

    character = getch();

    if(character == 'A' || character == 'a')
    {
        Acontrol();
    }

    if(character == 'M' || character == 'm')
    {
        Mcontrol();
    }

    if(character == 'E' || character == 'e'){
        system("CLS");
        printf("\n\t Exit.");
        break;
    }

}

getch();

return 0;

}

```

## Functions.h

```

#define player '>'

#define number_of_move 80

```

```
#define default_flag 1
```

```
char direction;
```

```
char character;
```

```
char wall[0];
```

```
int counter;
```

```
int k,l,i,j;
```

```
int flag;
```

```
void init(){
```

```
    wall[0]=c_wall ;
```

```
    flag=default_flag;
```

```
    counter = number_of_move;
```

```
    i=start_y;
```

```
    j=start_x;
```

```
}
```

```
void warning(){
```

```
    printf("\a\n\n --> !! You hit the wall. !! \n\n");
```

```
}
```

```
void menu(){
```

```
    printf("\n\n\t\tMENU\n\n\tPress A For Automaticate PLAY\n\tPress M For Manual  
Play\n\tPress E For EXIT\n");
```

```
}
```

```
void openfile()
```

```
{
```

```
    FILE *filePointer;
```

```
}
```

```
void display(){
```

```
    system("CLS");
```

```
    system("color B");
```

```
    //-----
```

```
    printf( "\n\tNumber of moves: %d\n\n", counter-1 );
```

```
    for( k = 0; k < 21; k++ )
```

```
    {
```

```
        printf( "  " );
```

```
        for( l = 0; l < 38; l++ )
```

```
        {
```

```
            printf( "%c", str1[ k ][ l ] );
```

```
        }
```

```
        printf( "\n" );
```

```
    }
```

```
    printf( "\n ! Press R-B-S-F keys to move.");
```

```
    printf( "\n ! Press E to exit. ");
```

```
    //-----
```

```
}
```

```
void Mcontrol(){
```

```
init();
level1(player);
display();

while(flag!=0)
{
    direction = getch();
    display();

    if( direction == 'B' || direction == 'b' )
    {
        if(map_name[i][j-1] != wall[0] && map_name[i][j-1] !=NULL )
        {
            map_name[i][j] = space;
            map_name[i][--j] = player;
            display();
        }
        else
            warning();
    }
    if( direction == 'F' || direction == 'f' )
    {
        if(map_name[i][j+1] != wall[0] )
        {
            map_name[i][j] = space;
            map_name[i][++j] = player;
            display();
        }
    }
}
```

```

        else

            warning();

    }

    if( direction == 'R' || direction == 'r' )
    {

        if(map_name[i-1][j] != wall[0] )
        {

            map_name[i][j] = space;
            map_name[--i][j] = player;
            display();
        }

        else

            warning();

    }

    if( direction == 'S' || direction == 's' )
    {

        if(map_name[i+1][j] != wall[0] )
        {

            map_name[i][j] = space;
            map_name[++i][j] = player;
            display();
        }

        else

            warning();

    }

    if( direction == 'E' || direction == 'e' )
    {

        flag=0;

```



```

        system("CLS");
        printf("\n\t Exit.");
        printf("\n\n\t\tPress E To EXIT\n");
    }

    counter=counter-1;

    //Finish
    if(counter == 0)
    {
        flag=0;
        system("color 7C");
        printf("\n\n\tYOU LOSE! :( \n");
        menu();
    }
    else if(map_name[finish_y][finish_x] == player)
    {
        flag=0;
        system("color 0A");
        printf("\n\n\tYOU WIN! :) \n");
        menu();
    }
    //-----
}
}

```

```

void Acontrol(){

```

```

init();
level1(player);
display();

while(flag!=0)
{
    char c;
    int r;

    r = rand() % 4;
    c = 'a' + r;

    direction = c;
    display();

    if( direction == 'B' || direction == 'b' )
    {
        if(map_name[i][j-1] != wall[0] && map_name[i][j-1] !=NULL )
        {
            map_name[i][j] = space;
            map_name[i][--j] = player;
            display();
        }
        else
            warning();
    }

    if( direction == 'A' || direction == 'a' )

```

```

{
    if(map_name[i][j+1] != wall[0] )
    {
        map_name[i][j] = space;
        map_name[i][++j] = player;
        display();
    }
    else
        warning();
}

if( direction == 'C' || direction == 'c' )
{
    if(map_name[i-1][j] != wall[0] )
    {
        map_name[i][j] = space;
        map_name[--i][j] = player;
        display();
    }
    else
        warning();
}

if( direction == 'D' || direction == 'd' )
{
    if(map_name[i+1][j] != wall[0] )
    {
        map_name[i][j] = space;
        map_name[++i][j] = player;
        display();
    }
}

```

```

        }
        else
            warning();
    }
    if( direction == 'E' || direction == 'e' )
    {
        flag=0;
        system("CLS");
        printf("\n\t Exit.");
        printf("\n\n\t\tPress E To EXIT\n");
    }

    counter=counter-1;

    //Finish
    if(counter == 0)
    {
        flag=0;
        system("color 7C");
        printf("\n\n\tYOU LOSE! :( \n");
        menu();
    }
    else if(map_name[finish_y][finish_x] == player)
    {
        flag=0;
        system("color 0A");
        printf("\n\n\tYOU WIN! :) \n");
        menu();
    }

```

```

        }
        //-----
    }
}

```

## Levels.h

```
#define map_name str1
```

```
#define c_wall 88
```

```
#define space 32
```

```
#define finish 62
```

```
#define start_y 1
```

```
#define start_x 0
```

```
#define finish_y 19
```

```
#define finish_x 36
```

```
char str1[21][38] = {"      ", "      ", "      ", "      ", "      ", "      ", "      ", "      "};
```

```
void level1(char player){
```

```

    str1[0][0]=c_wall;
    str1[0][1]=c_wall;str1[0][2]=c_wall;str1[0][3]=c_wall;str1[0][4]=c_wall;str1[0][5]=c_wall;str1[0][6]=c_wall;str1[0][7]=c_wall;str1[0][8]=c_wall;str1[0][9]=c_wall;str1[0][10]=c_wall;str1[0][11]=c_wall;str1[0][12]=c_wall;str1[0][13]=c_wall;str1[0][14]=c_wall;str1[0][15]=c_wall;str1[0][16]=c_wall;str1[0][17]=c_wall;str1[0][18]=c_wall;str1[0][19]=c_wall;str1[0][20]=c_wall;str1[0][21]=c_wall;str1[0][22]=c_wall;str1[0][23]=c_wall;str1[0][24]=c_wall;str1[0][25]=c_wall;str1[0][26]=c_wall;str1[0][27]=c_wall;str1[0][28]=c_wall;str1[0][29]=c_wall;str1[0][30]=c_wall;str1[0][31]=c_wall;str1[0][32]=c_wall;str1[0][33]=c_wall;str1[0][34]=c_wall;str1[0][35]=c_wall;str1[0][36]=c_wall;str1[0][37]=c_wall;

```

```
str1[1][0]=player; str1[1][1]=space ;str1[1][2]=space;str1[1][3]=space
;str1[1][4]=space ;str1[1][5]=space ;str1[1][6]=space ;str1[1][7]=space;str1[1][8]=space
;str1[1][9]=space;str1[1][10]=space;str1[1][11]=space;str1[1][12]=space;str1[1][13]=space;s
tr1[1][14]=space;str1[1][15]=space;str1[1][16]=space;str1[1][17]=space;str1[1][18]=space;s
tr1[1][19]=space;str1[1][20]=space;str1[1][21]=space;str1[1][22]=c_wall;str1[1][23]=space;
str1[1][24]=space;str1[1][25]=space;str1[1][26]=space;str1[1][27]=space;str1[1][28]=space;
str1[1][29]=space;str1[1][30]=space;str1[1][31]=space;str1[1][32]=space;str1[1][33]=c_wall
;str1[1][34]=space;str1[1][35]=space;str1[1][36]=space;str1[1][37]=c_wall;
```

```
str1[2][0]=c_wall; str1[2][1]=c_wall ;str1[2][2]=c_wall;str1[2][3]=c_wall
;str1[2][4]=space;str1[2][5]=c_wall;str1[2][6]=c_wall ;str1[2][7]=c_wall ;str1[2][8]=c_wall
;str1[2][9]=c_wall;str1[2][10]=c_wall;str1[2][11]=c_wall;str1[2][12]=c_wall;str1[2][13]=c_
wall;str1[2][14]=c_wall;str1[2][15]=c_wall;str1[2][16]=c_wall;str1[2][17]=c_wall;str1[2][18
]=c_wall;str1[2][19]=c_wall;str1[2][20]=space;str1[2][21]=space;str1[2][22]=c_wall;str1[2][
23]=space;str1[2][24]=space;str1[2][25]=space;str1[2][26]=space;str1[2][27]=space;str1[2][
28]=space;str1[2][29]=space;str1[2][30]=space;str1[2][31]=space;str1[2][32]=space;str1[2][
33]=space;str1[2][34]=space;str1[2][35]=space;str1[2][36]=space;str1[2][37]=c_wall;
```

```
str1[3][0]=c_wall; str1[3][1]=c_wall ;str1[3][2]=space;str1[3][3]=c_wall
;str1[3][4]=space ;str1[3][5]=space ;str1[3][6]=space;str1[3][7]=space
;str1[3][8]=space;str1[3][9]=space;str1[3][10]=space;str1[3][11]=space;str1[3][12]=space;st
r1[3][13]=space;str1[3][14]=space;str1[3][15]=space;str1[3][16]=space;str1[3][17]=space;st
r1[3][18]=space;str1[3][19]=space;str1[3][20]=space;str1[3][21]=space;str1[3][22]=c_wall;s
tr1[3][23]=c_wall;str1[3][24]=space;str1[3][25]=space;str1[3][26]=c_wall;str1[3][27]=space
;str1[3][28]=space;str1[3][29]=space;str1[3][30]=space;str1[3][31]=space;str1[3][32]=space
;str1[3][33]=c_wall;str1[3][34]=space;str1[3][35]=space;str1[3][36]=space;str1[3][37]=c_wa
ll;
```

```
str1[4][0]=c_wall; str1[4][1]=c_wall ;str1[4][2]=space ;str1[4][3]=c_wall
;str1[4][4]=space;str1[4][5]=space ;str1[4][6]=space;str1[4][7]=space ;str1[4][8]=space
;str1[4][9]=space;str1[4][10]=space;str1[4][11]=space;str1[4][12]=space;str1[4][13]=space;s
tr1[4][14]=space;str1[4][15]=c_wall;str1[4][16]=space;str1[4][17]=space;str1[4][18]=c_wall
;str1[4][19]=space;str1[4][20]=space;str1[4][21]=c_wall;str1[4][22]=space;str1[4][23]=spac
e;str1[4][24]=c_wall;str1[4][25]=space;str1[4][26]=c_wall;str1[4][27]=space;str1[4][28]=sp
ace;str1[4][29]=space;str1[4][30]=space;str1[4][31]=space;str1[4][32]=space;str1[4][33]=c_
wall;str1[4][34]=space;str1[4][35]=c_wall;str1[4][36]=c_wall;str1[4][37]=c_wall;
```

```
str1[5][0]=c_wall; str1[5][1]=c_wall;str1[5][2]=space;str1[5][3]=c_wall
;str1[5][4]=c_wall;str1[5][5]=c_wall;str1[5][6]=c_wall;str1[5][7]=c_wall;str1[5][8]=space
;str1[5][9]=space;str1[5][10]=space;str1[5][11]=space;str1[5][12]=space;str1[5][13]=space;s
tr1[5][14]=space;str1[5][15]=c_wall;str1[5][16]=space;str1[5][17]=space;str1[5][18]=c_wall
;str1[5][19]=c_wall;str1[5][20]=space;str1[5][21]=c_wall;str1[5][22]=space;str1[5][23]=spa
ce;str1[5][24]=c_wall;str1[5][25]=space;str1[5][26]=c_wall;str1[5][27]=space;str1[5][28]=sp
ace;str1[5][29]=space;str1[5][30]=space;str1[5][31]=space;str1[5][32]=space;str1[5][33]=c_
wall;str1[5][34]=space;str1[5][35]=space;str1[5][36]=space;str1[5][37]=c_wall;
```

```
str1[6][0]=c_wall; str1[6][1]=c_wall ;str1[6][2]=space ;str1[6][3]=space
;str1[6][4]=space ;str1[6][5]=space ;str1[6][6]=space ;str1[6][7]=space;str1[6][8]=space
;str1[6][9]=space;str1[6][10]=space;str1[6][11]=space;str1[6][12]=space;str1[6][13]=space;s
tr1[6][14]=space;str1[6][15]=c_wall;str1[6][16]=space;str1[6][17]=space;str1[6][18]=c_wall
;str1[6][19]=c_wall;str1[6][20]=space;str1[6][21]=c_wall;str1[6][22]=space;str1[6][23]=spa
ce;str1[6][24]=c_wall;str1[6][25]=space;str1[6][26]=c_wall;str1[6][27]=c_wall;str1[6][28]=s
pace;str1[6][29]=c_wall;str1[6][30]=c_wall;str1[6][31]=c_wall;str1[6][32]=c_wall;str1[6][33
]=c_wall;str1[6][34]=space;str1[6][35]=space;str1[6][36]=space;str1[6][37]=c_wall;
```

```
str1[7][0]=c_wall; str1[7][1]=c_wall
;str1[7][2]=space;str1[7][3]=space;str1[7][4]=space;str1[7][5]=space
;str1[7][6]=space;str1[7][7]=space;str1[7][8]=space
;str1[7][9]=space;str1[7][10]=space;str1[7][11]=space;str1[7][12]=space;str1[7][13]=space;s
tr1[7][14]=space;str1[7][15]=c_wall;str1[7][16]=space;str1[7][17]=space;str1[7][18]=c_wall
;str1[7][19]=c_wall;str1[7][20]=space;str1[7][21]=c_wall;str1[7][22]=space;str1[7][23]=spa
ce;str1[7][24]=c_wall;str1[7][25]=space;str1[7][26]=c_wall;str1[7][27]=space;str1[7][28]=sp
ace;str1[7][29]=c_wall;str1[7][30]=space;str1[7][31]=space;str1[7][32]=space;str1[7][33]=s
pace;str1[7][34]=space;str1[7][35]=space;str1[7][36]=space;str1[7][37]=c_wall;
```

```
str1[8][0]=c_wall; str1[8][1]=c_wall ;str1[8][2]=c_wall ;str1[8][3]=c_wall
;str1[8][4]=space;str1[8][5]=space ;str1[8][6]=space ;str1[8][7]=space;str1[8][8]=space
;str1[8][9]=space;str1[8][10]=space;str1[8][11]=space;str1[8][12]=space;str1[8][13]=c_wall;
str1[8][14]=c_wall;str1[8][15]=c_wall;str1[8][16]=space;str1[8][17]=space;str1[8][18]=c_wa
ll;str1[8][19]=c_wall;str1[8][20]=space;str1[8][21]=c_wall;str1[8][22]=c_wall;str1[8][23]=c
_wall;str1[8][24]=c_wall;str1[8][25]=space;str1[8][26]=c_wall;str1[8][27]=space;str1[8][28]
=space;str1[8][29]=c_wall;str1[8][30]=space;str1[8][31]=space;str1[8][32]=space;str1[8][33
]=space;str1[8][34]=space;str1[8][35]=space;str1[8][36]=space;str1[8][37]=c_wall;
```

```
str1[9][0]=c_wall;
str1[9][1]=space;str1[9][2]=space;str1[9][3]=c_wall;str1[9][4]=space;str1[9][5]=space;str1[
9][6]=space;str1[9][7]=space;str1[9][8]=space;str1[9][9]=space;str1[9][10]=space;str1[9][11
]=space;str1[9][12]=space;str1[9][13]=c_wall;str1[9][14]=space;str1[9][15]=c_wall;str1[9][1
6]=space;str1[9][17]=space;str1[9][18]=c_wall;str1[9][19]=c_wall;str1[9][20]=space;str1[9][
21]=c_wall;str1[9][22]=space;str1[9][23]=space;str1[9][24]=c_wall;str1[9][25]=space;str1[9
][26]=c_wall;str1[9][27]=space;str1[9][28]=space;str1[9][29]=c_wall;str1[9][30]=space;str1[
9][31]=space;str1[9][32]=space;str1[9][33]=space;str1[9][34]=space;str1[9][35]=space;str1[
9][36]=space;str1[9][37]=c_wall;
```

```
str1[10][0]=c_wall;
str1[10][1]='o';str1[10][2]='o';str1[10][3]=space;str1[10][4]=space;str1[10][5]=c_wall;str1[
10][6]=space;str1[10][7]=space;str1[10][8]=space;str1[10][9]=space;str1[10][10]=space;str1
[10][11]=space;str1[10][12]=space;str1[10][13]=c_wall;str1[10][14]=space;str1[10][15]=c_w
all;str1[10][16]=space;str1[10][17]=space;str1[10][18]=c_wall;str1[10][19]=c_wall;str1[10][
```

20]=space;str1[10][21]=c\_wall;str1[10][22]=space;str1[10][23]=space;str1[10][24]=c\_wall;str1[10][25]=space;str1[10][26]=c\_wall;str1[10][27]=space;str1[10][28]=space;str1[10][29]=c\_wall;str1[10][30]=space;str1[10][31]=space;str1[10][32]=space;str1[10][33]=space;str1[10][34]=space;str1[10][35]=space;str1[10][36]=space;str1[10][37]=c\_wall;

str1[11][0]=c\_wall; str1[11][1]='o' ;str1[11][2]='o';str1[11][3]=c\_wall  
;str1[11][4]=space ;str1[11][5]=space ;str1[11][6]=space  
;str1[11][7]=space;str1[11][8]=space  
;str1[11][9]=space;str1[11][10]=space;str1[11][11]=space;str1[11][12]=space;str1[11][13]=c\_wall;str1[11][14]=space;str1[11][15]=c\_wall;str1[11][16]=space;str1[11][17]=c\_wall;str1[11][18]=c\_wall;str1[11][19]=c\_wall;str1[11][20]=space;str1[11][21]=space;str1[11][22]=c\_wall;str1[11][23]=space;str1[11][24]=c\_wall;str1[11][25]=space;str1[11][26]=c\_wall;str1[11][27]=space;str1[11][28]=space;str1[11][29]=c\_wall;str1[11][30]=space;str1[11][31]=space;str1[11][32]=space;str1[11][33]=space;str1[11][34]=space;str1[11][35]=space;str1[11][36]=space;str1[11][37]=c\_wall;

str1[12][0]=c\_wall; str1[12][1]='o' ;str1[12][2]='o';str1[12][3]=c\_wall  
;str1[12][4]=c\_wall;str1[12][5]=c\_wall;str1[12][6]=c\_wall ;str1[12][7]=c\_wall  
;str1[12][8]=space  
;str1[12][9]=c\_wall;str1[12][10]=c\_wall;str1[12][11]=space;str1[12][12]=c\_wall;str1[12][13]=c\_wall;str1[12][14]=space;str1[12][15]=c\_wall;str1[12][16]=space;str1[12][17]=space;str1[12][18]=c\_wall;str1[12][19]=c\_wall;str1[12][20]=space;str1[12][21]=space;str1[12][22]=c\_wall;str1[12][23]=space;str1[12][24]=c\_wall;str1[12][25]=c\_wall;str1[12][26]=c\_wall;str1[12][27]=space;str1[12][28]=space;str1[12][29]=space;str1[12][30]=c\_wall;str1[12][31]=c\_wall;str1[12][32]=c\_wall;str1[12][33]=c\_wall;str1[12][34]=c\_wall;str1[12][35]=c\_wall;str1[12][36]=c\_wall;str1[12][37]=c\_wall;

str1[13][0]=c\_wall; str1[13][1]='o' ;str1[13][2]='o';str1[13][3]=c\_wall  
;str1[13][4]=space ;str1[13][5]=space ;str1[13][6]=c\_wall;str1[13][7]=c\_wall  
;str1[13][8]=space;str1[13][9]=space;str1[13][10]=c\_wall;str1[13][11]=space;str1[13][12]=c\_wall;str1[13][13]=space;str1[13][14]=space;str1[13][15]=c\_wall;str1[13][16]=space;str1[13][17]=space;str1[13][18]=c\_wall;str1[13][19]=c\_wall;str1[13][20]=space;str1[13][21]=space;str1[13][22]=c\_wall;str1[13][23]=space;str1[13][24]=c\_wall;str1[13][25]=space;str1[13][26]=c\_wall;str1[13][27]=space;str1[13][28]=space;str1[13][29]=space;str1[13][30]=c\_wall;str1[13][31]='o';str1[13][32]='o';str1[13][33]='o';str1[13][34]=space;str1[13][35]=space;str1[13][36]=space;str1[13][37]=c\_wall;

str1[14][0]=c\_wall; str1[14][1]=space ;str1[14][2]=space ;str1[14][3]=c\_wall  
;str1[14][4]=space;str1[14][5]=space ;str1[14][6]=c\_wall;str1[14][7]=space  
;str1[14][8]=c\_wall  
;str1[14][9]=space;str1[14][10]=space;str1[14][11]=space;str1[14][12]=c\_wall;str1[14][13]=space;str1[14][14]=space;str1[14][15]=c\_wall;str1[14][16]=space;str1[14][17]=space;str1[14][18]=c\_wall;str1[14][19]=c\_wall;str1[14][20]=space;str1[14][21]=space;str1[14][22]=c\_wall;str1[14][23]=space;str1[14][24]=c\_wall;str1[14][25]=space;str1[14][26]=space;str1[14][27]=space;str1[14][28]=space;str1[14][29]=space;str1[14][30]=c\_wall;str1[14][31]='o';str1[14][32]=space;str1[14][33]=space;str1[14][34]=space;str1[14][35]=space;str1[14][36]=space;str1[14][37]=c\_wall;



32]='o';str1[14][33]='o';str1[14][34]=space;str1[14][35]=space;str1[14][36]=space;str1[14][37]=c\_wall;

str1[15][0]=c\_wall; str1[15][1]=c\_wall;str1[15][2]=c\_wall;str1[15][3]=c\_wall  
;str1[15][4]=c\_wall;str1[15][5]=c\_wall;str1[15][6]=c\_wall;str1[15][7]=c\_wall;str1[15][8]=c\_wall  
;str1[15][9]=space;str1[15][10]=c\_wall;str1[15][11]=c\_wall;str1[15][12]=c\_wall;str1[15][13]=space;str1[15][14]=space;str1[15][15]=c\_wall;str1[15][16]=space;str1[15][17]=space;str1[15][18]=space;str1[15][19]=c\_wall;str1[15][20]=space;str1[15][21]=space;str1[15][22]=c\_wall;str1[15][23]=c\_wall;str1[15][24]=c\_wall;str1[15][25]=c\_wall;str1[15][26]=c\_wall;str1[15][27]=c\_wall;str1[15][28]=c\_wall;str1[15][29]=c\_wall;str1[15][30]=c\_wall;str1[15][31]='o';str1[15][32]='o';str1[15][33]='o';str1[15][34]=space;str1[15][35]=space;str1[15][36]=space;str1[15][37]=c\_wall;

str1[16][0]=c\_wall; str1[16][1]=space ;str1[16][2]=space ;str1[16][3]=space  
;str1[16][4]=space ;str1[16][5]=space ;str1[16][6]=space  
;str1[16][7]=space;str1[16][8]=c\_wall  
;str1[16][9]=space;str1[16][10]=space;str1[16][11]=space;str1[16][12]=space;str1[16][13]=space;str1[16][14]=space;str1[16][15]=space;str1[16][16]=space;str1[16][17]=space;str1[16][18]=space;str1[16][19]=space;str1[16][20]=space;str1[16][21]=space;str1[16][22]=space;str1[16][23]=space;str1[16][24]=c\_wall;str1[16][25]=space;str1[16][26]=space;str1[16][27]=space;str1[16][28]=space;str1[16][29]=space;str1[16][30]=space;str1[16][31]=space;str1[16][32]=space;str1[16][33]=space;str1[16][34]=space;str1[16][35]=space;str1[16][36]=space;str1[16][37]=c\_wall;

str1[17][0]=c\_wall; str1[17][1]=space ;str1[17][2]=space ;str1[17][3]=c\_wall  
;str1[17][4]=space ;str1[17][5]=space  
;str1[17][6]=space;str1[17][7]=space;str1[17][8]=c\_wall  
;str1[17][9]=space;str1[17][10]=space;str1[17][11]=c\_wall;str1[17][12]=space;str1[17][13]=space;str1[17][14]=space;str1[17][15]=space;str1[17][16]=space;str1[17][17]=c\_wall;str1[17][18]=space;str1[17][19]=space;str1[17][20]=space;str1[17][21]=space;str1[17][22]=space;str1[17][23]=space;str1[17][24]=space;str1[17][25]=space;str1[17][26]=space;str1[17][27]=space;str1[17][28]=space;str1[17][29]=space;str1[17][30]=space;str1[17][31]=space;str1[17][32]=c\_wall;str1[17][33]=space;str1[17][34]=space;str1[17][35]=space;str1[17][36]=space;str1[17][37]=c\_wall;

str1[18][0]=c\_wall; str1[18][1]=space ;str1[18][2]=space ;str1[18][3]=c\_wall  
;str1[18][4]=space ;str1[18][5]=space ;str1[18][6]=space  
;str1[18][7]=space;str1[18][8]=c\_wall  
;str1[18][9]=space;str1[18][10]=space;str1[18][11]=c\_wall;str1[18][12]=space;str1[18][13]=space;str1[18][14]=space;str1[18][15]=space;str1[18][16]=space;str1[18][17]=c\_wall;str1[18][18]=space;str1[18][19]=space;str1[18][20]=space;str1[18][21]=space;str1[18][22]=space;str1[18][23]=space;str1[18][24]=c\_wall;str1[18][25]=space;str1[18][26]=space;str1[18][27]=space;str1[18][28]=space;str1[18][29]=space;str1[18][30]=space;str1[18][31]=space;str1[18][32]=space;str1[18][33]=space;str1[18][34]=space;str1[18][35]=space;str1[18][36]=space;str1[18][37]=c\_wall;

```
32]=c_wall;str1[18][33]=space;str1[18][34]=space;str1[18][35]=space;str1[18][36]=space;str1[18][37]=c_wall;

    str1[19][0]=c_wall;
str1[19][1]=c_wall;str1[19][2]=c_wall;str1[19][3]=c_wall;str1[19][4]=c_wall;str1[19][5]=c_wall;str1[19][6]=c_wall;str1[19][7]=c_wall;str1[19][8]=c_wall;str1[19][9]=c_wall;
str1[19][10]=c_wall;str1[19][11]=c_wall;str1[19][12]=c_wall;str1[19][13]=c_wall;str1[19][14]=c_wall;str1[19][15]=c_wall;str1[19][16]=c_wall;str1[19][17]=c_wall;str1[19][18]=c_wall;
str1[19][19]=c_wall;str1[19][20]=c_wall;str1[19][21]=c_wall;str1[19][22]=c_wall;str1[19][23]=c_wall;str1[19][24]=c_wall;str1[19][25]=c_wall;str1[19][26]=c_wall;str1[19][27]=c_wall;
str1[19][28]=c_wall;str1[19][29]=c_wall;str1[19][30]=c_wall;str1[19][31]=c_wall;str1[19][32]=c_wall;str1[19][33]=c_wall;str1[19][34]=c_wall;str1[19][35]=space;str1[19][36]=space;str1[19][37]=finish;

}
```

# SAMPLE TEST AND RUNS

Automatic Mode

-Simple Areena based maze game in C -

-(For Manual Mood Use the keyboard keys to Move)

-(Press F For Forward)

-(Press B For Backword)

-(Press R For Upp)

-(Press S For Down)

#### MENU

Press A For Automaticate PLAY

Press M For Manual Play

Press E For EXIT

Number of moves: 74

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
      >                X                X  X
XXXX XXXXXXXXXXXXXXXXXXXX X                X
XX X                XX X                X  X
XX X                X X X X X X                X XXX
XX XXXXX                X XX X X X X                X  X
XX                X XX X X XX XXXXX                X
XX                X XX X X X X X                X
XXXX                XXX XX XXXX X X                X
X X                X X XX X X X X X                X
Xoo X                X X XX X X X X X                X
XooX                X X XXX X X X X                X
XooXXXXX XX XX X XX X XXX XXXXXXXX
XooX XX X X X XX X X X Xooo X
X X X X X X XX X X Xooo X
XXXXXXXXXX XXX X X XXXXXXXXXooo X
X      X                X                X
X X      X X      X                X  X
X X      X X      X      X      X  X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX >
```

! Press R-B-S-F keys to move.

! Press E to exit.

Number of moves: 53

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                X                X  X
XXXX XXXXXXXXXXXXXXXX X                X
XX X                XX X                X  X
XX X                X X X X X X                X XXX
XX XXXXX                X XX X X X X                X X
XX                X XX X X X XX XXXXX                X
XX                X XX X X X X X                X
XXXX                XXX XX XXXX X X                X
X X                X X XX X X X X X                X
Xoo X                >X X XX X X X X                X
XooX                X X XXX X X X X                X
XooXXXXX XX XX X XX X XXX XXXXXXXX
XooX XX X X X XX X X X Xooo X
X X X X X X XX X X Xooo X
XXXXXXXXXX XXX X X XXXXXXXXXooo X
X                X                X
X X X X X                X X X
X X X X X                X X X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX >

```

! Press R-B-S-F keys to move.

! Press E to exit.

--> !! You hit the wall. !!

Number of moves: 21

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                      X           X   X
XXXX XXXXXXXXXXXXXXXXXXXX X           X
XX X                      XX X       X   X
XX X                      X X X X X X   X XXX
XX XXXXX                X XX X X X X   X   X
XX                      X XX X X XX XXXXX X
XX                      X XX X X X X X   X
XXXX                  XXX XX XXXX X X   X
X X                  X X XX X X X X X   X
Xoo X                X X XX X X X X X   X
XooX                 X X XXX X X X X X   X
XooXXXXX XX XX X XX X XXX XXXXXXXX
XooX XX X X X XX X X X Xooo X
X X X X X X XX X X Xooo X
XXXXXXXXXX XXX X X XXXXXXXXooo X
X      X          X          X
X X  X X  X          X          X X
X X  X X  X      X      X      X X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX >>
```

! Press R-B-S-F keys to move.  
! Press E to exit.

YOU WIN! :)

#### MENU

Press A For Automaticate PLAY  
Press M For Manual Play  
Press E For EXIT

Exit.

-----  
Process exited after 260.4 seconds with return value 0  
Press any key to continue . . .

Number of moves: 0

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
>                X                X  X
XXXX XXXXXXXXXXXXXXXX X                X
XX X                XX X                X  X
XX X                X  X  X  X  X  X  X  XXX
XX XXXXX                X  XX X  X  X  X  X
XX                X  XX X  X  XX XXXXX  X
XX                X  XX X  X  X  X  X  X
XXXX                XXX  XX XXXX X  X  X
X  X                X  X  XX X  X  X  X  X
Xoo X                X  X  XX X  X  X  X  X
XooX                X  X  XXX  X  X  X  X  X
XooXXXXX  XX  XX  X  XX  X  XXX  XXXXXXXX
XooX  XX  X  X  X  XX  X  X  X  Xooo  X
X  X  X  X  X  X  XX  X  X  Xooo  X
XXXXXXXXXX XXX  X  X  XXXXXXXXXooo  X
X  X  X  X  X  X  X  X
X  X  X  X  X  X  X  X
X  X  X  X  X  X  X  X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX >
```

! Press R-B-S-F keys to move.  
! Press E to exit.

YOU LOSE! :(

MENU

Press A For Automaticate PLAY  
Press M For Manual Play  
Press E For EXIT

Exit.

-----  
Process exited after 157.8 seconds with return value 0  
Press any key to continue . . .

## Manual Mode

```
-Simple Areena based maze game in C -  
  
-(For Manual Mood Use the keyboard keys to Move)  
  
-(Press F For Forward)  
-(Press B For Backword)  
-(Press R For Upp)  
-(Press S For Down)
```

### MENU

```
Press A For Automaticate PLAY  
Press M For Manual Play  
Press E For EXIT
```

Number of moves: 22

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  
                                X           X  X  
XXXX XXXXXXXXXXXXXXXXXXXX X           X  
XX X                        XX X       X  X  
XX X                      X X X X X X   X XXX  
XX XXXXX                X XX X X X X   X  X  
XX                      X XX X X XX XXXXX X  
XX                      X XX X X X X X   X  
XXXX                  XXX XX XXXX X X   X  
X X                  X X XX X X X X X   X  
Xoo X                X X XX X X X X X   X  
XooX                 X X XXX X X X X X   X  
XooXXXXX XX XX X XX X XXX XXXXXXXX  
XooX XX X X X XX X X X Xooo X  
X X X X X X XX X X Xooo X  
XXXXXXXXXX XXX X X XXXXXXXXooo X  
X      X              X              X  
X X  X X  X          X              X X  
X X  X X  X          X      X      X X  
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX> >
```

```
! Press R-B-S-F keys to move.  
! Press E to exit.
```



Number of moves: 53

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                X                X  X
XXXX XXXXXXXXXXXXXXXX X                X
XX X                XX X                X  X
XX X                X X X X X X                X XXX
XX XXXXX                X XX X X X X                X X
XX                X XX X X XX XXXXX                X
XX                X XX X X X X X                X
XXXX                XXX XX XXXX X X                X
X X                X X XX X X X X                X
Xoo X                >X X XX X X X X                X
XooX                X X XXX X X X X                X
XooXXXXX XX XX X XX X XXX XXXXXXXX
XooX XX X X X XX X X X Xooo X
X X X X X X XX X X Xooo X
XXXXXXXXXX XXX X X XXXXXXXXXooo X
X                X                X
X X X X X                X X X
X X X X X                X X X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX >

```

! Press R-B-S-F keys to move.

! Press E to exit.

--> !! You hit the wall. !!

Number of moves: 21

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                        X           X   X
XXXX XXXXXXXXXXXXXXXXXX X           X
XX X                      XX X      X   X
XX X                      X X X X X X   X XXX
XX XXXXX                X XX X X X X   X   X
XX                      X XX X X XX XXXXX X
XX                      X XX X X X X X   X
XXXX                  XXX XX XXXX X X   X
X X                  X X XX X X X X X   X
Xoo X                X X XX X X X X X   X
XooX                 X X XXX X X X X X   X
XooXXXXX XX XX X XX X XXX XXXXXXXX
XooX XX X X X XX X X X Xooo X
X X X X X X XX X X Xooo X
XXXXXXXXXX XXX X X XXXXXXXXooo X
X      X          X          X
X X  X X  X          X          X X
X X  X X  X      X      X      X X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX >>
```

! Press R-B-S-F keys to move.  
! Press E to exit.

YOU WIN! :)

#### MENU

Press A For Automaticate PLAY  
Press M For Manual Play  
Press E For EXIT

Exit.

-----  
Process exited after 260.4 seconds with return value 0  
Press any key to continue . . .

Number of moves: 0

```
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                X                X  X
XXXX XXXXXXXXXXXXXXXXXX X                X
XX X                XX X                X  X
XX X                X X X X X X                X XXX
XX XXXXX                X XX X X X X                X  X
XX                X XX X X X XX XXXXX X
XX                X XX X X X X X                X
XXXX                XXX XX XXXX X X                X
X X                X X XX X X X X X                X
Xoo X                >X X XX X X X X X                X
XooX                X X XXX X X X X                X
XooXXXXX XX XX X XX X XXX XXXXXXXX
XooX XX X X X XX X X X Xooo X
X X X X X X XX X X Xooo X
XXXXXXXXXX XXX X X XXXXXXXXooo X
X                X                X
X X X X X X                X X X
X X X X X X                X X X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX >
```

! Press R-B-S-F keys to move.  
! Press E to exit.

--> !! You hit the wall. !!

YOU LOSE! :(

MENU

Press A For Automaticate PLAY  
Press M For Manual Play  
Press E For EXIT

Exit.

-----  
Process exited after 24.95 seconds with return value 0  
Press any key to continue . . .

## Simple Exit

```
Exit.  
-----  
Process exited after 1.742 seconds with return value 0  
Press any key to continue . . .
```