

Project Title: Paper Less Ticketing System For Heritage Sites Of India (GHUMANTU)

Category: Web Application

Purpose: The purpose of the application to automate the ticketing process of cultural and heritage sites of india, automating the entire process would help keep government to keep better record of visitors and also save large amount of paper on daily bases.

Scope: It will allow people to decide which place to visit by viewing the images and comments being posted by other visitors. It will help them book the ticket online for any date they want. It will ease the problem of officials to maintain the data of visitors. It will automate the billing process of tickets. This application will make things much more flexible for both administrator and the visitor.

Introduction

Existing System: The existing system is manual system or semi automated. Manual system involves large amount of paper in the form of tickets being issued and the record registers being maintained. Data is the most important thing in today's world which needs to be maintained properly and storing it in books is full of risks as well as very tedious.

A manual system has following disadvantages

- Large amount of paper usage.
- No automated process.
- Data storage not properly done.
- Data can be easily manipulated.
- No proper precautions can be taken in times of pandemic
- Visitor gets info of the place after visiting the place only.
- Sometimes a lot of resources like and time and money gets wasted due to lack of information.

- The process was not centralized as each place has its own records which makes it hard for government to analyze the population and certain problems.

Proposed System

The online ticketing system provides a better experience to both user and admin as one gets easy trip planning and the other gets better data management and automation in the process. The main benefit of this app is to the environment as paper demand will be decreased.

The system after careful analysis will be provided with following modules:

- **User Registration:** People can register and login to use the app.
- **Admin Dashboard:** Admin will be able to manage certain tasks related to the places and also will be able to see the entire data of users.
- **Places Module:** people will be able to see several places and also the pictures and reviews posted by them. Only people who actually visited that place will be able to post reviews.
- **Ticket Module:** people can book and view tickets. Each ticket would be having a bar code so that it can be scanned on the site.
- **Weather Module:** Person can see the weather conditions of the place he is planning to visit.
- **Email Module:** ticket would be mailed to the user's registered email id.

Advantages For User

- Can plan the trip by just sitting at home.
- Can book tickets without any time anywhere.
- Can see other users reviews and photos.
- Can post his/her own experience.

Advantages For Admin

- Save large amount of paper.
- Manage the data properly.

- Analyze the pattern of visitors.
- Can read visitor's comments and work on things to attract more tourism.
- If any emergency condition occurs online stored data would be very helpful.
- Cashless transactions.

Functional Requirements

Functional requirements of our system are explained below:

- User must have valid email and password to log in to the system.
- Admin can view the entire data set of any place.
- User can view places and other users reviews and photos.
- User can only post reviews and photos if he has visited that place.
- User can book tickets while sitting at home.
- User can book tickets by scanning the qr code present on site.
- They can check weather of the place they are planning to visit.
- They can pay using UPI, card etc.
- Admin can have the stats of a place i.e. how much visitors are visiting a place and during what time based on such things.
- User can filter places according to state and city.
- There should be an about section which gives a tutorial to first time user.
- Visitors should be able to post some questions if they have any which can be answered by the authorities.
- User should be able to maintain list of places which he likes similar to a wish list.
- People should be able to like or dislike a particular heritage site.
- Administration should be able to send certain notifications to all the registered users.

Non Functional Requirements

Below are the non-functional requirements of the application:

- Only the users with the role “admin” can view the applicant’s verified phone number/email.
- The website’s load time should not be too high for users.
- Applicant’s can book their tickets 90% of time without failure.
- Better component design to get efficiency at peak time.
- Flexible service based architecture would be recommended for future scalability.
- The website’s interface has to be user-friendly and easy to use.

Software Tools

Database: PostgreSQL

Client: Google chrome or any web browser

Development tools: visual studio code, eclipse, pgadmin4, tailwind api tester.

Programming Languages: Java(Springboot), Javascript(React)

Hardware Specifications

Processor: intel i5/ AMD ryzen 5

Ram: 8GB

Storage: 512GB SSD

Operating System: any