PROJECT DESIGN PHASE - I
SOLUTION ARCHITECTURE

INTRODUCTION

Every solution architecture design contains 6 to 7 phases these standards should be followed by all development team to ensure the standard of the software, so the software is scalable, versatile and reusable

REQUIREMENTS

This project is done using the **Flask framework** for backend development, and other required packages like **flask-login, flask-sqlalchemy, flask-form, security packages** etc..

For frontend development **css, HTML, javascript** is used along with css framework like **bootstrap.**

For API testing **postman** application is used, and for deployment **IBM cloud service** is used.

DESIGN

All the requirements are used to design the software. The design and architecture of the software is done in a unique manner so the software can be reused and developed in future.

The routers are programmed in **routers.py** file, The forms used in the software are developed in **forms.py** file.The database model is created in **model.py** file, the testings are done in separate **tests.py** file. Finally HTML files are stored in **templates folder** and static file is stored in **static folder**

IMPLEMENTATION

The designing process is done and implementation is done by developing the logic by coding. All the required packages are imported and for each router specific logic is developed according to the use.

UNIT TESTING

Each part of the software is developed by individual team members, and it is tested individually by the python unit testing package.

INTEGRATION AND TESTING

After unit testing all parts of the software are integrated and tested finally, so the flask application can be runned in any platform. The testing process includes **Alpha testing** and **Beta testing**.

DEPLOYMENT

The flask application is finally deployed in IAAS platform like **IBM cloud service**, so it can be runned in **HTTPS protocol** along with **SSL**. In the deployment process a real time database is connected along with real time file storage.

MAINTENANCE

After successful deployment, if there is a package update, it is implemented in the software.