

## Program Planning

Programming is a long process that involves a lot of planning prior to writing any code. The first step is the program plan. Many systems are developed by following the Systems Development Life Cycle (SDLC). The program planning for CSC135 will consist of five steps, with some of the steps being the first three steps of the SDLC. You are required to do each of these steps for your program.

1. Problem Statement – a statement of the problem you are solving. This should be a sentence or two.
2. Analysis – list the following:
  - a. Inputs
  - b. Outputs
  - c. Constants
  - d. Formulas
  - e. Constraints (enforced by your program)
  - f. Assumptions (not enforced by your program)
3. Design – the program design, either in hierarchical (outline) or flowchart form
4. Test plan – how you plan on testing your program (input values you will enter and expected output). You must include values for at least three test runs. You should also consider invalid values (based on your constraints).
5. Time estimates – list the tasks involved, such as write program, get program to compile, test program, etc. and the estimated time you think each task will take to complete