**VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY, PUNE**

**COMPUTER ENGINEERING DEPARTMENT**

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**Synopsis**

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**Group number:**

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**Train Ticket Booking and checking using QR code scanning**

**Objective :**

We are aiming towards making a system that is fully centralised, secure, reliable and easy to use. Easy to use for the user as well as ticket checker. This system will eventually help in making train transportation more convenient .Also this system will help in public welfare.

**Abstract :**

Trains are a main kind of transportation tools in India. Aiming at solving the inconvenience problem of buying a ticket, the Ministry of Railways of India that is IRCTC developed an online train ticket booking system. However, the system is not efficient in terms of security ,efficiency and reliability. Thus we aim to develop a system that is completely electronic i.e. fully e-ticket booking and checking system.

**Briefs about Contents:**

1. **Introduction :**

The transportation problem has troubled India for a long time due to the big surge in passenger count. It is very hard, or even impossible for ordinary people to wait in a line to buy the train tickets in train stations, because it may costs them more than ten hours to buy a ticket. In order to solve this problem, the Ministry of Railways of IRCTC developed an online train ticket booking system Passengers can book train tickets online via signing in the website. However over the course of time issues have arisen in this system as well .

* Misusuing of ticket by identity spoofing
* Travelling without a ticket.
* Issues in coordination of ticket checkers .

1. **Technical Details :**

## User Interfaces

The interfaces provided is very user friendly. User would easily book the tickets as the help guidelines are provided at each step. The interface will be generated in the android studio.Modules will be Login and Register User , Booking of ticket , payment completion and QR code generation. All the interface would be easy to use with watermarks provided. And the guidelines to it (?). Any kind of wrong information provided by the user would display the error message prompt. Software need to design the User Interface is Android Studio.

## Hardware Interfaces

As the product is android based the hardware required for it is any android device which mainly include Mobile phone. The application can be installed in the mobile device of the user. Another hardware may used is the QR scanner but it is also available in any mobile devices by their manufacture. The interaction done by the hardware to the database is done with the help of the internet.

## Software Interfaces

android-studio-ide-173.4907809-**windows**.exe

1. **Working :**

## Login and User registration

The User need to firstly register into the application providing the details which are asked to it. It is mandatory to fill all the details. After registration of himself then he should login into the application with his username and password.

## Booking the tickets with adhar details

After login into his/her account user should book his ticket. The User Should provide his adhar number. According to the adhar number the details of the user will be searched from the adhar database.

## Payment Completion And QR code generation

After filling up the details the User need to conform his ticket by paying for it which would done by credit/debit card or by net banking.As the payment is done on the bases of the PRN number the QR code should be generated. Which will checked by the ticket checker.

## Scanning the QR code And Updation in Database

At the time of travelling the ticket checker will come to you and ask for the QR code that time he will scan your QR code and will also have your identity because of the adhar detail you provided. After Scanning on the backend the info about the user will be upadated in the database.

1. **Applications:**

* Train Ticket Booking

**References/Bibliography:**

* IRCTC
* Paytm