SYSTEM DESIGN DOCUMENT

CONTACT LIST APPPLICATION

Introduction

This System Design Document has been created to outline the system design for the SQL Programming Project in CS-6360Database Design called as Contact List Application (CLA).

Software System Architecture

This application has various functionalities in which users will enter and query data. The functionalities included in this application:

- Display Contact Details: This component provides the user an interface to view all the Details of a saved Contact.
- New Contact Entry: This component provides the user an interface to add/save a new Contact.
- Modify/Delete Contact: This component provides the user an interface to edit any details of existing Contact. This module also allows to delete a Contact.
- Search Contact Module: This component provides a search field in which the user can enter any search string which can Contact's name, address, city, state or phone number. This module shows the Contacts that match the search string.

Database Design

The database schema is the same as the one provided by Professor Davis.

Database consists of four tables namely- Contact, Address, Phone, Dates

Each table has its own primary key the Auto_increment enabled. The primary key of Contact table is foreign key in rest of the three tables.

Tools and Technologies

Database: MySQL

Database modeling: MySQL Workbench

Programming Languages: Java, SQL

Frameworks: Spring Boot, JPA, Hibernate (ORM)

UI and Web Development Framework: AngularJS

Web Technologies: JSP, HTML, Bootstrap

Web Service: REST API

IDE: Eclipse

Build Tool: Maven

Application and Web Server: Apache Tomcat