

# Contacts Multi-Tier Application Tests Document

We will test out the CRUD operations with forcible mistakes to show error handling and finally the ideal execution of these operations.

Creating a Contact with a missing field:

The screenshot shows a web application titled "Contact List Manager". It features a "Contact Information" form on the left and an "Actions" panel on the right. The form has four input fields: "Contact Number" (containing "124"), "First Name" (containing "example2"), "Last Name" (empty), and "Email" (containing "example@test.com"). The "Actions" panel contains five buttons: "Add Contact" (green), "Update Contact" (orange), "Delete Contact" (red), "Search" (teal), and "Clear Fields" (grey). Below the form is a "Contacts" table with columns "id", "FirstName", "LastName", and "Email". The table contains one row with "1", "example1", "account", and "example1@test.com". A modal dialog box is open in the foreground with the text "Please fill all fields" and an "OK" button. The "Last Name" field in the form is empty, which is the cause of the error message.

**Contact List Manager**

**Contact Information**

Contact Number:

First Name:

Last Name:

Email:

**Actions**

- Add Contact
- Update Contact
- Delete Contact
- Search
- Clear Fields

**Contacts**

id	FirstName	LastName	Email
1	example1	account	example1@test.com

Please fill all fields

OK

## Creating a Contact with an unexpected type for the Contact Number:

Contact List Manager

Contact Information

Contact Number:

test

First Name:

example2

Last Name:

account

Email:

example2@email.com

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

1

Error adding contact: Contact Number must be a valid integer.

OK

	Email
	example@email.com

## Creating a Contact with a wrong email format:

Contact List Manager

Contact Information

Contact Number:

101

First Name:

example2

Last Name:

account

Email:

example2@email

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id	FirstName	LastName	Email
▶			nt	example@email.com

Error adding contact: Email must be a valid email address.

OK

Updating with any of the previous errors:

Contact List Manager

Contact Information

Contact Number:

100

First Name:

test2

Last Name:

Email:

test@example.com

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id	FirstName
▶	100	test2

Error updating contact: Name cannot be empty.

OK

## Deleting a non-existent Contact Id:

Contact List Manager

Contact Information

Contact Number:

First Name:

test2

Last Name:

example

Email:

test@example.com

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id	FirstName	Email
▶	100	example	test@example.com

Please select a contact to delete

OK

## Searching for a non-existent Contact Id:

Contact List Manager

Contact Information

Contact Number:

0123

First Name:

Last Name:

Email:

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id	FirstName	LastName	Email
▶	100	test	account	test@example.com
	101	test2	account	test2@example.co...

## Creating a Contact:

### Contact Information

Contact Number:

First Name:

Last Name:

Email:

### Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

### Contacts List

	<b>Id</b>	<b>FirstName</b>	<b>LastName</b>	<b>Email</b>
▶	1001	test	account	test@email.com

## Updating a Contact:

Contact List Manager

Contact Information

Contact Number:

First Name:

Last Name:

Email:

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id	FirstName	LastName	Email
▶	1001	test-updated	account	test@email.com
	1002	test2	account	test2@email.com



## Deleting a Contact Part 1:

Contact List Manager

Contact Information

Contact Number:

1001

First Name:

test-updated

Last Name:

account

Email:

test@email.com

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

Confirm Delete

Are you sure you want to delete this contact?

Yes

No

First Name	LastName	Email
test-updated	account	test@email.com
test	account	test2@email.com

## Deleting a Contact Part 2:

Contact List Manager

Contact Information

Contact Number:

First Name:

Last Name:

Email:

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id	FirstName	LastName	Email
▶	1002	test2	account	test2@email.com

## Reading Contacts (Before Search):

Contact List Manager

Contact Information

Contact Number:

First Name:

Last Name:

Email:

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id	FirstName	LastName	Email
▶	1000	test	account	test3@email.com
	1002	test2	account	test2@email.com

## Searching for a Contact:

Contact List Manager

Contact Information

Contact Number:

1000

First Name:

Last Name:

Email:

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id	FirstName	LastName	Email
▶	1000	test	account	test3@email.com

## Special cases

Searching for a non-existent contact Id:

The screenshot shows a web application titled "Contact List Manager". It has a "Contact Information" section with input fields for "Contact Number" (containing "123454"), "First Name", "Last Name", and "Email". To the right is an "Actions" section with buttons for "Add Contact" (green), "Update Contact" (orange), "Delete Contact" (red), "Search" (teal), and "Clear Fields" (grey). Below these is a "Contacts List" section containing a table with columns "Id", "FirstName", "LastName", and "Email". The table lists three contacts: John Smith (Id: 123), Sarah Johnson (Id: 321), and Mohammed Salah (Id: 1234). An error dialog box is overlaid on the table, displaying the message "Error searching contacts: No contacts found with the given ID." and an "OK" button.

Contact List Manager

**Contact Information**

Contact Number: 123454

First Name:

Last Name:

Email:

**Actions**

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

**Contacts List**

	Id	FirstName	LastName	Email
▶	123	John	Smith	john@example.co...
	321	Sarah	Johnson	sarah@example.c...
	1234	Mohammed	Salah	mo.salah@examp...

Error searching contacts: No contacts found with the given ID.

OK

## Updating or creating a duplicate Contact Id or Email:

Contact List Manager

Contact Information

Contact Number:

1234

First Name:

Mohammed

Last Name:

Salah

Email:

john@example.com

Actions

Add Contact

Update Contact

Delete Contact

Search

Clear Fields

Contacts List

	Id		Email	
	123		john@example.co...	
	321		sarah@example.c...	
▶	1234	Mohammed	Salah	mo.salah@examp...

Error updating contact: A contact with the same email already exists.

OK