Unit Testing Progress Report for EasyGraph

July 1, 2025

1 Coverage Statistics

The table below compares the coverage before and after the recent testing improvements:

Table 1: Test Coverage Improvement

Metric	**Before**	**After**
Total Number of Tests	261	786
Classes Module Coverage	57%	67%
Functions Module Coverage	38%	67%

2 Visualizations

2.1 Growth in Total Number of Tests

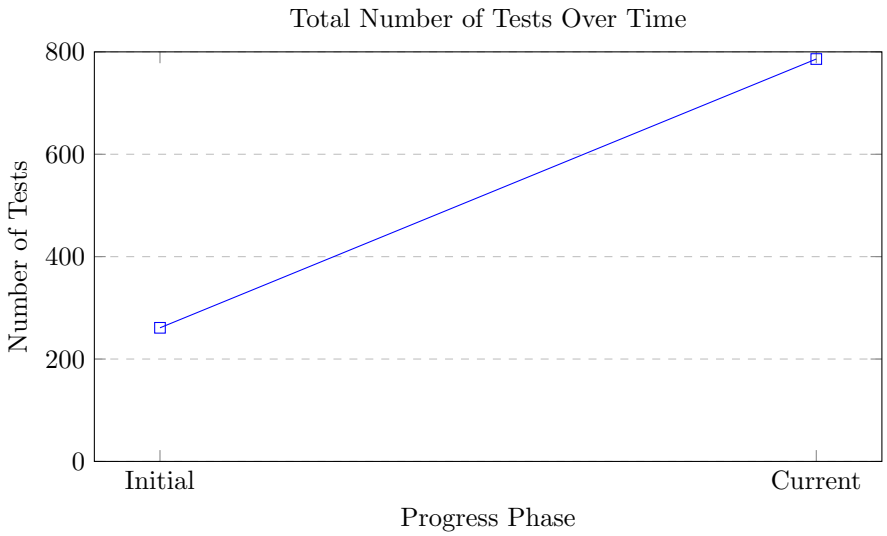

Figure 1: Growth in Total Unit Tests

2.2 Coverage Improvement by Module

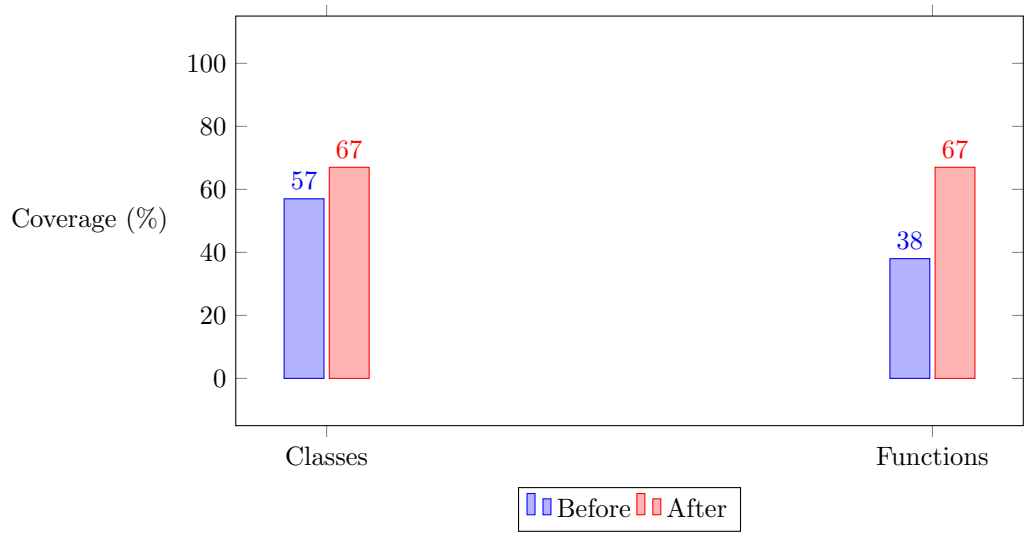

Figure 2: Code Coverage Improvement by Module

3 Coverage Report Screenshots

3.1 Total tests comparison

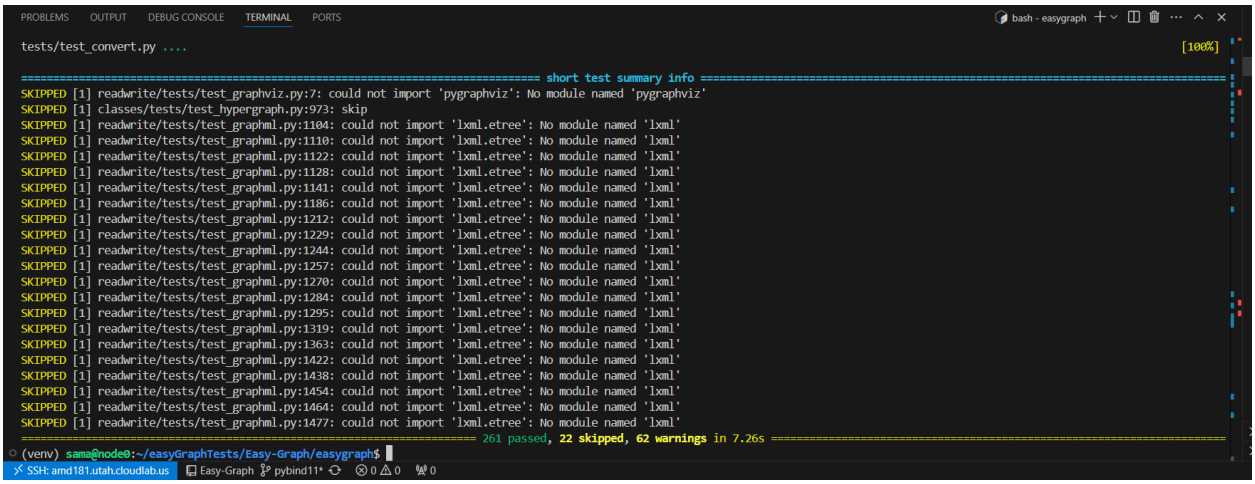

Figure 3: Previous total tests

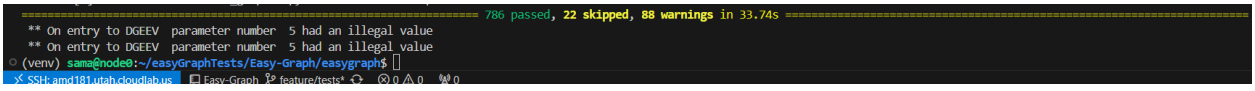

Figure 4: Current total tests

3.2 Classes module test coverage comparison

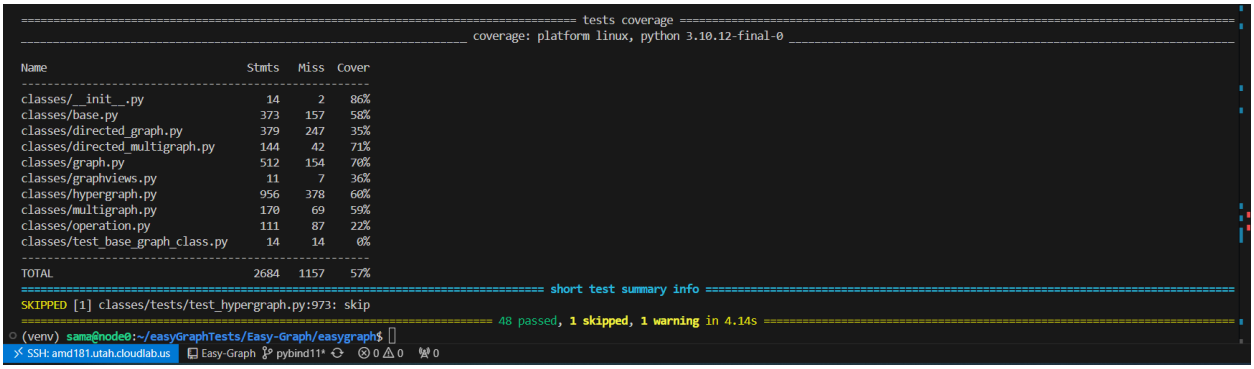

Figure 5: Previous classes test coverage

Figure 6: Current classes test coverage

3.3 Functions module test coverage comparisson

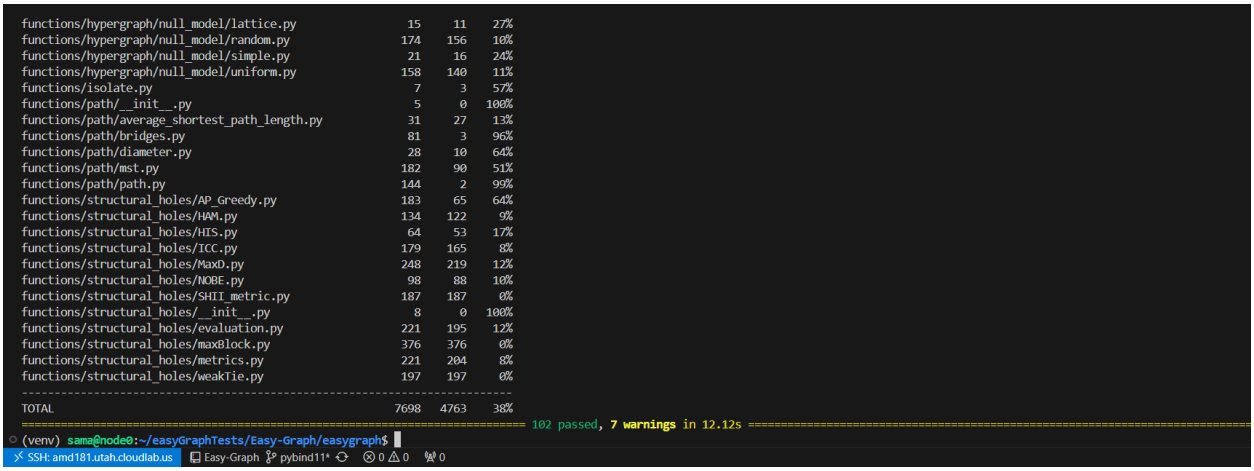

Figure 7: Previous functions test coverage

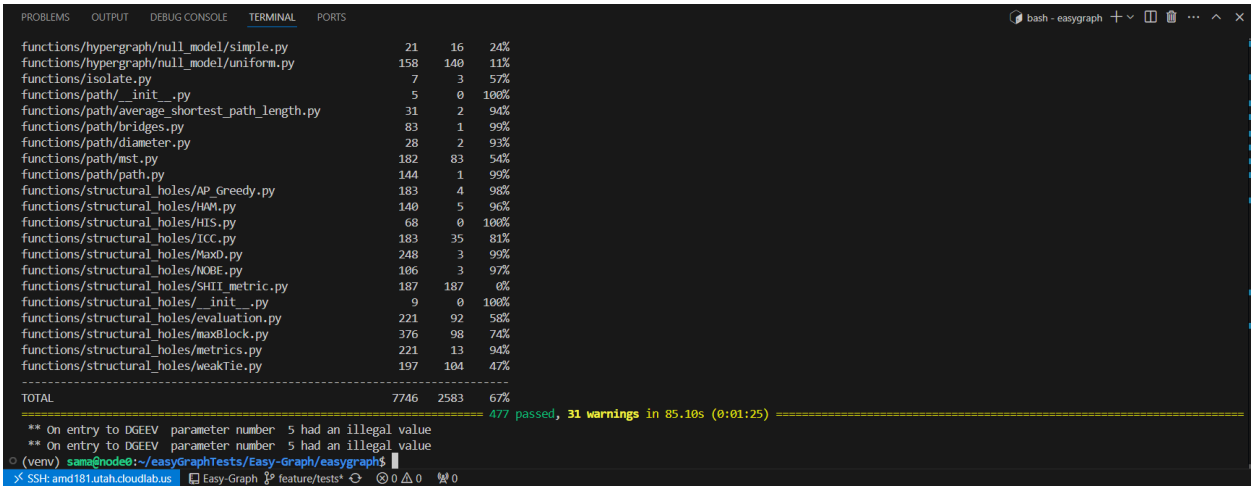

Figure 8: Current functions test coverage

4 Conclusion

The number of unit tests in EasyGraph increased by over 3×, from 261 to 786. Test coverage for the `classes` module rose from 57% to 67%, and for the `functions` module from 38% to 67%. These improvements significantly enhance code reliability, encourage safe refactoring, and contribute to the long-term quality of the project.