Task 3

Task 3.1

You need to design tests to prove that the program works as expected.

Create a table for a test plan, with columns for:

- data item tested
- type of test data (to explain why you choose the test data value)
- test data value
- expected output
- actual output.

Complete the test plan.

Data Item Tested	Test Data Type	Test Data Value	Expected Output	Actual Output	Comments
ItemCode	Format Check	s1	Rejected with a message	Accepted	Code corrected and code worked
ItemCode	Length Check	Z12	Rejected with a message	Rejected with a message	Code worked properly
Price	Type Check	abc	System rejects it	System crashed	Make sure only number based entry is done
NumberInStock	Format/Type Check	23.75	System takes 23	System takes 23	Decimal part is dropped by the system
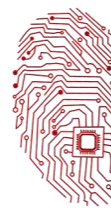
Task 3

Task 3.2

Discuss different testing methods such as black-box, white-box and stub testing.

Black Box Testing

Consider the box to contain the program source code, you don't have access to it and you don't have to be aware of how it works. All you do is input data and test to see if the output is as expected. The internal workings are unknown; they are in a black box. Examples of Black Box testing would be if you were working as a games tester for a new console game. You wouldn't have been involved in the design or coding of the system, and all you will be asked to do is to input commands to see if the desired results are output.

White Box Testing

White Box testing model showing various routes through the code being put to test

With white box testing you understand the coding structure that makes up the program. All the tests that you perform will exercise the different routes through the program, checking to see that the correct results are output.

Stub Testing

In the case of top-down integration testing, many times lower-level modules are not developed while beginning testing/integration with top-level modules. In those cases, Stubs or dummy modules are used that simulate the working of modules by providing a hard-coded or expected output based on the input values.