Actor

addEquipment

Database

Equipment class

User fills out form

Populates the url with information

Confirmation message

Number of rows

SQL: insert sql

Compile insert query SQL

url

**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

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| --- | --- | --- |
| 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:  addEquipment("Equipment Name",//name "2791370", //barcode "Description of equipment",//Description"2016/04/12", //date added "Lab 221", //lab name "Around amphitheatre" //lab location);  Assert Condition:- assertTrue | OK (1 test, 1 assertion) |

Professional Testing

The add equipment page has a form where information concerning an equipment is requested of the user. The information requested includes name, barcode, description of equipment, date added, lab name and lab location. The name of equipment and barcode has no constraints and that means that there can be duplicates of the same equipment. The basic function of the requirement, which is to add, can be done and the equipment is successfully added to the table where there is no error. In the event that there is an error, an error message shows that the equipment was not added.