

System Architecture and Design Decisions

This project (Contact-List App) is developed using Python **Django** Framework and **SQLite3** as its database. This project uses Django version 3.2.9 and SQLite version 3.36.0. The frontend templates pages are made using HTML, CSS, JS, jQuery, and Bootstrap Framework.

Following are the Database System Design and Tables:

We have Mainly 4 tables in our database:

1. **Contact** - Stored Contact Details like First and Last Name of a Person
2. **Address** – Stores the address details of respective user.
3. **Phone** – Stores Phone Number Details of each respective user
4. **Date** - Stores Data Details of each respective user

Application Architecture and Functionality:

Following is the system architecture of the Application:

- **Home Page:**
 - Whenever the application starts this will be the first page that will be loaded.
 - It contains a form using which is used to Add New Contact to the Database
 - There are options in the form to add multiple address, numbers, and dates for a particular user.
 - On the top of the page there is Navigation Bar that can be used to switch to search page.
- **Search Page:**
 - When you click search button in the nav-bar this page will be opened
 - This page is used for searching through the details of contact in the database
 - On the top of the page there is search bar can be used to input search query and upon submit the table below will be updated with the result QuerySet
 - The datatable below shows the Full Name details of the user.
 - There is also an option to Edit/Delete contact details of each user.

- **Update Page:**

- Whenever the edit button of a particular user is clicked in the search page it will redirect to the Update Page which contains the Form with all the details pre-filled of that user that is available in the database
- There are options to add new address, numbers as well as date details for that user.
- If you want to delete a section of address/number/date, there is also an option available in the form
- Upon form submission the data will be updated in the database, and it will redirect to search page.