Metro Made Simple

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The Scope of the Project

1. This project works only for one user where the details(user name, password) are hard coded.
2. The cost of tickets are same even if you travel for only one stop or five stops.
3. There are only six metro stations named a,b,c,d,e,f.
4. The paytm number that we enter for recharge can be any ten digit number.
5. The otp ideas (otp instead of token or otp when we lost the card) are just our assumptions for the benefit of users.
6. The user can book tickets, see his bookings, recharge his wallet , and purchase a gift card in this application.
7. The aadhar card number and paytm otp are hard coded in this project.

The Scope of the Project

This project is an attempt to leverage and optimise the functionalities of metro rail with an aim to meet the objectives set. This project will enable the features which are user friendly and leverage the existing infrastructure and take it to a next level from User experience and utility perspective.

Objective

- To spread awareness about how to use the metro efficiently.
- We can take one step towards less air pollution.
- It will make the process easier for people to use the service.
- It is not just enough that we have metro system, it is all about how effectively we are able to leverage the infrastructure and functionalities of Metro rail through technology.
- Connecting the government and public transport to commoners through technology.
- Taking Hyderabad metro to make it efficient and productive as per the benchmark standards of other effective metro stations in India.

Methodology

A python basis command line application built using conditional statements, loops, and lists.

Real Time Metro Rail Project

Our team has come up with an idea to develop an application covering the below features / modules.

Modules Menu

1. Booking a tickets
2. Timings of metro
3. Recharge my metro card
4. Lost my metro card
5. Check my balance
6. About Metro
7. Show Tickets
8. Purchase a Gift card
9. Transaction History
10. Exit

1. Booking a Ticket

Current Features in L&T Metro

Option 1: Token & Smart Card

Option 2: Token Vending Machine

Option 3: T-Savaari App – We can book online on T-Savaari App by paying money through our bank account and to get into the metro rail, we must use our CSC – Contactless Smart Card.

Token Disadvantage : Within 30 mins you must get into the metro rail, or else the token will deactivated.

1. Booking a Ticket (continued)

Improvement Features Suggested

In our Project, we are displaying a 6-digit OTP which would be easier to use than using a physical token.

Now, we are not talking about the metro card, since it is already present online. We wanted show that tokens are currently not available online, for which we have created an option to get them online too.

Instead of tokens, we have given an OTP for each booking, so that it will be easier for the user to show the OTP and travel in the metro.

2. Timings of Metro

Current Features in L&T Metro

Currently, we can check online, the timings of metro and also in metro station.

Improvement Features Suggested

In our project, we also enable the user to see the timings of metro.

3. Recharge the Metro Card

Current Features in L&T Metro

Option 1: Paytm Recharge

Option 2: T-Savaari App

Option 3: Customer Care – you can either call the customer or go to the metro station and get the recharge process done.

Disadvantage: All of these processes take two hours and no less.

The recharge limit is minimum 100/- and maximum 3000/-

3.Recharge the Metro Card(con.)

Improvement Features Suggested

In our project, the recharge process takes place instantly. The amount will be added to your balance immediately.

First, it will be asking the recharge amount, and minimum recharge amount is Rs.100.

After that, you will have to enter the paytm number which will have to be 10 digits.

Next, you will have to enter the hard-coded OTP.

Finally, as you have completed, the recharged amount will be displayed on the screen.

4. Lost the Metro Card

Current Features in L&T Metro

Come to metro station and approach customer.

The customer care will be asking the following details:

Name:

Phone Number:

ID Proof:

Card ID Number:

There is no online option available.

4. Lost the Metro Card (con.)
Improvement Features Suggested

In our project, we have lost my metro card online too.

Once the phone number and aadhar number is entered, it will display an OTP which will allow you to leave the metro train if you're in a journey.

5. Check my balance Balance

Current Features in L&T Metro

Currently, we can check our balance in the ticket vending machine in metro station.

Improvement Features Suggested

In our project, we enable the user to check their balance online.

6. About Metro

Current Features in L&T Metro

Currently, we can go through information about metro online.

Improvement Features Suggested

In our project, we also have the option to check information about metro.

7. Show Tickets

Current Features in L&T Metro

Currently, there is no feature of showing tickets online nor in the metro station

Improvement Features Suggested

In our command line application, we are having this feature which will allow us to see our purchased tickets.

8. Purchase a Gift Card

Current Features in L&T Metro

Currently, there is no feature of purchasing a gift card online and also in metro station

Improvement Features Suggested

In our command line application, we are having this feature which will allow us to purchase a gift card to our convenient amount.

9. Transaction History

Current Features in L&T Metro

Checking the past transactions is only available at a metro station and not online. The only way to access the transactions is through the 'Ticket Vending Machine'. This machine will only let the users check their last ten transactions.

Improvement Features Suggested

This program allows the user to check their transactions online. It is not just the last ten transactions, but this program will show the transactions from the beginning!

Thank You!