

For this project, you will create a text-based computer game. It is recommended that you use an existing game as the basis for your program. You may also create your own game, but this option has the added responsibility of (a) the creative process to make a reasonable game, and (b) producing documentation for the game itself.

Games involving dice, cards, letters, and words provide good candidates. The following list provides some examples of games that are suitable for this project.

- Yahtzee
- Hangman / Wheel of Fortune
- Jeopardy
- Mastermind

Some games or concepts will require additional research beyond what you have covered in the course. Some students will be interested in exploring graphics. Other games are well-suited to the use of two-dimensional arrays. It is important that you select a game that is within your abilities. Additional candidate games could include

- Battleship
- Tic-Tac-Toe
- Checkers / Chess
- Minesweeper

Proposal:

You need to have a written plan of how you plan to write your program. Think of intermediate goals that will demonstrate progress. If you run out of time you will still have a working program that will just lack some features. A rough draft of your proposal, outlining your idea, must be submitted by Wednesday, January 5th. The final proposal of your project must be submitted by Monday, January 10th. You must provide a description of your game and a rough outline of the programming concepts you will use to implement the various parts of the game.

Program requirements:

1. All code must be clearly documented.
2. All code must be neatly formatted.
3. Logical and efficient use of variables is required.
4. The program should make use of all programming concepts covered in the course.
5. The program should be as crash-proof as possible. You must submit a test plan and test data which demonstrates how you checked for stability.
6. A flow-chart depicting the logic of your program (using the Smart Ideas software or neatly drawn by hand).
7. A complete printout of your program will be submitted

Grading:

- 20% of your final mark will consist of the external documentation, proposal, flowchart and user guide of this program, this will be included in your term mark.
- the internal documentation, code and quality of your game will count for approximately 80% of your final mark. Your mark will reflect the way in which you have integrated the programming concepts that you have learned in this course. (eg. arrays, methods, data types, conditions, selection statements, loops, etc.).