A Software Design Document:

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The Taxi Booking Web-Based System Design Document

Revision History

Version	Date	Author(s)	Description
v1.0	01/11/15	Rohit Verma	Initial Version
v1.1	15/11/15	Rohit Verma	Final Version with full design explained

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1 Introduction

1.1 Design Overview

The *Taxi-Share* System is based on the Apache2 HTTP server.The Apache HTTP server project is an effort to develop and maintain an open-source HTTP server for modern operating systems including UNIX and Windows NT. It has an easy-to-use Web interface for all users, including the offerors and the travelling public.The Taxi-Share software uses Mysql database (**RDBMS**) to store data and php,javacript,html,css to have a user-friendly interface with many front-end checks.AJAX have been also used for including live search feature.

1.2 Intended Audience

This document is intended for software operators,database managers,coders and testers , application developers,web developers.

1.3 References

[1] Taxi-Share ,SRS Document , accessed on 15/11/15.

[2]*What is Apache2 ?,https://en.wikipedia.org/wiki/Apache_HTTP_Server*, accessed on 15/11/15.

[3] W3schools.com – php , html , css , AJAXand sql section ,accessed on 15/11/15.

[4] For Error Analysis :- http://stackoverflow.com/ ,accessed on 15/11/15.

[5] Fundamentals of Database Systems by Elmasri & Navathe for Understanding RDBMS.

2 Detailed Design

For rapid implementation the Apache2 HTTP Server is used as the platform for *Taxi-Share Service*.For efficient handling of data , **mysql** server is used as RDBMS and HTML-CSS GUI is used as an frontend . PHP is used as a link between html and **mysql** and to generate webpages.AJAX & Javascripts have been used to implement live search within the page itself and for different front-end checks.

2.1 Architecture

This is the basic block diagram of major

components of the Taxi-Share software project .

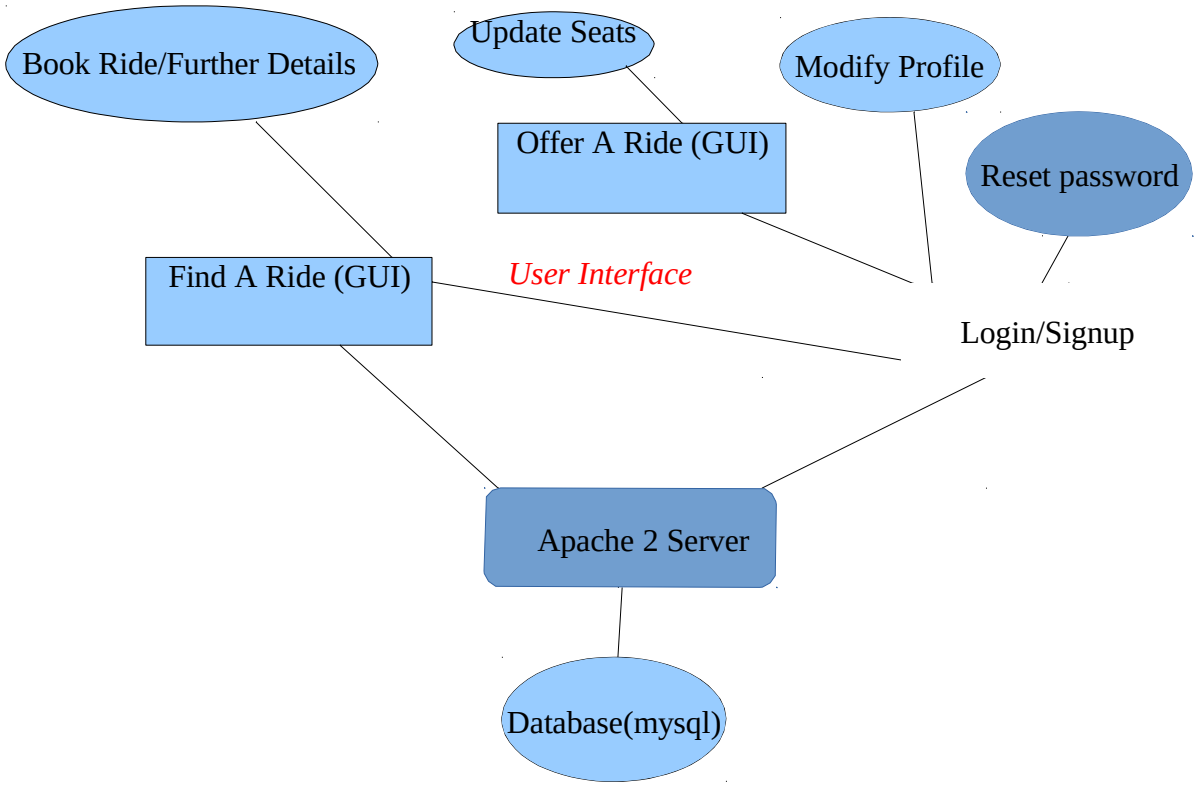

Fig. 1: Taxi-Share Architecture

Components

Database - It is used to store the basic information of offeror such as (email & password etc) and dates and price of ride between cities.

Server - It serves web pages on the request of viewer or traveller . From that page, user can use different functionality of web-based system/project.

Find A Ride -This component offers user to find a ride between different destinations.But to know more details of the offeror one must have to register on our system.

Book Ride/Further Details-

Offer A Ride- This component offers an user if he/she can offer a taxi -ride between destinations.He/She just needs to fill the details of his/her journey & his/her personal informations.

Update seats- This component must need that the offeror has logged into our system.It allows you to update number of seats available after booking.

Login/Signup- For those who are new to web-based system they must login/signup to view use more functionality .

Modify Profile-Users can modify their personal details with the help of this feature.They must be logged in.

Password Reset-This feature allows users to have more security on web-based system.Though Password check don't uses any hashing methods.

Interfaces

The interface between the browser and all the GUIs is php and some basic AJAX .HTTP Calls are made during each request between the components. The Different GUIs are shown on browser hence browser covers all the front-end part of software.

2.2 Algorithms and Data Structures

There are no significant algorithms developed for this product. The only important data structure is tables which are handled by mysql & proper querying elements are used.

2.3 External Data

Databases

Taxi-Share Web-Based System uses a database named “taxi”.Taxi Database uses three tables.

The schema of the tables is given below :

Tables :

[1]- Userinfo

fname(varchar(20)) NOT NULL	sname(varchar(20)) NOT NULL	user(varchar20)) NOT NULL,PRIMARY KEY	email(varchar(30)) NOT NULL	mobilenum(bigint) NOT NULL	password(varchar(25)) NOT NULL	sex(varchar(7)) NOT NULL

[2]- Ride

rideid(bigint) PRIMARY KEY, AUTO_INCREMENT	ruser(varchar(20)) NOT NULL	date(varchar(10)) NOT NULL	time(varchar(10)) NOT NULL	car(varchar(20)) NOT NULL	numofseats(bigint) NOT NULL	luggage(varchar(7)) NOT NULL	timewindow(int) NOT NULL	detour(int) NOT NULL	source(varchar(15)) NOT NULL

[3]- Destination

destid(bigint) PRIMARY KEY, AUTO_INCREMENT	drideid(bigint) NOT NULL	arrival(varchar(20)) NOT NULL	price(bigint) NOT NULL

Foriegn Keys :-

1- ruser in Ride table referring to user of Userinfo table.

2- drideid in Destination table referring to rideid of Ride table.

Files

Taxi-Share Web-Based system does not create any additional files on server.Though there is a file attached just to initialize the table and foreign keys in the mysql database named Initialize.txt.For more help open readme file.

1.1 Performance

The product service will be fast on any machine with average specs as the application is light .Since we are not dealing with huge pile of data.

1.2 Test Scripts

We haven't use any script like perl, shell to check whether the product is working correctly or not.We just checked it manually as it is only for academic purpose. We checked my product for all possible queries many times.We tried to debug most parts of our code used in the system.