Smart Android Application to Order Products from Train

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Abstract— Now a days when travelling in train for long distance for days together, passengers may require daily usage products or food or medicines. Passengers may face difficulties in getting the required products in the train or in the station passengers may not know how long the train stops in the station. To overcome all this issue we have come up with a solution using android app which can be used to get the required products or food items or medicines. This app will help in ordering the required materials using the train PNR number/Ticket number. The order products will be delivered in the next coming nearest station to the respective customer using train PNR/Ticket number to find the seat number. This is how a solution for the passengers to get the required daily usage materials to their seat in train without the fear of missing the train.
Key words: Indian Railways, Train PNR/Ticket Number

I. INTRODUCTION

Indian Railways is the world's seventh largest commercial or utility employer, by number of employees, with over 1.376 million employees as of last published figures in 2013.The trains have a 5 digit numbering system and runs 12,617 passenger trains and 7421 freight trains daily [Reference. 4]. As of 31 March 2013, 21,614 km of the total 65,808 km route length was electrified. Since 1960, almost all electrified sections on IR use 25,000 Volt AC traction through overhead catenary delivery [Reference.5].

A. Android

World is contracting with the growth of mobile phone technology. As the number of users is increasing day by day, facilities are also increasing. Starting with simple regular handsets which were used just for making phone calls, mobiles have changed our lives and have become part of it. Now they are not used just for making calls but they have innumerable uses and can be used as a Camera, Music Player, Tablet PC, T.V., Web Browser etc., and with the new technologies, new software and operating systems are required.

II. LITERATURE SURVEY

A. Online Shopping

Online shopping is the process whereby consumers directly buy goods or services from a seller in real-time, without an intermediary services, over the internet. It is a form of electronic commerce. An online shop, eshop, e-store, internet shop, webshop, webstore, online store, or virtual store evokes the physical analogy of buying products or services at a bricks-and-mortar retailer or in a shopping center. The process is called business-to-consumer [B2C] online shopping. When a business buys from another business, it is called business-to-business [B2B] online shopping.

A good online store is easy to navigate and browse for possible purchases. It has a product catalog that customers can use to browse the search criteria [usually a type, price, material, age, etc.] information about the products, the sellers, and the service center. Online stores may also discuss business conditions and a complaints procedure.

If a shopper finds a product to purchase, clicking "send" will add the item to the shopping cart. The shopping cart collects all items to be purchased. Once a shopper makes a binding order and payment using a credit card or other financial arrangement. Therefore, important for an online store to avoid the reduce of overall performance of the online store.

In the twenty first century, online shopping has become very popular, especially with the lifestyles of business people who are always busy and are looking for a convenient way to shop.

Online shopping has become a popular shopping method ever since the internet has declared a takeover. There are many individuals that are looking for other amazing alternatives shopping and online shipping is just to fix for that.

III. SYSTEM DESIGN

A. Aim

– To design and implement a smart android application to order required products from train using PNR number.

IV. SCOPE OF THE PROJECT

– Now costumers can get any products in train using Android app.
– NO need of fearing of missing train when trying to get food or medicines for the station.
– Products will be delivered to the customer in the next nearest station.
– Passenger can travel for long distance with comfort without fear even after forgetting the medicines or daily usage things.

V. PROPOSED SYSTEM

In order to resolve the issues regarding the availability of products to the passengers with a solution using android app which can be used to get the required products or food items or medicines. This app will help in ordering the required materials using the train PNR number/Ticket number. The order products will be delivered in the next coming nearest station to the respective customer using train PNR/Ticket number to find the seat number. This is how a solution for the passengers to get the required daily usage materials to their seat in train without the fear of missing the train.

The block diagram of the proposed system is represented in Figure 1.

The proposed system contains three modules they are:
- Server
- Android User
- Merchant

A. Server

Server is a communication gateway between android user and merchant. It is having an options like:
- Add Location Details - Location Name, Location Description and Station Number.
- Edit Location details - Location ID, Location Name, Location Description and Station Number.
- Add Merchant Details - Merchant Name, Merchant Password, Merchant Description, Merchant Category, Merchant Product and Location Name.
- Edit Merchant Details - Merchant ID, Merchant Name, Merchant Description, Merchant Category, Merchant Product and Location Name.
- Add PNR Details - Customer Name, Customer Age, From Date, To Date, PNR Number, From Place, To Place and Seat Number.

B. Android User

A Passenger who is using the Android Phone will login through PNR number and he will select the product which he needed and then he will order the product. If the passenger want to view the status of his product he can use the button available on the page and view my product.

C. Merchant

Merchant will login through his Name and Password. He will view the product and update the status and he will deliver the needs of customer or passenger on time.

This project has three blocks - one is "User" that is Android Phone and other is "Merchant" who Delivers the Ordered Product to the Customers and last one is "Server" which stands between the Android Phone User and Merchant.
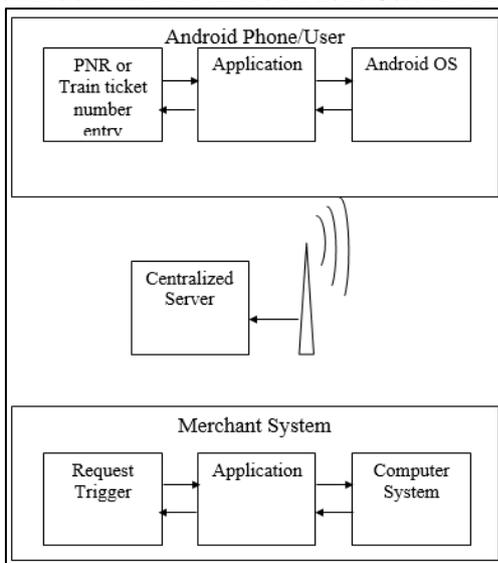

Fig. 1: Block Diagram of Train Shopping Server

The working process of this app will start from logging the App and is illustrated in the Figure 2. When passenger login the app using their PNR Number, the server checks the PNR number if it is valid then it goes for further process. After logging in a page will appear, the passenger

has to select the product from the options given in that page. Then it communicates with the server and receives the request from the mobile app. Then it communicates with the server to the merchant. When the product is delivered confirmation message is sent to the customer. At last process will be stopped.
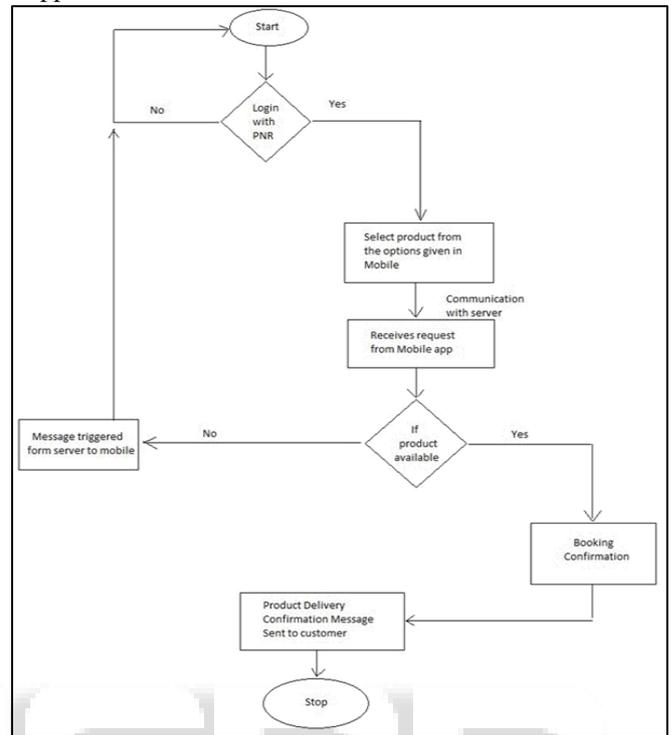

Fig. 2: Data Flow Diagram

VI. IMPLEMENTATION

Implementation is the realization of an application, or execution of a plan, idea, model, design, specification, standard, algorithm, or policy.

In computer science, an implementation is a realization of a technical specification or algorithm as a program, software component, or other computer system through computer programming and deployment. Many implementations may exist for a given specification or standard. For example, web browsers contain implementations of World Wide Web Consortium-recommended specifications, and software development tools contain implementations of programming languages.

A special case occurs in object-oriented programming, when a concrete class implements an interface; in this case the concrete class is an implementation of the interface and it includes methods which are implementations of those methods specified by the interface.

System implementation generally benefits from high levels of user involvement and management support. User participation in the design and operation of information systems has several positive results. First, if users are heavily involved in systems design, they move opportunities to mold the system according to their priorities and business requirements, and more opportunities to control the outcome. Second, they are more likely to react positively to the change process. Incorporating user knowledge and expertise leads to better solutions.

In this application after implementation client uses it for his personal requirement. He will login through the his

corresponding PNR number. After logging in he will get details about his travel, he has to select his current city, select category which displayed on screen, and select the product and confirm the booking. He can also view his booked status by going through the view product status. He will get his product in next station, he will give the after delivery.

VII. TEST CASES

The test provides input and responds to outputs without considering how the software works.

A. Test Objectives

- All fields entries must work properly.
- Pages must be activated from the identified link.
- The entry screen, message and responses must not be delayed.

B. Features to Be Tested

- Verify that entries are of the correct format.
- No duplicate entries should be allowed.

C. Test Results

All the test cases mentioned above passed successfully. No defects encountered.

VIII. CONCLUSION

Now costumers can get any products in train using this Android app. No need of fear of missing train when trying to get food, medicines etc., from the station. Login through PNR or Train Ticket Number will be security for the Passengers Money. No need to worry for the Online Transactions. Products will be delivered to the customer in the next nearest station. Passengers can get their products near to their seat. Passenger can travel for long distance with comfort without fear even after forgetting the medicines or daily usage things.

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