Software quality master rubric

The rubric on the next page collects all the grading criteria from the CSSE376 final project. These items **may be new** to CS majors and to SE majors who deferred taking CSSE376.

In 376, individual grade items on the list were generally graded using a **pass/fail basis**, with the bar being about **80% correctness for each checkbox**. Grade items were arranged in the rubric in increasing order of sophistication akin to the style of "mastery" assessment.

To earn a given letter grade, students should demonstrate proficiency in the work presented under that letter grade and all lower letter grades.

D: Deficient

- ☐ <u>Definition of done</u> accurately indicates progress toward completeness, but project is not complete.
- ☐ Project is usable through the GUI, from start to end of **some key use case**.
- ☐ Team has a code quality standard with cursory evidence of a review process to meet that quality.
- ☐ Cursory evidence of a TDD/BDD workflow.
- ☐ Automated testing may indicate some failures.
- ☐ Only support for one locale/no easy way to add more without changing code.

C: Satisfactory

- ☐ Project is **mostly done**.
- ☐ Project demonstrates evidence of a satisfactory TDD/BDD workflow.
  - o 100% mutation and basis path coverage of all non-GUI code.
  - o All tests pass and accurately capture their stated intent.
  - o Commit log may show evidence of a "mutant killing spree" to correct process failures.
- ☐ Project supports multiple locales.
  - o The project should support easily adding **new** locales without changing **any** existing code.
  - o All strings and quantities can be translated to a locale.

B: Very Good

- ☐ Project is **done**.
- ☐ Code fully meets team's <u>code quality standard</u>.
- ☐ Team's definition of done involves appropriate techniques for deciding doneness.
- ☐ Definition of done is explicitly traced to concrete evidence of done, like Issues, Merge Requests, or test cases.

A: Excellent

- ☐ Code fully meets Martin's quality standards.
- ☐ Excellent TDD/BDD workflow - coverage and mutants continually monitored and kept under control.
- ☐ Team used appropriate automation to verify that code meets quality standards.