

ONLINE SMART PARKING RESERVATION SYSTEM (USING WEBSITE)

ABSTRACT:

Due to the proliferation in the number of vehicles, parking problems are profoundly found in many shopping malls. This is because the current transportation infrastructure and parking facility developed are unable to cope with the influx of vehicles to the mall. If parking problems are not solved effectively, it may lead to unnecessary traffic and waiting.

The purpose of the implementation of an online car parking system is to automate the existing manual system with the help of computerized equipment and full-fledged computer software. This project is an online parking booking system that provides customers with a way of reserving a parking space online. It helps to overcome the problem of finding a place for parking in commercial areas that unnecessarily consumes time.

The project will be a web-based reservation system(website) where users can view various parking areas and select the space to view whether the space is available or not. If the booking space is available then he/she can book it for a specific time slot. Users can also make an online payment for the booking. After making the payment users are notified about the booking with a unique parking number. This webpage will provide the user after login, with options like

1. MY ACCOUNT (ALONG WITH HISTORY OF BOOKINGS)
2. BOOK PARKING
3. VIEW BOOKING
4. CANCEL BOOKING
5. FEEDBACK
6. LOGOUT

Vehicle ingress and egress are also made more convenient with the implementation of hassle-free reservation and payment mechanism. With the implementation of the smart parking system, users can easily locate and secure a vacant parking space at any car park deemed convenient to them.

Online parking system if effectively implemented, can result in an error-free, secure, reliable and fast management system.

SCOPE:

Nowadays parking is very important and hence every vehicle owner must park his or her car in a secure designated parking slot available. The implementation of this project can be done from the busiest cities to towns. The only disadvantage is that it is completely online based and it cannot be implemented in remote places where manual methods are being implemented, where everything needs to be converted online to implement this procedure.

As the technology is increasing day by day so in future, there is a scope for a very good and better online slot parking system with solving all the queries and limitations in both hardware and software fields. This project mostly suits to all updated scenarios and also can be suitable, adaptable to future developments. There are many extensions such as to add more options in the car parking system like priority based parking according to park time which makes this webpage reliable over years. In future, it can be developed as an android app too.

DELIVERABLES:

A fully functional website that can be easily used by the users (customers and admins) to manage the bookings of the parking in the malls, airports and many more places. The website will track the location of space/lot for vehicles and reflect the same on the website. This can easily be implemented in big malls to alleviate the above-mentioned problems of time and space.

The project is first developed on a Web-based application like a website, but later it can be developed on Android/IOS applications if the customers are interested.

REQUIREMENTS:

HARDWARE REQUIREMENTS:

Processor (At least Pentium 4)

Sufficient RAM

HARD Disk

Other normal computer hardware parts

SOFTWARE REQUIREMENTS:

Front End

1) HTML

HTML is used to build the skeleton of the website, so it is essential for every webpage.

2) CSS

CSS is used to style the webpage using various functionalities like layout, colour fonts and therefore helps in formatting and displaying HTML documents.

3) PHP

PHP results in faster site loading speeds as PHP codes runs much faster and is flexible for database connectivity.

It can connect to several databases the most commonly used is MySQL.

PHP allows you to interact with your visitors in ways HTML alone can't.

4) JAVA SCRIPT

Java script helps to make websites dynamic using concepts like DOM(data object manipulation) which makes the website more interactive.

Back End

1) MySQL

Advantages:

- MySQL can be used for free
- Scalability and Flexibility
- Strong Data Protection
- Management Ease

Design Tools

1) Project management activity

Work breakdown structure (WBS) - Lucidchart

Lucidchart is a web-based proprietary platform that allows users to collaborate on drawing, revising and sharing charts and diagrams.

By working with both lucidchart and createely, we felt lucidchart to be more convenient to draw the shapes and connecting with the other levels. Hence lucidchart allows to create WBS diagrams in a simple and efficient way.

2)Architecture diagrams – Dia

3)Detailed design – Star UML

4)Configuration management – SVN

5)Web Testing -Selenium