

Login (#L)

1. Front-End sends JSON of {Login Name; Password} to API.
2. API sends {Login Name; Password} to Database to check if the user exists in the “users” table.
3. Database returns result of search to API.
4. API returns result of search to Front-End:
 - a. If {Login Name} was found, then:
 - i. If Password matches, then Front-End directs user to Contacts Page.
 - ii. If Password does NOT match, then Front-End stays on Home Page and updates the dynamic message to indicate that the user entered the wrong password.
 - b. If {Login Name} was NOT found, then Front-End stays on Home Page and updates the dynamic message to indicate that the user’s login name was not found in the database, and that the user must register.

Register (#R)

1. Front-End sends JSON of {First Name; Last Name; Login Name; Password} to API.
2. API sends {First Name; Last Name; Login Name; Password} to Database where the user’s login information is added to the “users” table.
3. Database returns result of table modification to API.
4. API returns result of table modification to Front-End:
 - a. If new user was successfully created, then Front-End directs user to Contacts Page.
 - b. If new user was NOT successfully created, then Front-End stays on Registration Page and updates the dynamic message to indicate that the user’s account could not be created (e.g. new user entered same {First Name; Last Name; Login Name; Password} as an existing registered user).

Contact Table – Create New Contact (#C)

1. After entering new contact's information, Front-End sends JSON of {First Name; Last Name; Email; Phone} to API.
2. API sends {First Name; Last Name; Email; Phone} to Database where the new contact is added to the “contacts” table.
3. Database returns result of table update (i.e. adding record of new contact) to API.
4. API returns result of table update to Front-End and updates the dynamic message to indicate whether adding the new contact was successful or not. Contact Table displayed on the page is updated if successful.

Contact Table – Update Existing Contact (#U)

1. After making changes to “Selected Contact” on “Selected Contact Page”, Front-End sends JSON of {Modified First Name; Modified Last Name; Modified Email; Modified Phone} to API.
2. API sends {Modified First Name; Modified Last Name; Modified Email; Modified Phone} to Database where the data for that contact is updated in the “contacts” table.
3. Database returns result of table update to API.
4. API returns result of table update to Front-End and updates the dynamic message to indicate whether contact update was successful or not. Contact Table displayed on the page is updated if successful.

Contact Table – Delete Existing Contact (#D)

1. Front-End sends JSON of {Current Contact} to API (use alert dialog box to confirm user wants to delete the contact's record).
2. API sends {Current Contact} to Database where the record for that contact is deleted from the “contacts” table.
3. Database returns result of record deletion to API.
4. API returns result of table update to Front-End and updates the dynamic message to indicate whether contact deletion was successful or not. Contact Table displayed on the page is updated if successful.

Contact Table – Search Contacts (#S)

1. Front-End sends JSON of {Partial First Name; Partial Last Name} to API.
2. API sends {Partial First Name; Partial Last Name} to Database where partial matches are searched in the “contacts” table.
3. Database returns partial matches to API.
4. API returns partial matches to Front-End and updates the dynamic Search Matches Table to display contacts that are partial matches (if any).