

**PES. UNIVERSITY**

**Department of Computer Science and Engineering**

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UE17CS355 – Web Technologies-II Lab

Project Phase – II

**Test Report**

Project Title: E-COMMERCE WEBSITE

Section: 6D

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**UNIT TESTING**

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1. **Introduction:**

The project aims to implement an e-commerce website with the usage of certain front-end and backend frameworks and intelligent components. So, I will be doing unit testing with the ‘unittest’ and ‘coverage’ modules in python as tools.

1. **Objective:**

Main objective is to check the functionality, returned status codes, checking the authentication and the image generation. Since I’m doing the unit testing part, I will be checking if the image will be generated for the code I have written. Then I will be checking if I will be able to directly access all the API’s without logging in on the home page. Then I will be checking if the written functions for the API works properly or not. Also, I will check if the recommendation system is working properly or not. All the tests will be conducted by hitting the APIs while the project is running on localhost.

1. **Test Report:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test case No. | Test Case Description | Expected Output | Actual Output | Test Result (Pass/Fail) |
| 1 | Test for checking whether the home page will be called upon calling that API. Will be using assertTrue to check if the status codes are same. | 200 | 200 | Pass |
| 2 | Testing the MySQL connection to our required database. | ‘mysql.connector.connection.MySQLConnection object ’ | ‘mysql.connector.connection.MySQLConnection object ’ | Pass |
| 3 | Test for checking if the API’s are accessible without authentication (check observations for the reason of failure). | 200 | 302 | Fail |
| 4 | Test for checking whether the image was generated from our intelligent component code. | True | True | Pass |
| 5 | Test for checking the output of recommendation system. | ‘[2,4,5,7,16]’ | ‘[2,4,5,7,16]’ | Pass |
| 6 | Test to check whether the items are added to cart. | ‘Successfully added to cart’ | ‘Successfully added to cart’ | Pass |
| 7 | Test to check whether the review was generated. | <tr><td>4</td><td>2020-05-26 00:00:00</td><td>super</td></tr> | <tr><td>4</td><td>2020-05-26 00:00:00</td><td>super</td></tr> | Pass |
| 8 | Test to check whether the autocomplete works. | “Canon EOS 1300D” | “Canon EOS 1300D” | Pass |
| 9 | Test to check whether the like/dislike was added to the product. | ‘{“dislikes”: “0”, “likes”: “1”}’ | ‘{“dislikes”: “0”, “likes”: “1”}’ | Pass |
| 10 | Test to check whether the category API works. | 200 | 200 | Pass |

\*For tests other than authentication, I have bypassed login by commenting out the code of login.

1. **Observation and Conclusion:**

From the above test cases we can see that most of the code works properly. Also look at the test case no.3, this testcase will fail because the user will be redirected to login page if he has not logged in priorly. Indirectly we are checking for the authentication. If the test case fails, then it’s good for us. Lets also look at the status code, 302 means the resource temporarily moved. So, this indicates that without login the user was redirected to login page. Rest of the tests cases easily show the output as expected. So, we can conclude that 90% of the cases have run correctly. The results from coverage using ‘coverage’ module is:

