Unit tests

Unit testing is a type of software testing in which individual components/units of a software are tested. This allows for validation of the functionality of the individual components. There are various benefits to unit testing;

* It increases confidence in changing/maintaining code. When well written unit tests are run on every system change, errors can be caught quickly preventing these changes from being added to version control.
* It makes code more reusable. This is as a result of the forced format which code is forced into in order to make unit testing possible.
* Generally, the cost of fixing an error is lessened in terms of time and effort for unit tests in comparison to normal debugging. The is because unit tests make the location of the error immediately apparent.
* It provides a basic documentation of the system. Reading unit tests gives developers a better understanding of the features being tested within the software system.

As a result of these benefits, using unit testing for the system made sense. Unit tests focused on the DatabaseComms class. This was chosen as a focal point due to its extensive use throughout the system. Given that the DatabaseComms class uses all the database networking connection data, the unit test would be covering a major section of the system.

<http://softwaretestingfundamentals.com/unit-testing/>