

# Netflix - Computers Database App Test Cases

Matthew Schlosser - 9/29/21

## Create:

**Test Case #1: Create a new computer record and verify it displays in the index list of computers.**

### Preconditions:

- Users must have at least Create and Read permissions for the Computers app.

### Steps:

1. Navigate to the Computers app (<http://computer-database.herokuapp.com/>)
2. Click the 'Add a New Computer' button in the top right corner.
3. Fill in the fields with valid data (Name, introduced date, discontinued date, company)
4. Click the 'Create this computer' button. Index page should load and display a success message.
5. In the search filter field, enter the name of the computer you created in steps 1-3.
6. Click the 'Filter by name' button..
7. Newly created computer records should display in the search results.
8. Click the link to the record to view the record's details page.

### Expected Results:

- Newly created computers should display in the index and show the specified intro date, discontinued date, and company.
  - On the details page for the new computer record, the specified intro date, discontinued date, and company should be populated in the product fields.
- 

**Test Case #2: Attempt to create a new record without filling in the required name field and verify that the record is not created. Then, fill the name field and verify that the record can be successfully created.**

### Preconditions:

- Users must have at least Create and Read permissions for the Computers app.

### Steps:

1. Navigate to the Computers app (<http://computer-database.herokuapp.com/>)

2. Click the 'Add a New Computer' button in the top right corner.
3. Fill in the date fields with valid data (Name, introduced date, discontinued date, company)
4. Click the 'Create this computer' button.

Expected Results:

- When the name field is not filled, and the 'Create this computer' button is clicked, an error message should display indicating that the required Name field is not filled.
- After the name field is filled with a value, and the 'Create this computer' button is clicked, the record is successfully created and displays the confirmation message on the index page.

## Read

**Test Case #1: Create a record and verify specified data is present in all locations it is displayed.**

### Preconditions:

- Users must have at least Create and Read permissions for the Computers app.

### Steps:

1. Navigate to the Computers app (<http://computer-database.herokuapp.com/>)
2. Click the 'Add a New Computer' button in the top right corner.
3. Fill in the fields with valid data (Name, introduced date, discontinued date, company)
4. Click the 'Create this computer' button. Index page should load and display a success message.
5. In the search filter field, enter the name of the computer you created in steps 1-3.
6. Click the 'Filter by name' button.
7. The newly created computer record should display in the search results.
  - a. The introduced date, discontinued date, and company displayed in the index table columns should match what was specified in the creation form.
8. Click the link to the record to view the record's details page.
9. Verify that the fields on the details page also match the information specified during the creation of the record.

## Update

**Test Case #1: Update a record and verify that the changes are saved for that record.**

### Preconditions:

- Users must have at least Create, Read, and Update permissions for the Computers app.
- Users must have an existing computer record that they can perform the update operation on. If one does not exist, it must be created.

### Steps:

1. Navigate to the Computers app (<http://computer-database.herokuapp.com/>)
2. Click the link to an existing computer record.
3. On the details page, clear the value of one of the optional fields (Introduced Date, Discontinued Date, Company) and enter a new value.
4. Click the 'Save this computer' button. Index should load with a success message indicating the update was successful.
5. Locate the record you updated, either by searching via the 'Filter by name' function on the index, or by clicking the link if it is already visible. Verify that the listing displays the updated data.

### Expected Behavior:

- Record displays update data in the app index.
- Record's details page now displays the updated data.

## Delete

**Test Case #1: Delete an existing record and verify that the record no longer exists.**

**Preconditions:**

- Users must have at least Read and Delete permissions for the Computers app.
- Users must have (or create) an existing record to delete.

**Steps:**

1. Navigate to the Computers app (<http://computer-database.herokuapp.com/>)
2. Click the link to an existing computer record.
3. On the details page, click the 'Delete this computer' button.
4. Index will load and display the confirmation message for the deletion.
5. In the search filter field, enter the name of the computer you deleted in step 3.
6. Click the 'Filter by name' button.

**Expected Behavior:**

- The deleted record is not returned in the search.

## Edge Cases

### **Test Case #1: Create a record with non-alphanumeric characters**

#### Preconditions:

- Users must have at least Create and Read permissions for the Computers app.

#### Steps:

1. Navigate to the Computers app (<http://computer-database.herokuapp.com/>)
2. Click the 'Add a New Computer' button in the top right corner.
3. In the 'Name' field, enter several non-alphanumeric characters, such as š@œŋ®%ΩΣ.
4. Fill in the rest of the fields with valid data (Introduced date, discontinued date, company)
5. Click the 'Create this computer' button.

#### Expected Behavior:

- Index page should load and display a success message with all characters rendered as expected.
  - Record title should be rendered in app index with no issue.
  - Record title should be rendered on the details page with no issue.
- 

### **Test Case #2: Verify search results header displays correct result number and grammatical use of 'Computers'**

#### Preconditions:

- Users must have at least Read permissions for the Computers app.

#### Steps:

1. Navigate to the Computers app (<http://computer-database.herokuapp.com/>)
2. In the search filter field, enter a search string that will return a single result ("Arra" returns a single result in the gatling.io app)
3. Click the 'Filter by name' button.
4. Repeat steps 1-3, except with a string that will return more than one result.

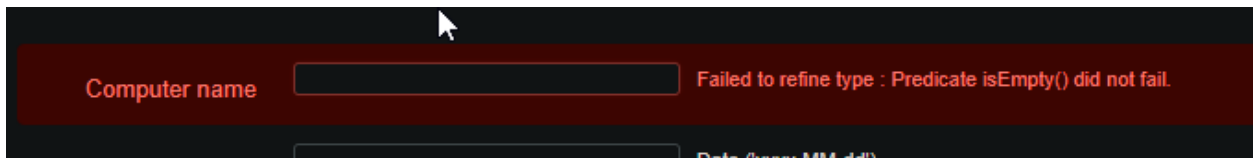
#### Expected Behavior:

- For searches with a single result, the page header should read "One computer found".
- For searches with more than one result, the page header should read " \_\_\_\_ Computers Found".

## Bugs Found

1. Error message for missing required field values in the Create Computer form is a random error message. To recreate:
  - a. Navigate to the Computers app (<http://computer-database.herokuapp.com/>)
  - b. Click the 'Add a New Computer' button in the top right corner.
  - c. Fill in the date fields with valid data (Name, introduced date, discontinued date, company)
  - d. Click the 'Create this computer' button.
  - e. Error message should display that the field is missing a value, but reads "Failed to refine type : Predicate isEmpty() did not fail." instead.

I had to code around this issue, so this text will display in one of my page model files.



The screenshot shows a dark-themed web form. On the left, the text "Computer name" is followed by an empty text input field. To the right of the input field, a red error message is displayed: "Failed to refine type : Predicate isEmpty() did not fail." Below the input field, there is another empty text input field, and to its right, the text "Date (yyyy-MM-dd)" is visible.

## If I had more time...

- I would have created a more elegant solution for random character generation to ensure all new records have unique values, instead of simply numbers (i.e. a date, random characters, etc).
- I would have created automated tests around the pagination controls. These would test that the Previous/Next buttons are enabled/disabled when on the first and last page of the computer listings, and that both buttons are enabled when on page two of at least three pages of results.
- I would have created test specs that only run requests against the API, so in case a call fails, we can hit specific endpoints to better target the failure.
- I would have created automated tests for testing the app's sort feature in order to verify that the records are displayed in the correct order depending on which column the sorting is based on.
- I would have created more automated tests around the validation of inputs for the Introduced/Discontinued fields, as those fields are expecting dates in a specific format.