

GameBot 2 - Connect 4

The game selected is Connect 4.

This time we have written the code to run in plain Graphis.h and also using OpenGL. We have the code variation for Ubuntu and Windows as well. You can select the platform you are comfortable with and use it to develop the bot.

The environment is in the “game.c” file (or game.cpp). This file contains all the details about the functions and the variables used. It has comments explaining all the relevant steps and no other documentation is required. Along with this file we have also provided the sample bot codes as well. This is just for you to get started and for testing purposes.

All you have to do is write the bot1() function in the game.c file. For bot2() you can use any of the sample bots. The bot1() function takes the current state of the game as input and returns the next move to be made.

In the event we will use the code from one team as bot1() and another team code will be made bot2(). This way all the teams will compete in league fashion.

Explanation of the variable “grid” : (see game.c file)

It is a 2D integer array.

grid[6][7] : this stores the current state of the game.

grid[i][j]==0 means that particular place is not occupied by any piece

grid[i][j]==1 means that particular place is occupied by player 1 (or bot 1) piece

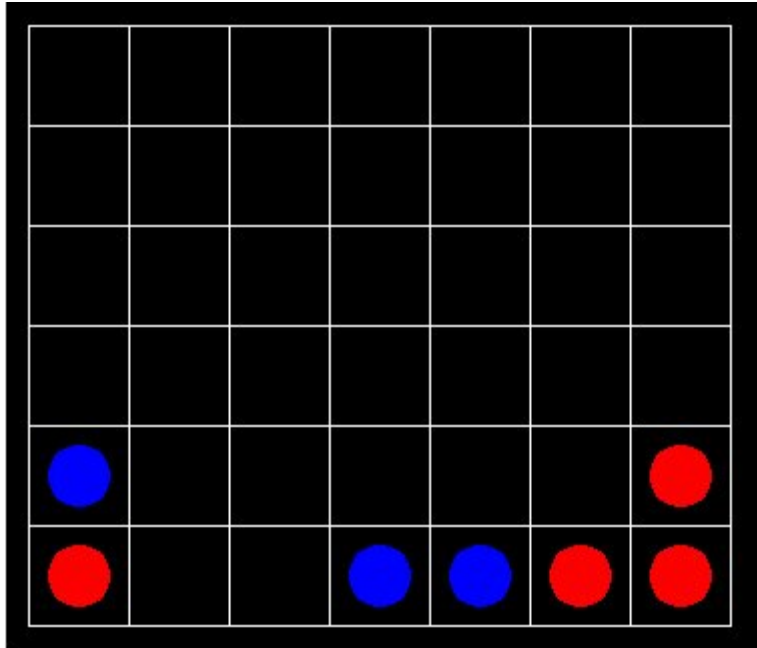
grid[i][j]==-1 means that particular place is occupied by player 2 (or bot 2) piece

Example :

If the grid content is :

```
{{0,0,0,0,0,0,0},
{0,0,0,0,0,0,0},
{0,0,0,0,0,0,0},
{0,0,0,0,0,0,0},
{0,0,0,0,0,0,0},
{-1,0,0,0,0,0,1},
{1,0,0,-1,-1,1,1}};
```

Then corresponding game state is :



Installation steps : (you can choose to code in any OS in any language given below)

For Graphics.h in Ubuntu :

Refer this blog for installation and compilation of code : [Link](#)

For OpenGL in Ubuntu :

Refer this blog for installation and compilation of code : [Link](#)

For Graphics.h in Windows :

Refer this blog for installation and compilation of code : [Link](#)

For OpenGL in Windows :

Refer this blog for installation and compilation of code : [Link](#)

You can also run the code in turbo C in windows with minor changes to the code.

NOTE :

If there is any error in the code uploaded or if the code you have written is not working as you expected it to work (maybe due to some logical error in your code or the code uploaded) then you are free to send us the game.c file for verification.

If there is any problem with the installation or compilation process then do drop a mail explaining the problem.

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