

## CS362, Software Engineering II

### Final Project Part B

#### Final Project Part B – Dominion Unit Test/Fix Bugs

##### Github

(5 points)

1. Decide which student repository to use as a team. You will create two branches in this repository as directed below.

##### Create Unit Tests

(45 points)

Use your Test Plans from the Final Project Part A to create Unit Tests for each bug.

1. Create a studentonid-finalproject-bugs branch from the Master branch. Check out the studentonid-finalproject-bugs branch and create a folder under the projects folder called FinalProject-Bugs. Copy the dominion folder from the root folder into the FinalProject-Bugs folder. This dominion folder will have the original dominion source code but will not have any refactored code.
2. Create Unit Tests for each Bug Report using the Test Plan developed in Part A. Create the Unit Tests in the projects\FinalProject-Bugs\dominion folder.
3. Create a makefile and add a rule named “**unittestresults**” that will generate all the Unit Test source files, the dominion code, execute all the Unit Tests, and append complete test results including code coverage into a file called **unittestresults.out**. Use the gcov command options to produce coverage on **branches** and **functions** (-b -f). The .out file will contain the output of your tests along with coverage information.
4. Run the makefile to execute the Unit Tests and report the results. You should expect your asserts to fail.
5. In a document called ‘Final Project PartB’, document each Unit Test in a section called ‘Unit Tests’.
6. Push the studentonid-finalproject-bugs branch to github.

##### Fix Bugs and Verify

(45 points)

Fix the bugs and run the Unit Tests to verify the bugs are fixed.

1. Create a studentonid-finalproject-bugfree branch from the studentonid-finalproject-bugs branch. Check out the studentonid-finalproject-bugfree branch and create a folder under Projects called FinalProject-BugFree. You should now have two folders under projects called FinalProject-Bugs and FinalProject-BugFree. Copy the dominion Folder from the FinalProject-Bugs folder into the FinalProject-BugFree folder. This dominion folder will have the Unit Tests you created.
2. Fix the bugs identified in the Bug Reports. The fixes will be made in the projects\FinalProject-BugFree\dominion folder.

3. Run the makefile in the projects\FinalProject-BugFree\dominion to execute the Unit Tests and report the results. You should expect your asserts to pass.
4. In the document called 'Final Project PartB', document each Bug Fix in a section called 'Bug Fixes'.
5. Push the studentonid-finalproject-bugfree branch to github.
6. Play the game several times and verify that the game now works according to the game documentation for the bugs identified in the Bug Reports. Report the results in the 'Bug Fixes' section in the format below.

	Verified	Notes
Bug 1		
Bug 2		
Bug etc		

### Describe Team Work:

**(5 points)**

Document the contribution of each of the team member in a section called 'Team Work'.

	Unit Test	Bug Fixes
Bug 1		
Bug 2		
Bug etc		

### Deliverables:

1. Push branch studentonid-finalproject-bugs and studentonid-finalproject-bugfree to github before the due date to receive credit.
2. Upload a document named 'Final Project PartB.pdf ' to Canvas. Only upload **ONE** submission for each group. Write your names and onids for all group members in the Canvas comment AND the pdf files.
3. Add a Comment in the Comments Box and provide the URL for the GitHub repository, studentonid-finalproject-bugs and studentonid-finalproject-bugfree branches. **(-10 points** for missing it).