Actor

Ajax page

Equipment class

Database

addEquipment

User fills out form

url

SQL: insert sql

Number of rows

**Requirement Specification**

Faculty can add an equipment using form. Equipment should be added to the table of equipment. If this cannot be done, the user should be informed that an error has occurred.

**Inputs and Outputs**

**Input**: Equipment name Barcode, Equipment description, Date acquired, Lab location, Lab name.

**Output:** Confirmation message stating that new equipment has been added or an error message that the equipment has not been added.

**Classes and Methods**

* Equipment
* add\_equipments

**Constraints**

* The information of all equipments and labs must be stored in a database that is accessible by the website.
* The Online Lab System is running 24 hours a day.
* Users may access Ashlabs from any computer that has Internet browsing capabilities and an Internet connection.
* Users must have the right to enter into their online accounts and do actions.

**Test Cases**

Range of input:-

Equipment name- Alphanumeric

Barcode- Numeric

Equipment description- Characters (2500 character limit maximum)

Lab Name – Character (100 character limit maximum)

Lab Location- Characters (100 character limit maximum)

Test for connecting to database

Test for valid and invalid entry

Test for result

Test overall features of the software. By testing the overall features, the bugs will be fixed.a

|  |  |  |
| --- | --- | --- |
| Unit Test point | Testing | Result |
| SQL statement to add equipment | Write SQL statement with test inputs and run it using phpMyAdmin  Test input:  insert into equipments set   NAME="Microscope",  BARCODE="34568753",  DESCRIPTION='An instrument, such as an electron microscope, that uses electronic or other processes to magnify objects',  DATE='2015-05-24',  LABNAME="Biology Lab",   LABLOCATION="Engineering Lab"  Expected Result: Row inserted | 1 row inserted. (Query took 0.2457 seconds.) |
| addEquipment method in Equipment class | Write a code to create object of the class, call the method with test inputs, and compare output in database.  Test input: Information from the form  Expected Result: Equipment added | Equipment added |
| addEquipment method in Equipment class | Write a PHP unit test to test the code  Input:  Output:  Assert Condition:- assertTrue | OK (1 test, 1 assertion) |

Professional Testing

The add equipment page has an easy-to-fill form that had large spaces to make it simple to fill. The equipment barcode has a constraint to ensure that there cannot be duplicates of the same equipment from being inserted into the table. The page is able to take in valid data and effect the change in the database by adding the equipment to it at the end. It also gives the user due notification that the equipment has been added to the equipment table in the software with a pop up. In the case where the user enters invalid data, it sends an error message and gives the user a chance to input better data.