

ONLINE METRO SERVICE

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Abstract

Transportation plays a vital role in one's life. The main goal of the project is to overcome the limitation of time-consuming problems for the users. One of the major problems with regarding visitors is to standing in a queue to buy tickets from the counter and waste their valuable time. For this purpose, we are proposing an online based ticketing Booking system. In order to get a unique identifier for each person, we are considering QR code for their booking. Booking tickets and validation the QR code on the day of the journey so he/she can travel on a particular day on the desired metro to his or her preferred destination This is an integrated service which provides all information about the metro rail and its routes for public. The proposed system is a web-based application which provides information regarding timings, routes, and fares. This system manages public feedback about services through its complaint management system. The other merit of Metro rail is that it reduces cost and travelling time, which lowers the cost of production of goods and service, which significantly improves the city's competitiveness.

Keywords: Online Metro Service, Competitiveness.

1. Introduction

Metro Rail has emerged as the most reliable mode of transportation system. The word 'metro' actually comes from an abbreviation form of 'Metropolitan'. A metro train runs within a city, and it is established with the aim of covering large distances in a short time. Metro trains provides a huge relief to the people as they can reach their desired place without wasting much time. Metro trains do not produce sound while running, so they are free from creating noise pollution. Metropolis trains offer a unique design, a wide range of configurations and ensure the highest performance due to the perfect combination of proven and reliable components and innovations.

The importance of the Metro trains, unlike other modes such as local trains have a better quality of ambiance, comfort and cleanliness making it more appealing to the people who want to avoid public transport because of it being uncomfortable and overcrowded. The website is accessible for controllers, staffs and Travellers where users can register themselves into the system.

The Travellers can book tickets from scheduled services. He/she can also view generate QR code as tickets. The travellers can view notification details regarding the services or whether staff was leave or not. The Controllers are the main authority of the system and they are responsible for adding, editing, updating, deleting and viewing information if. The controllers can approve staffs and travellers. The Staffs represents the Station master of the system. Also, this module handles the assign of leave and their management.

2. Literature Survey

The system have the ability to fulfil the requirement of making available the listing functionalities to the users, enabling user should to understand the obtainability of ticket reservation. We are proposing a QR Code based ticketing system in the metro railway scenario. In order to get a unique identifies for each person. The system should enable the user to reserve, manage, modify, and cancel the ticket wherever or whenever he or she is.

The Delhi Metro is the largest rapid transit system in India connecting Delhi and its Satellite cities and is operated by Delhi Metro Rail Corporation (DMRC). It helps to users to search metro routes, stations details, recharge cards, search nearest metro stations. One can purchase card/token from counter at station only however facility for online recharge of smart card is available through website www.dmrsmartcard.com etc.

According to 'Kochi Metro Rail' the objective of building and running metro rail then they decided to use KMRL (Kochi Metro Rail Limited). Kochi Metro system will not only give the city a much -required face-lift but also provide an end-to-end connectivity. Kochi application allows travellers to book tickets by online and it also has many features such as journey planner.

3. Methodology

Existing System:

The existing system is being operated in manually. The entire record keeping is manually. This method of operation is very time consuming i.e., for managing information about the staff and user details. This involves lot of manual effort; more personal and storage space is less required. The data may be lost with the passage of time. So, the problem we given to solve is to build an automated system which helps the administrator, staffs and the all users in the system. Existing system is not computerized and there may be chance of damage or loss of data. In the existing system there is man work. Manual processing is quite tedious, less accurate in comparison to computerized processing, obviously the present system is not an exception consultant encountering the above problems. There are some limitations of the existing system are:

- There are plenty of chances of duplicity of data and information.
- Updating is very tedious job.
- Large number of records is needed.
- Lack of systematic and security.
- It is time-consuming.

Proposed System:

The proposed system helps the user to find their software according to their needs. This site provides more security in software when compared to traditional booking system. It ensures the security of your details by providing unique log in details. The proposed system allows the users to save time and paper work. It has user friendly interface.

Benefits of proposed system:

User-friendly interfaces: The system provides user-friendly interfaces with efficient registering and log in. Several validation routines are also provided which ensure error free addition of records.

Easier access to information: It is easier to access information from the available set of records. Searches can be easily done with the highest precision of accuracy.

- Avoidance of Redundancy: It ensures that records are redundant that is avoiding duplication of records. In this site the customers are unique by their log in details.
- Consistency: The major problem that can be overcome is the problem of consistency. It ensures that changes made are available to all.
- Security: It provides security by means of passwords.

Implementation:

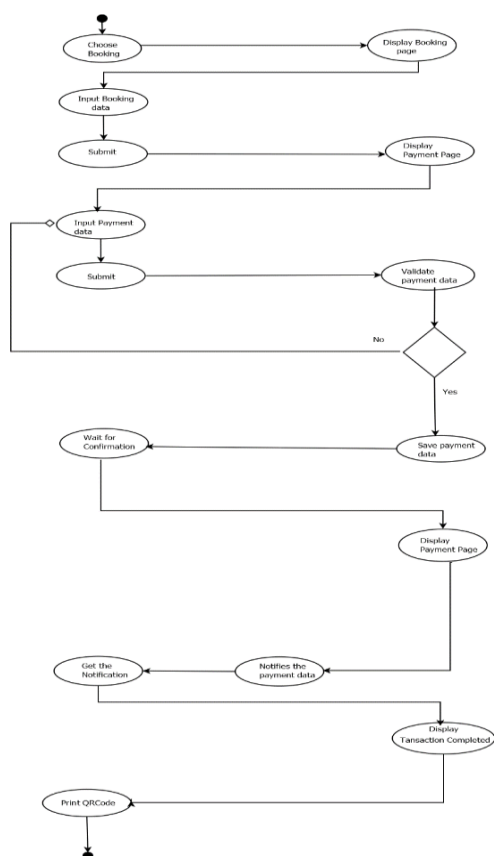
The system consists of different modules to perform Online Metro Service. The module is divided into Controller (Admin), Staff and Traveller.

The Controller can perform overall management and update the system. These module can approve staff and view users, add station details, metro details and service details etc.

The Staff can handles the assign leave and their management also. These also include features like add leave request, view stations, metro, service, notifications. Controller or Admin can approve or reject staff leave request etc.

Traveller can book tickets from scheduled services. Traveller can login or register to the online services they add their details and search metro rail for travel. After booking tickets they can also view generated QR code as ticket.

System Work Flow:



4. Result and Discussion

The implementation of an Online ticketing booking system for the metro rail can certainly bring about many benefits for users. By eliminating the need to stand in queues and buy tickets from the counter, the system can save users valuable time and make their travel experience more

convenient. The use of QR codes as unique identifiers for each person's booking can make the process of ticket validation quick and easy.

The web-based application can also provide users with all the necessary information about the metro rail, such as timings, routes, and fares. This can help users plan their journeys better and make informed decisions about their travel. The cost and time savings associated with using the metro rail can have a positive impact on the city's competitiveness.

5. Conclusion

The prototype of Online Metro Service was developed successfully. The major objectives covered by our application are Online Metro Service provides a hassle-free metro ticket booking and users will get a digital QR-Ticket. And the proposed system allows users to view metro, stations, services, notifications, feedback also. Then our system can automate metro booking system and it makes people's life easier by saving time.

6. Future Enhancement

Any system, which has been in use for a number of years gradually, decays and become less effective because of the change in environment to which has to adapt. For a time, it is possible to overcome problems by amendments and minor modification to acknowledge the need of fundamental changes. The newly developed project "ONLINE METRO SERVICE" satisfies only the basic requirements of the organization. The project only deals with the organization's dealings with the customer. The application of internet facility helps the customers. This part can be programmed to be handled by the software. The release of new versions of "ONLINE METRO SERVICE" and the fast growth of technology will surely force the system to impose some changes. Foreseeing those needs system is developed in such a way that the enhancement can be easily made without making major changes to the application ONLINE METRO SERVICE.

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