**CRUD**

The below table list the possible test cases for each of create, read, update and delete component.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SNo | Test Cases | Pre-conditions | Test Steps | Expected Results |
|  |  |  |  |  |
| 1 | Create a new computer |  | 1.Click on “Add new computer”  2.Fill in name say “ABC”  3.Fill in Introduced date in yyyy-mm-dd format  4.Fill in discontinued date in yyyy-mm-dd format  5. Pick a company from dropdown  6. Click on ‘Create this computer’ | 1. An alert message says” Done! Computer ABC has been created”  2. The number of computer existing in db. increases by 1 |
| 2 | Create a duplicate new computer | Same Computer with same details should exist in computer DB | 1.Click on “Add new computer”  2.Fill in any existing name say “ABC”  3.Fill in same Introduced date in yyyy-mm-dd format  4.Fill in same (if any) discontinued date in yyyy-mm-dd format  5. Pick same company from dropdown  6. click on ‘Create this computer’ | 1. An alert message says” Done! Computer ABC has been created”  2. The number of computer existing in db increases by 1 |
| 3 | Create a new computer without name |  | 1.Click on “Add new computer”  2.keep the Computer Name field empty  3.Fill in Introduced date in yyyy-mm-dd format  4.Fill in discontinued date in yyyy-mm-dd format  5. Pick a company from dropdown  6. Click on ‘Create this computer’ | New computer will not get created. The field Computer Name will highlight in color red |
| 4 | Create a new computer with invalid dates |  | 1.Click on “Add new computer”  2.fill in Computer Name field  3.Fill in Introduced date in other format than yyyy-mm-dd say ’17/2/12’  4.Fill in discontinued date in other format than yyyy-mm-dd say ’19/2/13’  5. Pick a company from dropdown  6. Click on ‘Create this computer’ | New computer will not get created. The field Introduced date and Discontinued date will highlight in color red (indicating a user that it needs to be amended) |
| 5 | Create a new computer with big name |  | 1.Click on “Add new computer”  2.Give the Computer Name field as ‘BackbaseAmsterdamNetherlands’  3.leave the Introduced date field as empty  4. leave the discontinued date field as empty  5. Pick a company from dropdown  6. Click on ‘Create this computer’ | 1. An alert message says” Done! Computer ‘BackbaseAmsterdamNetherlands’  has been created”  2. The number of computer existing in db increases by 1 |
| 6 | Create a new computer with single letter name |  | 1.Click on “Add new computer”  2.Give the Computer Name field as ‘B’  3.leave the Introduced date field as empty  4. leave the discontinued date field as empty  5. Pick a company from dropdown  6. Click on ‘Create this computer’ | 1. An alert message says” Done! Computer ‘B’ has been created”  2. The number of computer existing in db increases by 1 |

Read

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SNo | Test Cases | Pre-conditions | Test Steps | Expected Results |
|  |  |  |  |  |
| 1 | Read an existing computer | The computer should exist in db | 1.Click on any computer name  2.Read the name  3.Read the Introduced date in yyyy-mm-dd format  4.Read discontinued date in yyyy-mm-dd format  5. Read the company  6. Click on ‘Cancel’ | Successfully get data from the field |
| 2 | Read a computer by searching it | The computer should exist in db | 1. Search for any computer name  3. Click on ‘Filter by name’ button | The item will be reflected with all the details |
| 3 | Read a computer, where search result gives more than one item | The computers should exist in db | 1. Search for any computer name say ABC  3. Click on ‘Filter by name’ button | All the item matching the search keyword is shown together.  One by one each computer data can be read |
| 3 | Read a computer which doesn’t exist | The computer should not exist in db | 1. Search for any computer name which doesn’t exist  3. Click on ‘Filter by name’ button | There is a message ‘Nothing to display’’ |
|  |  |  |  |  |

Update

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SNo | Test Cases | Pre-conditions | Test Steps | Expected Results |
|  |  |  |  |  |
| 1 | Update an existing computer | The computer should exist in db | 1. Click on existing computer Name say APEXC  2.Update any field say ‘company’  3.Pick a different company from dropdown  4.click on ‘Save this computer’ | 1.An alert message says” Done! Computer APEXC has been updated”  2.The item is updated with new company |
| 2 | Search it and then update it | The computer should exist in db | 1.Search for any computer name  2. Update name field say name to APEXC2  3.Click on ‘Filter by name’ button  4.Click on ‘Save this computer’ | 1.An alert message says” Done! Computer APEXC2 has been updated”  2.The item is updated with new name |
| 3 | Update an existing computer with invalid dates | The computer should exist in db | 1. Click on existing computer Name  4.Fill in discontinued date in another format than yyyy-mm-dd say ’1/2/3’  6. Click on ‘Save this computer’ | 1.Computer will not get updated. 2.The field Introduced date and Discontinued date will highlight in color red (indicating a user that it needs to be amended) |
| 3 | Update an existing computer with an empty name | The computer should exist in db | 1. Click on existing computer Name say APEXC  2.update the Computer Name field as empty  3.Fill in Introduced date in yyyy-mm-dd format  4.Fill in discontinued date in yyyy-mm-dd format  5. Pick a company from dropdown  6. Click on ‘Create this computer’ | New computer will not get updated. The field Computer Name will highlight in color red |

Delete

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| --- | --- | --- | --- | --- |
| SNo | Test Cases | Pre-conditions | Test Steps | Expected Results |
| 1 | Delete an existing computer | The computer should exist in db | 1. Click on any existing computer Name  2.Click on ‘Delete this computer’ | 1.An alert message says” Done! Computer has been deleted”  2. The number of computer in DB, showing at top get reduced by 1 |
| 2 | Search it and then delete it | The computer should exist in db | 1.Search for any computer name  2. click on the computer found  3. Click on ‘Delete this computer’ | 1.An alert message says” Done! Computer has been deleted”  2. The number of computer in DB, showing at top get reduced by 1 |

**Automated Regression Testing (Selenium Web driver)**

Prerequisite

1. Eclipse
2. Browsers (chrome + Mozilla)
3. Browser executables

Automated Tests cases

1. I have picked the basic test cases and negative test cases from each of the component of CRUD.
2. This would help us in catching bugs in regression related to major functionality.
3. It is possible to automate all the test cases from the manual test tables, but to limited time availability limited it to important and major test cases.
4. I have excluded the testcases with big and single letter name from automated list(due to limited time given), but it could be added by using an example in cucumber feature file like for browsers(data driven)

Details about framework

1. The framework is used is SeleniumWebdriver + maven + junit + cucumber
2. To run these tests, one should open the project in eclipse and run the RunnerTest.java as junit test. This contain reference to all the test in form of tags.
3. For creatdbTest.java, it is capable to run on more than one browsers (chrome + Mozilla). To run test on different browser there are more preferred approach like using Grid etc. To show just an example I added it one test in entire test suite.
4. The paths to executables (chromedriver.exe and geckodriver.exe) must be set explicitly as per local path.