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**Code used**: Java

**Requirements:**

Java Compiler which can be downloaded here: [Java Downloads for All Operating Systems](https://www.java.com/en/download/manual.jsp)

**Instructions:**

* Open a terminal and use cd command to set the directory to the Part2 file in the extracted folder.
* Use *javac board.java maxconnect4.java ai.java* to compile the program.
* To run the program, use the command:

*java maxconnect4.java interactive <input file> <Computer-next/human-next> <depth>* for Interactive Mode

and for One-Move Mode use:

*java maxconnect4.java one-move <input file> <output file> <depth>*

* If insufficient or excessive number of arguments are entered, the program will instruct you to enter correct number of arguments.

**Program Structure:**

The code takes the parameters: Game Mode, Input file, Whose turn it is to play next or the output file depending on the mode and the depth level to find implement the Max Connect Four game.

The program is divided into 3 subprograms: board, ai and maxconnect4

1. *board.java* is the program which contains all the game playing functions necessary for the code such as displaying the game board, calculating the score, and keeping track of whose turn it is.
2. *ai.java* contains the decision making part of the program where the next move is decided based on the current board layout by using Min-Max with Alpha-Beta pruning.
3. *maxconnect4.java* is the main implementation of the game where it calls on functions and methods in *board.java* and *ai.java* to implement the actual board to play the game.

**References:**

* [**https://github.com/topics/java-project**](https://github.com/topics/java-project)
* [**https://stackoverflow.com/questions/tagged/java**](https://stackoverflow.com/questions/tagged/java)
* [**https://freesoft.dev/program/**](https://freesoft.dev/program/)