Merrik Wright   
CS405  
  
  
 To complete this milestone, I used VS and did the tests using the Google Test framework. I ensured proper test naming and documented each test case to reflect either positive or negative behavior. I used ASSERT\_ macros for critical tests and EXPECT\_ macros for validations where the program could continue execution. I added coverage for core vector operations like resize, clear, erase, and reserve, as well as bounds-checking behavior with at() for negative testing. Additionally, two custom tests were added: one to confirm push\_back() increases size, and another to simulate safe behavior when calling pop\_back() on an empty vector.

Issues Found:

Improper use of .at() resulted in a std::out\_of\_range exception, handled with ASSERT\_THROW.

pop\_back() on an empty vector is undefined behavior, so I guarded the call instead of allowing a crash.

Forgetting to comment out the always fail test. After commenting no issues.

Debugging Method:  
 Tests were iteratively compiled and executed using the Test Explorer. Failures were isolated by reviewing assertions, and fixes were made to ensure all test cases passed. Green bars in Test Explorer confirmed test success.



