

Designing a GUI

(Blackboard Lecture)

CS 1025 Computer Science Fundamentals I

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Design Session

- We decomposed the task of building a Minesweeper-like game.
- We identified what the main parts could be and what would be the main ingredients of each part.
- We identified how information and control should flow among the parts.
- We identified which sub-problems were trivial and which were harder.
- We determined the only tricky part would be the method to open a region when a square with no neighbouring mines is clicked, discussed several methods to solve that, and developed one in detail.

Sample Code

- A sample solution is posted in the directory
<http://www.csd.uwo.ca/~watt/home/courses/2008-09/cs1025a/examples/minefield/>
- This is intended to capture what things would look like in mid-development.
 - The methods for losing a game, etc, are stubs
 - The squares have text on them with debug info, not pretty icons.
- The files are:
 - MineFieldGame.java -- Launches the game
 - MineBoardData.java -- The game board without GUI
 - MineBoardGUI.java -- Graphical user interface. Uses MineBoardData.
 - MineBoardSquare.java -- The object that represents the squares in the GUI.