**Indiana University Southeast**

**2021-22 CSCI Capstone Project**

**Workshop Management Web Application**

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**Test Summary Report**

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Purpose

This document explains the activities performed as part of Testing the Workshop Management Web Application.

Application Overview

The Workshop Management Web Application is designed to management workshops, their participants, and the equipment used in the workshops. There is a login page and a register page available when the user is logged out. Once the user is logged in, they can view all workshops, view all participants, view all equipment, view a workshop, view a participant, and view an equipment item. The user can also add and edit the workshops, participants, and equipment. An image of the equipment can be uploaded.

Testing Scope

1. In Scope
   1. Angular components
   2. Angular routes
   3. Express server
2. Out of Scope
   1. MySQL database

Metrics

1. No. of test cases planned vs executed
2. No. of test cases passed/failed

|  |  |  |  |
| --- | --- | --- | --- |
| **Test Cases Planned** | **Test Cases Executed** | **Test Cases Passed** | **Test Cases Failed** |
| 57 | 57 | 57 | 0 |

1. Number of defects identified and their Status & Severity

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Critical** | **Major** | **Medium** | **Cosmetic** | **Total** |
| **Closed** | 0 | 0 | 0 | 0 | 0 |
| **Open** | 0 | 0 | 0 | 0 | 0 |

Types of testing performed

1. Integration Testing
   1. All 14 components are manually tested to make sure they communicate accurately with the server and route to the correct components.

Test Environment & Tools

|  |  |
| --- | --- |
| Application | Angular |
| App Server | Express |
| Database | MySQL |

The client, server, and database will all be executed locally on the same computer for testing purposes.

Lessons Learnt

|  |  |  |
| --- | --- | --- |
| S. No | Issues Faced | Solutions |
| 1 | Testing the components manually is very time consuming. | Writing unit tests before coding would save time in the long run. |
| 2 | Testing the components manually requires the test to be repeated each time updates are made. | Automating through unit tests would make it quick and easy to test changes to the code. |
| 3 | Manual tests open the door to human error. | Setting up the unit tests would ensure the code is working as intended every time the code was updated. |

Recommendations

* Write unit tests before coding.
* Automate as much of the testing as possible.
* Revisit test cases periodically to ensure that all scenarios are being tested.

Best Practices

* Write unit tests before coding.
* Use automation over manual testing whenever possible.
* Perform unit testing, integration testing, and end-to-end testing to ensure the application is working as intended.

Exit Criteria

* All tests have been executed.
* All tests have passed.
* All defects in Critical, Major, Medium severity should be resolved.

Conclusion/Sign Off

Since the exit criteria has all be met, the Workshop Management Web Application is approved for production. There aren’t any cosmetic irregularities identified at this time. If any are found, they should be able to be quickly resolved by updating the html and css files for the corresponding component.