

CHAPTER - 6

TESTING

Testing is the process of evaluating a system or its components with the intent to find whether it satisfies the specified requirements or not.

6.1 Unit Testing

Unit testing involves design of test cases that validate that the internal program logic is functioning properly, and that the program inputs produce valid outputs. It is the testing of individual software units of the application. It is done after the completion of an individual unit.

Unit tests perform basic tests at component level. Unit tests ensure that each unique path of a business process forms accurately to the documented specifications and contains clearly defined inputs and expected results.

6.2 Test Cases

6.2.1 Unit Testing of Modules

Unit test case 1: Test case for dataset formatting

Name of the test	Test Case for formatting the dataset.
Test Description	A test for checking the dataset is formatted as required.
Sample Input	A dataset file in matlab format.
Expected Output	Displays the dataset after converting to the required format.
Actual result/Remarks	As expected.
Passed (?)	Yes

Table 6.2.1

Unit test case 2: Test case for label generation

Name of the test	Test Case for label generation for the dataset.
Test Description	This test checks for successful generation of labels for the input dataset.
Sample Input	Training samples, testing samples, true label of test samples.
Expected Output	The LDA classifier is trained without much delay and the testing sample are classified with correct labels.
Actual result/Remarks	As expected.
Passed (?)	Yes.

Table 6.2.2**Unit test case 3: Test Case for validate the user input**

Name of the test	Test Case to validate the user input
Test Description	This test validates the user input to the media player using a regular expression.
Sample Input	A string containing binary sequence.
Expected Output	The application validates the string using the regular expression and performs the operations in a sequence.
Actual result/Remarks	As expected.
Passed (?)	Yes.

Table 6.2.3