**IS203 Software Engineering (G7T5)**

**BIOS Bidding System**

**Test Plan**

**Team Members:**

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Teh Ming Yi



**Scope**

This Test Plan will cover the following testing activities:

* Functional Testing
* Regression Testing

**Features to be tested and Responsibilities**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Item to Test** | **Test Description** | **Test Date** | **Functional Testing** | **Regression Testing** |
| **Login** | Carry out validation test for both admin and students before allowing access to BIOS system. | 13-Sep-16 | Ming Yi  Nilofar | Yu Jian  Nilofar |
| **Bootstrap** | Carry out validation tests that an admin will be able to upload and bootstrap valid zip files. Specific file validations will be carried out and validation errors will be printed out. Validated errors will be populated into database. | 16-Sep-16 | Yu Jian  Jackson |
| **Bid for Section** | Carry out specific validations that students can successfully place bids or rebid if he/she dropped the bid during an active round. | 23-Sept-16 | Yu Jian  Nilofar | Yu Jian  Marc |
| **Start and Stop Round** | Check that admin user can successfully start and stop a round manually (except for Round 1, automatically after bootstrap). | 24-Sep-14 | Marc  Ming Yi |
| **Drop Bid** | Carry out checks if students will be able to drop bids they have bidded for during an active round. | 30-Sep-16 | Yu Jian  Marc |
| **View Bidding Result** | Check if the students will be able to view their bid results. | 7-Oct-16 | Jackson  Nilofar | Jackson  Nilofar |
| **Clear Round 1** | Check if the admin can clear round 1, and clear round 1 logic is carried out such that students will get ths status of their bids. | 7-Oct-16 | Jackson  Nilofar |
| **Clear Round 2** | Check if the admin can clear round 2, and if the bids are real-time. When round 2 stops, successful bids will be confirmed. | 8-Oct-16 | Ming Yi  Yu Jian |
| **Drop Section** | Check if students can successfully drop a section they have successfully enrolled in during active round 2. | 23-Oct-16 | Marc  Nilofar | Yu Jian |
| **Admin Web Services #1** | Testers to check that admin user is able to make use of web services to achieve functions. | 23-Oct-16 | Jackson | Ming Yi |
| **Admin Web Services #2** | 25-Oct-2016 | Marc  Nilofar |

Functional testing will be done by the pair programmer who developed the functionality. The testers for regression testing are rotated for each iteration. All bugs highlighted during the integration testing phase must be logged down.

**Test Approach**

Functional Testing

The testing will be performed on localhost after each functionality is developed. This initial round of testing is to make sure the logic of the code works and is bug-free before integrating with other functionalities. The pair programmers in charge of the functionality will be responsible for debugging after the functional testing. All bugs found will be logged down in the bug log.

Regression Testing

After integration of functionalities, regression testing is carried out to ensure the application still runs smoothly and carry out the required functionalities at the end of every iteration. Regression testing will be carried out on both localhost and AWS server before User Acceptance Testing. All bugs found will be logged down in the bug log.

**Testing Procedure**

1. Project Manager of each iteration will be in charge of preparing and updating test cases.
2. Prepare test cases

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Number** | **Description** | **Test Inputs** | **Test Procedure** | **Expected Results** | **Actual Results** | **Status (Pass/Fail)** |
|  |  |  |  |  |  | 13-Sep |
| Login/Logout functionality | | | | | | Functional Test |
| 1 | Validate that a student with correct credentials can login | userid:amy.ng.2009  password: qwerty128 |  | Login successful. Student dashboard shown successfully |  |  |

For each functionality, test cases will be written at the start of the iteration, before the planned debugging dates. Testing will be carried out after development of a functionality. The same set of test cases will also be utilised during Regression Testing after integration of funcationalities.

1. Prepare the test environment

All tests are to be performed on a local machine, with the below hardware & software requirements:

* Windows 7 and above
* 64-bit Operating system
* WampServer64
* NetBeans IDE 8.0.2
* Deployed to AWS
* Chrome Browser

1. Perform the test procedures in test cases
2. If bugs are found, inform current Project Manager and log the bug down in bug log. If a bug is critical, Project Manager can make the call to stop current task and resolve the bug before continuing.
3. Repeat tasks (4) - (5) until all completed functionalities are tested
4. **Bugs have to be fixed during planned debugging sessions. If all bugs are not resolved by the end of the debugging session, programmers should inform Project Manager for further actions taken.**
5. **Perform regression testing after integration of previous functionalities.**
6. **Repeat tasks (4) - (6) and update regression testing file.**