```
Running main() from D:\a\_work\1\s\ThirdParty\googletest\googletest\src\gtest_main.cc
[==========] Running 15 tests from 1 test case.
[----------] Global test environment set-up.
[----------] 15 tests from CollectionTest
[ RUN      ] CollectionTest.CollectionSmartPointerIsNotNull
[       OK ] CollectionTest.CollectionSmartPointerIsNotNull (0 ms)
[ RUN      ] CollectionTest.IsEmptyOnCreate
[       OK ] CollectionTest.IsEmptyOnCreate (0 ms)
[ RUN      ] CollectionTest.CanAddToEmptyVector
[       OK ] CollectionTest.CanAddToEmptyVector (0 ms)
[ RUN      ] CollectionTest.CanAddFiveValuesToVector
[       OK ] CollectionTest.CanAddFiveValuesToVector (0 ms)
[ RUN      ] CollectionTest.MaxSizeGreaterThanOrEqualToSize
[       OK ] CollectionTest.MaxSizeGreaterThanOrEqualToSize (0 ms)
[ RUN      ] CollectionTest.CapacityGreaterThanOrEqualToSize
[       OK ] CollectionTest.CapacityGreaterThanOrEqualToSize (0 ms)
[ RUN      ] CollectionTest.CanResizeIncreaseCollection
[       OK ] CollectionTest.CanResizeIncreaseCollection (0 ms)
[ RUN      ] CollectionTest.CanResizeDecreaseCollection
[       OK ] CollectionTest.CanResizeDecreaseCollection (0 ms)
[ RUN      ] CollectionTest.CanResizeToZero
[       OK ] CollectionTest.CanResizeToZero (0 ms)
[ RUN      ] CollectionTest.ClearErasesCollection
[       OK ] CollectionTest.ClearErasesCollection (0 ms)
[ RUN      ] CollectionTest.EraseErasesCollection
[       OK ] CollectionTest.EraseErasesCollection (0 ms)
[ RUN      ] CollectionTest.ReserveIncreasesCapacity
[       OK ] CollectionTest.ReserveIncreasesCapacity (0 ms)
[ RUN      ] CollectionTest.OutOfRangeThrowsException
[       OK ] CollectionTest.OutOfRangeThrowsException (0 ms)
[ RUN      ] CollectionTest.CanAddDuplicateValues
[       OK ] CollectionTest.CanAddDuplicateValues (0 ms)
[ RUN      ] CollectionTest.AccessEmptyCollectionThrowsException
[       OK ] CollectionTest.AccessEmptyCollectionThrowsException (0 ms)
[----------] 15 tests from CollectionTest (5 ms total)

[----------] Global test environment tear-down
[==========] 15 tests from 1 test case ran. (6 ms total)
[  PASSED  ] 15 tests.

C:\Users\bryce\OneDrive - SNHU\(CS-405)\UnitTestExample\Debug\UnitTestExample.exe (process 44452) exited with code 0.
Press any key to close this window . . .
```
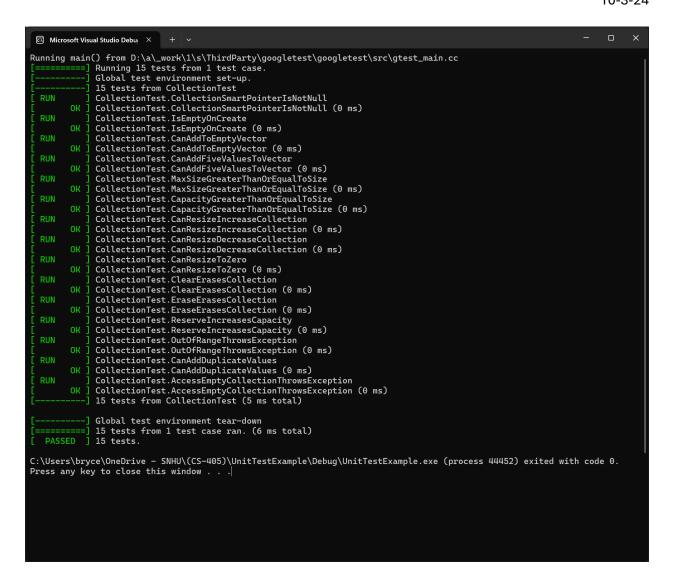
To complete the task, I followed these steps:

1. I created the required unit tests based on the provided collection. This required a mi9x of adding values to the vector, verifying properties like size and capacity, and testing for exceptions when invalid operations were attempted.

2. I verified correct behaviors for positive tests like adding values and resizing the collection vector. For negative tests, I introduced conditions such as accessing an out-of-bounds index or throwing an exception, ensuring the code handles errors correctly.

3. I used ASSERT_XX for conditions where failure should stop execution. I also used EXPECT_XX when checking non-critical assertions where the test should continue.

4. I also defined two additional tests, one positive and one negative test each. The positive tests verified that duplicate entries can be added to the collection vector. The negative test verifies that attempting to access an element from an empty vector throws an exception.