

Computer Database Test Plan

Summary

Computer Database is a web application that allows the user to view a list of computers that exist in the database with the ability to add new computers, modify and delete existing computers. This document describes the test plan and the test cases required to verify readiness of the system.

Suggestions

The following are suggestions to improve the user experience of the application:

- Notifications to disappear after a few seconds rather than remaining on the page.
- *Delete this computer* feature to show a confirmation pop up when clicked.
- Update pagination to include *First* and *Last*. First will navigate to the first page, and Last will navigate to the last page.
- Improve validation strings in *Add a computer* and *Edit computer* pages.

Browser and Device Support

I'm making the following assumptions:

- Testing should be done only on Google Chrome. If other browsers are supported, testing should be handled on a later stage.
- The System Under Test has a web application presence only, therefore testing on devices other than desktop is not supported.

System Under Test (SUT)

<https://computer-database.gatling.io/computers>

Performance Testing

Performance testing is outside the scope of this document. This can be discussed during the interview or on a later stage.

Testing Setup

- A staging or testing environment is required for manual and automated testing. This is to assume that the provided [SUT](#) falls under this category.
- For automated testing, it's preferred to have control over the testing environment to manipulate the data as needed. This would be very handy in setup steps like clearing and seeding the database every time the tests run.
- The provided [SUT](#) appears to be in a read only mode. Adding, updating and deleting computers don't take effect. Ideally, in testing environments those actions are mandatory to be functional exactly as production environments.

Test cases

Test 1: Filter by name

Setup		
<ul style="list-style-type: none">• Navigate to SUT• The system has existing computers		
No	Step	Expected Result
1	Select a random <i>Computer name</i> from the computers list and make a note of it.	A computer name should be noted.
2	Enter the Computer name obtained from the previous step in the input field with placeholder "Filter by computer name..."	Computer name should be entered.
3	Click on Filter by name .	Only computers that contain the entered computer name should appear on the list.

Test 2: Filter by name - Keyboard Enter

Setup		
<ul style="list-style-type: none">• Navigate to SUT• The system has existing computers		

No	Step	Expected Result
1	Select a random <i>Computer name</i> from the computers list and make a note of it.	A computer name should be noted.
2	Enter the Computer name obtained from the previous step in the input field with placeholder "Filter by computer name..."	Computer name should be entered.
3	Hit Enter on your keyboard	Only computers that contain the entered computer name should appear on the list.

Test 3: Search for a computer that doesn't exist

Setup		
<ul style="list-style-type: none"> Navigate to SUT 		
No	Step	Expected Result
1	Pick a name of a computer that won't exist in the database. E.g. Johnny Depp xyz	A computer name should be noted.
2	Enter the Computer name noted from the previous step in the input field with placeholder "Filter by computer name..."	Computer name should be entered.
3	Click on Filter by name .	A blank page with only the following text should appear: <i>Nothing to display</i>

Test 4: Add a new computer

Setup		
<ul style="list-style-type: none"> Navigate to SUT 		
No	Step	Expected Result
1	Click on Add a new computer button	<i>Add a computer</i> page should open with the following elements: <ul style="list-style-type: none"> Input: "Computer name" with a

		<p>label that says: <i>Required</i></p> <ul style="list-style-type: none"> - Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Drop Down List: "Company" - Button: "Create this computer" - Button: "Cancel"
2	Fill all the input fields and click on Create this computer .	You should be redirected to the main page with the list of computers with a notification that says: "Done! Computer [COMPUTER NAME] has been created".
3	Search for the created computer using the <i>Filter by name</i> feature and verify that the computer exists.	The computer and its fields appear correctly in the table.

Test 5: Cancel adding a new computer

Setup		
<ul style="list-style-type: none"> • Navigate to SUT 		
No	Step	Expected Result
1	Click on Add a new computer button	<p><i>Add a computer</i> page should open with the following elements:</p> <ul style="list-style-type: none"> - Input: "Computer name" with a label that says: <i>Required</i> - Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Drop Down List: "Company" - Button: "Create this computer" - Button: "Cancel"
2	Click the Cancel button.	You should be redirected to the main page with the list of computers

Test 6: Add a computer with missing Computer name

Setup		
<ul style="list-style-type: none">• Navigate to SUT		
No	Step	Expected Result
1	Click on Add a new computer button	<i>Add a computer</i> page should open with the following elements: <ul style="list-style-type: none">- Input: "Computer name" with a label that says: <i>Required</i>- Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd')- Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd')- Drop Down List: "Company"- Button: "Create this computer"- Button: "Cancel"
2	Fill all fields except the <i>Computer name</i> input and click on Create this computer .	<ul style="list-style-type: none">• A validation error should prevent the computer from being created• The background of the <i>Computer name</i> input should turn into red.

Test 7: Add a computer with invalid Introduced date format

Setup		
<ul style="list-style-type: none">• Navigate to SUT		
No	Step	Expected Result
1	Click on Add a new computer button	<i>Add a computer</i> page should open with the following elements: <ul style="list-style-type: none">- Input: "Computer name" with a label that says: <i>Required</i>- Input: "Introduced date" with a label that says: <i>Date</i>

		('yyyy-MM-dd') <ul style="list-style-type: none"> - Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Drop Down List: "Company" - Button: "Create this computer" - Button: "Cancel"
2	Fill all the input fields and make sure to enter an incorrect date format in the <i>Introduced date</i> field. E.g. 03-03-2015	All fields are filled and the <i>Introduced date</i> field should have an incorrect date format entered.
3	Click on Create this computer .	<ul style="list-style-type: none"> • A validation error should prevent the computer from being created • The background of the <i>Introduced date</i> input should turn into red.

Test 8: Add a computer with invalid Discontinued date format

Setup		
<ul style="list-style-type: none"> • Navigate to SUT 		
No	Step	Expected Result
1	Click on Add a new computer button	<i>Add a computer</i> page should open with the following elements: <ul style="list-style-type: none"> - Input: "Computer name" with a label that says: <i>Required</i> - Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Drop Down List: "Company" - Button: "Create this computer" - Button: "Cancel"
2	Fill all the input fields and make sure to enter an incorrect date format in the <i>Discontinued date</i> field. E.g. 03-03	All fields are filled and the <i>Discontinued date</i> field should have an incorrect date format entered.
3	Click on Create this computer .	<ul style="list-style-type: none"> • A validation error should prevent the computer from being created

		<ul style="list-style-type: none"> The background of the <i>Discontinued date</i> input should turn into red.
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Test 9: Add a computer with blank Introduced date

Setup		
<ul style="list-style-type: none"> Navigate to SUT 		
No	Step	Expected Result
1	Click on Add a new computer button	<p><i>Add a computer</i> page should open with the following elements:</p> <ul style="list-style-type: none"> Input: "Computer name" with a label that says: <i>Required</i> Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd') Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd') Drop Down List: "Company" Button: "Create this computer" Button: "Cancel"
2	Leave the <i>Introduced date</i> field empty and fill the rest of the input fields.	All fields are filled and the <i>Introduced date</i> field should be blank.
3	Click on Create this computer .	You should be redirected to the main page with the list of computers with a notification that says: "Done! Computer [COMPUTER NAME] has been created".
4	Search for the created computer using the <i>Filter by name</i> feature.	The newly created computer should appear in the list with <i>Introduced date</i> being blank (Appears with a hyphen)

Test 10: Add a computer with blank Discontinued date

Setup

<ul style="list-style-type: none"> Navigate to SUT 		
No	Step	Expected Result
1	Click on Add a new computer button	<i>Add a computer</i> page should open with the following elements: <ul style="list-style-type: none"> Input: "Computer name" with a label that says: <i>Required</i> Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd') Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd') Drop Down List: "Company" Button: "Create this computer" Button: "Cancel"
2	Leave the <i>Discontinued date</i> field empty and fill the rest of the input fields.	All fields are filled and the <i>Discontinued date</i> field should be blank.
3	Click on Create this computer .	You should be redirected to the main page with the list of computers with a notification that says: "Done! Computer [COMPUTER NAME] has been created".
4	Search for the created computer using the <i>Filter by name</i> feature.	The newly created computer should appear in the list with <i>Discontinued date</i> being blank (Appears with a hyphen)

Test 11: Add a computer with non selected Company

Setup		
<ul style="list-style-type: none"> Navigate to SUT 		
No	Step	Expected Result
1	Click on Add a new computer button	<i>Add a computer</i> page should open with the following elements: <ul style="list-style-type: none"> Input: "Computer name" with a label that says: <i>Required</i> Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd') Input: "Discontinued date" with a

		label that says: <i>Date</i> ('yyyy-MM-dd') <ul style="list-style-type: none"> - Drop Down List: "Company" - Button: "Create this computer" - Button: "Cancel"
2	Leave the <i>Company drop down list</i> field unselected and fill the rest of the input fields.	All fields are filled and the <i>Company</i> input still shows -- Choose a company --.
3	Click on Create this computer.	You should be redirected to the main page with the list of computers with a notification that says: "Done! Computer [COMPUTER NAME] has been created".
4	Search for the created computer using the <i>Filter by name</i> feature.	The newly created computer should appear in the list with <i>Company</i> being blank (Appears with a hyphen)

Test 12: Add multiple computers with the same name

Setup		
<ul style="list-style-type: none"> • Navigate to SUT 		
No	Step	Expected Result
1	Click on Add a new computer button	<i>Add a computer</i> page should open with the following elements: <ul style="list-style-type: none"> - Input: "Computer name" with a label that says: <i>Required</i> - Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Drop Down List: "Company" - Button: "Create this computer" - Button: "Cancel"
2	Fill all the input fields, make a note of the Computer name chosen and click on Create this computer.	You should be redirected to the main page with the list of computers with a notification that says: "Done! Computer [COMPUTER NAME]"

		has been created”.
3	Repeat steps 1 and 2 using the same Computer name noted at step 2.	You should be redirected to the main page with the list of computers with a notification that says: “Done! Computer [COMPUTER NAME] has been created”.
4	Search for the created computers using the <i>Filter by name</i> feature.	The newly created computers should appear in the list sharing the same name.

Test 13: Edit a computer

Setup		
<ul style="list-style-type: none"> • Navigate to SUT • An existing computer to access and edit 		
No	Step	Expected Result
1	Click on a <i>Computer name</i> from the list of computers.	<i>Edit computer</i> page should open with the following elements: <ul style="list-style-type: none"> - Input: “Computer name” with a label that says: <i>Required</i> - Input: “Introduced date” with a label that says: <i>Date</i> ('yyyy-MM-dd') - Input: “Discontinued date” with a label that says: <i>Date</i> ('yyyy-MM-dd') - Drop Down List: “Company” - Button: “Save this computer” - Button: “Cancel” - Button: “Delete this computer”
2	Change one or more of the selected computer details.	One or more input fields should be changed.
3	Click on Save this computer .	You should be redirected to the main page with the list of computers with a notification that says: “Done! Computer [COMPUTER NAME] has been updated”.

4	Search for the updated computer using the <i>Filter by name</i> feature.	The updated computer should be found and the changed fields appear correctly in the table.
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Test 14: Delete a computer

Setup		
<ul style="list-style-type: none"> • Navigate to SUT • The system has existing computers 		
No	Step	Expected Result
1	Click on a <i>Computer name</i> from the list of computers.	<p><i>Edit computer</i> page should open with the following elements:</p> <ul style="list-style-type: none"> - Input: "Computer name" with a label that says: <i>Required</i> - Input: "Introduced date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Input: "Discontinued date" with a label that says: <i>Date</i> ('yyyy-MM-dd') - Drop Down List: "Company" - Button: "Save this computer" - Button: "Cancel" - Button: "Delete this computer"
2	Click on Delete this computer .	You should be redirected to the main page with the list of computers with a notification that says: "Done! Computer [COMPUTER NAME] has been deleted"
3	Click on Filter by name .	Only computers that contain the entered computer name should appear on the list.