CSE 3311 Software Design
Report 4: Specification
Due: Thursday, November 20
Where: In class
If the class has begun your report is late

1 Main Points

Be sure to read and follow all the guidelines from the links on **reports** and **academic honesty** from the WWW home page for the course. The specification is the union of this document plus the program text you are given.

1.1 Learning objectives

- Design patterns – Singleton
- Design description and documentation
- Critiquing a design

1.2 To hand in

Hand in, in class, the following items as one package. If the package is too big to staple as one unit, then please staple in multiple parts. Cover page plus the first part of your report is part 1 of N, the remaining are parts x of N. Include your name(s) on each part. The report is required for your work to be evaluated. The electronic submission is used to run your system but with no report, the electronic submission is ignored.

- Cover page – printed from the course web pages
- Design document
- **Do not include** listings of the classes. There are many files with small changes and it is a waste of paper to print all affected files. See the lead paragraph in Section 2.

1.4 To get started

Download the file **3311_report4.tar.gz** to a local directory.

2 Tasks

In all the files you modify add the comment **"-- New"** at the end of a line to make it easier for a reader to see what you have changed or inserted. For statements that you remove, comment out the statement and at the end of the line add the comment **"-- NEW commented out"**.

In your design document include the following items:
- a discussion comparing and contrasting the use of a global constants class with and without the use of the singleton pattern;
- a discussion comparing and contrasting the use of the singleton pattern for the CONSTANTS class.

2.1 Singleton pattern

Make the class CONSTANT into a singleton class and modify all appropriate CLASSES.

2.3 Testing

For both electronic and hardcopy you do not create nor submit test cases.

3 Grading scheme

The grade for the report is partitioned into the following parts.

1. Identifying all constants – 40%
2. Implementation of Singleton pattern – 50%
3. Report with BON – 10%