**PROJECT TOPIC: Car Rental System**

**Group No. :**

**Project Group Members:**

1. PRIYANSHU TIWARI (K-43/181500516)
2. SHIVENDRA PRATAP SINGH (K-58/181500683)

**3.** TANEESHA SHARMA (K-65/181500748)

**4.** KARTIKEYA PANDEY (K-24/181500314)

**4.** SHASHANK YADAV (K-57/181500657)

**Project Supervisor: Ms.** Harvinder Kaur, Assistant Professor

**Table of content**

**1. Introduction**

**1.1 General Introduction**

**1.2 Area of Computer Science**

**1.3 Software Requirements**

**2. Problem Definition**

**3. Objectives**

**4. Methodology**

**5. Implementation Details**

**6. Contribution Summary**

**7. Progress till date & the Remaining work**

**8. References**

**Introduction of the project Car Rental System: -**

Our Aim is to design and create a platform from where customers can easily rent or lend a car. By paying the money for Specified Period of time. This platform increases customer retention and simplify vehicle in an efficient way.

This software car Rental System has a very user-friendly interface. Thus, the users will feel very easy to work on it. By using this system user can manage their payment and vehicle issues such as insurance. The car information can be added to the system. Or existed car information can be edited or deleted too by Administrator.

The users should create a new account before logging in or he / she can log into the System with his/her created account. Then he/she can view the available cars in a city and make a reservation for a Car. This system will helpful to the admin as well as to the customer also.

**Area of Computer Science: -**

* Algorithms and complexity
* Information management
* Platform-based development
* Programming languages
* Security and information assurance
* Software engineering

**Modules of CAR RENTAL SYSTEM: -**

**1. Authentication module:**

The user details should be verified against the details in the user tables and if it is valid user, they should be entered into the system, once entered, based on the user type access to the different modules to be enabled / disabled. If users don’t have username and password they should be Register. In our application we are having two types of users like administrator, user.

**2. Admin:**

Admin can login with username and password and he can add the vehicles. Vehicle replacement is available if any problem that occurs in the vehicle. And he can collect the rent from the customer. He can able to view the booked car details.

**3. Customer:**

The customers use the system to get a car for rent. If customer want to book the car, they need authentication. The customer should create a new account before logging in or he / she can log into the System with his/her created account. And also, directly he/she can pay the amount through his credit card, UPI details.

**Software Requirements:**

Operating System : Windows, Linux, Android, iOS

User Interface : HTML, CSS, BOOTSTRAP

Client-side Scripting : JavaScript

Programming Language : PHP

Web Technologies : JQUERY

Database : My SQL6

Database Connectivity : JDBC

Web Server : XAMPP server /WAMPP server

**Hardware Requirements:**

Hard disk : 500GB

RAM : 4 GB

Processor : Pentium or Intel

**EXISTING SYSTEM on CAR RENTAL SYSTEM: -**

In this system user (or) client will directly interact with the car owner and owner will decide whether the car is available or not. Then if it is available, he will give rent a car to the customer. The main drawback of this system is customer need to meet the car owner. this is time waste process**.**

**Disadvantages of existing System:**

1. User should manually go and book the car.
2. Its time taking process and cost also.
3. Doesn’t fulfil the client requirements fully.

**Our Proposal on Car Rental System: -**

In this car rental system, we are going to introduce online booking of car rent will be available. So, the Burdon of the customer will be reduced. This enables admin can rent a vehicle that can be used by a customer. By paying the money during a Specified Period of time. This system increases user retention and simplify vehicle in an efficient way.

* This software car Rental System has a very user-friendly interface. Thus, the users will feel very easy to work on it. By using this system admin can manage their rental, payment and vehicle issues such as insurance. The car information can be added to the system by admin.
* Company will decide the money for car rent. it bases on the day. Vehicle replacement is available if any problem that occurs in the vehicle.

**Advantages of Proposed System:**

1. Here user can directly interact through our system or application and the user book a car through online so it ill takes less time.
2. It ill helpful to the car rental person also. so, he can maintain his car schedules effectively. And the system maintenance will be easy.

**System Design of Project: -**

In this phase, a logical system is built which fulfils the given requirements. Design phase of software development deals with transforming the client’s requirements into a logically working system. Normally the designing is performed in following two steps:

1.**Primary Design Phase**:

In this phase, the system is designed at block level. The blocks are created at the time of problem identification phase. The different blocks are created for the different flows for minimising the information flow between the blocks.

2.**Secondary Design Phase**: In this phase the detailed design of every block is performed.

The general tasks involved in the design process are following:

1. Design various blocks for the overall system system process.
2. Design smaller, compact and workable modules in each block.
3. Design various database structures.
4. Specify details of programs to achieve desired functionally.
5. Design the form of inputs and outputs of the system.

User interface Design

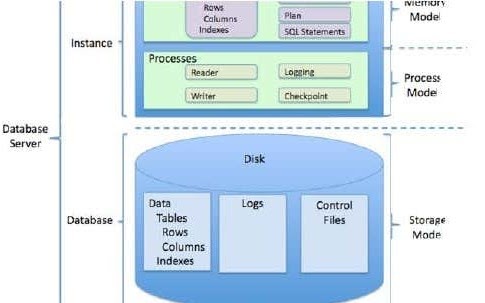
User interface Design is concerned with the dialog between a user and the computer. It is concerned with everything from logging in to the system to the eventual presentation of desired inputs and outputs.

The following steps are various guidelines for User Interface Design:

1. The screen should be formatted so that various types of information, instructions and messages always appear in the same general display area.
2. Messages, instructions or information should be displayed long enough to allow system users to read them.
3. Default values for fields and answers to be entered by the user should be specified.
4. A user should not be allowed to proceed without correcting an error.

**Project category: -**

Relational database management system (RDBMS): This is the RDBMS based project which is currently using MySQL for all transaction statements. MySQL is an open source RDBMS.



# IMPLEMENTATION METHODOLOGY

Model View Controller or MVC as it popularly called, is a software design pattern for developing web applications. A Model View Controller pattern is made up of the following three parts:

1. MODEL - The lowest level of the pattern which is responsible for maintaining data.
2. VIEW - This is responsible for displaying all or a portion of the data to the user.
3. Controller - Software Code that controls the interactions between the Model and the View.

MVC is popular as it isolates the application logic from the user interface layer and supports separation of concerns. The Controller here receives all requests for the application and then works with the Model to prepare any data needed by the View. The View then uses the data prepared by the Controller to generate a final presentable response. The MVC abstraction can be graphically represented as follows.

## MVC (MODEL VIEW CONTROLLER FLOW) DIAGRAM

## **DATA FLOW DIAGRAM**

**Conclusion of project CAR RENTAL SYSTEM:**

Our project is only a humble venture to satisfy the needs to manage their project work. Several user-friendly coding has also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a Framework that enables the manager to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

***REFERENCES: -***

* Google for problem solving
* <https://www.javatpoint.com>
* <https://www.jsp.net/>
* <https://www.tutorialspoint.com/mysql/>
* <https://www.wampserver.com/en/>
* https://www. Xampp.com/en/
* <https://www.w3schools.com/>

**Signature of Project Guide: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**