For the final project in this course, you are to create a piece of useable software that implements many of the concepts that you have learned in this course.  You should strive to use as many concepts as possible to show your understanding and ability to apply them in an application.  Your project must be approved by your teacher. Students will be working individually or in groups (up to a maximum of three students per group).

**Part 1 – Requirements**

* Brainstorm final project ideas
* Narrow down your ideas and select a final topic – requires teacher approval BEFORE submission
* Complete the “Requirements” document and submit to the *Requirements* Dropbox
* **Due Date: December 11th**

**Part 2 – Design**

* Create potential screen layouts/menu designs for the interface
* Outline the classes/modules/functions that you will create and their role in the application
* Evidence of clear division of labour – requires teacher approval BEFORE submission
* Complete the “Development Plan” document and submit to the *Development Plan* Dropbox
* **Due Date: December 18th**

**Part 3 – Implementation**

* Begin coding – you are strongly encouraged to code over the break
* The Development Plan document must be updated and submitted every Friday (Jan 8th, 15th and 22nd) into the *Development Plan* Dropbox
* Remember to submit your code every day – in its current state – to the   
  *Daily Check In* Dropbox. Only submit those files that have changed from the previous submission.
* Failure to submit your work every day may lead to questions concerning authorship – it is very important that you do this check in every day
* **Due Date: January 19th** (Note: This is not the final submission. Your app needs to be ready for testing on this date)

**Part 4 – Testing**

* Ongoing unit testing is strongly encouraged during the implementation phase. The testing that is to be completed in this phase is system testing and it is to take place AFTER you feel that your application is basically ready to be released.
* Create a test plan using the “Test Plan” template. Your test plan should contain test cases for both the GUI and the back end algorithm. Run these test cases and log the results. Submit this completed document (one per group) to the *Testing* Dropbox. This can be completed before January 20th if your application is ready before that date to test.
* Create a test plan for an external tester (it could be very similar to your group’s test plan). Two people outside your group need to run these test cases and log the results.Submit these completed documents (one from each external tester) to the *Testing* Dropbox.   
  **InClass: January 20th**

**Part 5 – Final Release**

* Create a User Manual or User Guide for your application (i.e. explains how to use the application and its features).  Submit to the *Final Release* DropBox*.*
* Collect all .py files plus any image files, text files, etc. that are required to run your application. Submit everything to *Final Release* Dropbox.
* **Due Date: January 22nd**