

## Comp 170 Project Ideas

You will define, create, invent, program, test, and review a java program to do something you pick!

1. What Will You Do?
  - a. You can do anything
  - b. Don't worry, I'll help you decide if it is too easy or too hard!
  - c. To prompt your thinking, here are some ideas.
2. Games
  - a. Tic Tac Toe is a good game and can be done in console IO. Play two person or person against computer. You can even try some AI if you do a computer playing
  - b. Adventure with rooms and text input. "You are in a room with a table, chair and a door"...
  - c. Find way around a maze or puzzle (make a matrix of Xs to show the maze and mark current and past locations with a \*)
3. Helping Apps
  - a. Keeping a To Do or Grocery List. Things that are A user interface that allows full demonstration and testing of the app.needed and mark when complete...
  - b. Keep track of something you like, maybe clothing, baseball scores, cars,...
  - c. Help or advice on how to improve your mood, get up on time,...
  - d. An app to guide your prayers....
4. Something that might help in another class, project, ..

Other Resources and things to keep in mind:

1. Arrays make good containers. It's easy to make an array of other objects, e.g. and array of People objects.
2. Other containers you may want to check out ArrayList, List, Deque (see the text).
3. Random numbers are very useful for things (making up a new something, giving your program unexpected or not always the same behavior). See Math.random and the class Random for two approaches.
4. Files and simple text IO are the best way to have your program remember something. You can also generate input to your program with Notepad or Wordpad instead of doing it all in code.
5. Explore graphics if you wish starting with the chapters in the book.
6. Draw a basic UML diagram and define associations and key methods for each class. A nice tool is draw.io

V2.0 Java Edition March 2017.

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Complete these items for your project plan:

