Android App Development for KokanRaja

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Abstract - The development of android application and implementing the concepts in the Kokanraja factory. This application will provide the digital platform for selling the fruit products using android, payment gateway and API Web services. This application will help to deliver products directly from MIDC to customers or vendors address. E-commerce is growing rapidly everyone uses android phones and the digital identity of products plays a very important role to boost the sale of products. We are developing this digital platform as per the customer requirements. Using this application anyone can buy their genuine kokan's products like happus mangoes, fruit products, etc. The objective of this project is to develop an e-commerce android app where products like fruit items anyone can place orders from anywhere using this android application. However, for implementation purposes, this paper will deal with online shopping using Kokanraja android application.

Keywords: *Android app, E-commerce, Fruit products, Customers, Vendors, API Web services.*

INTRODUCTION

Kokanraja is a fruit processing unit in MIDC, kudal which is located in Sindhudurg district (Kokan). Kokanraja is a android application to give a platform to people who are looking for buying the kokan's fruit products like mango pulps, fruit bars, toffees, candies, chips, juices and all type of fruit products. There is a growing interest in the use of e-commerce as a means to perform business transactions over the internet.

An e-commerce android application is a virtual store on the Internet where customers can browse different types of fruit products catalog and they can choose items as per their needs. The selected items may be added to a shopping cart. At checkout time, the items in the shopping cart will be shown as an order to the user. Then some information will need to enter to complete the transaction. Usually, the system will be asked to fill or select a billing address and shipping address, then it will show payment options like credit/debit card, net banking, UPI, Wallet. After successful payment then the customer will get the email about order details.

The changing technology's scenario is a wonderful opportunity for retail business to personalize and customize the experience for users. Most of the people want the real genuine products from kokan like as devgad/ratnagiri hapus mango etc. but many times we have seen in the market some vendors cheat to customers. They sell typical mangoes on behalf of hapus mango rate by taking advantage of customer's lack of knowledge about identify the right items. This issue will overcome by using this system because it will also help you to identify the right products.

I. LITERATURE SURVEY

We prefer different research papers related to android application development and different technologies currently used for android development. We studied 'Real-Time Databases for Applications technologies'[1] cloud computing is infrastructures that provide more benefits for Kokanraja high-performance computing, crash reporting, centralized data storage, scalability, and remote services access. As usual, Cloud users can access cloud services through Internet-based interfaces using the web browser and Clouds offer the source provision "as a service". For eg. Google cloud platform which is firebase, Amazon web services (AWS), etc. which provide different features like as up to manage real-time databases, login authentication centralized data storage, update products and it will keep up to date for all users but it has also drawbacks like data migration is not easy. It is a paid but some features are free for use. GPUs that increase performances of the system also support the concurrent operations.[1]

We have gone through different research papers of System architectures and methods like Recommendation Systems, Classification Systems. There are numerous of recommendation systems and algorithms which are used by many web applications for recommendation purpose. These algorithms mostly classify and filter different items according to many aspects like behavior or based on some mathematical model and provide the result to the user.[3]

Many of these algorithms are machine learning algorithms so it does not require any human interference for e.g. Recommendation on algorithm likes content base filtering or item base filtering. Such an algorithm will be very helpful in our application to recommend different fruit products or selecting the best items as per the customer behavior.

Cloud platforms which we study also support these recommendation systems and provide many features to use in a very effective way for suggesting items to customer.

II. CURRENT SYSTEM

They uses the traditional method for ordering fruit products by directly contacting to the seller through only calls. It will take lots of time to deliver the fruit items.

Limitations:-

- Placing Order timing is fixed only in operational hours.
- Difficult to manage and scheduling orders.
- Delay in payments due to credit based transaction.

III. PROPOSED SYSTEM

We want to develop a android application for this kokanraja factory. Due to this proposed system customer can buy fruit products at anytime from anywhere without any time limitation using this system.

Due to the number of orders it is very difficult to manage and scheduling the orders manually with the help of this proposed system it will manage and scheduling the orders is easy to the use of admin panel and web server. It will manage data in just few clicks. Also we can able to take the backup of the system in our disk.

In traditional they use an credit based transaction sometimes vendors delay for payments after delivering the products but this issue also overcome in this system we integrate the payment gateway method for accepting the payments from vendors or customers. So it will helpful to collect the bill amount from the vendors/customers on time.

Our application mostly depends on three main aspects which are

A. Admin :-

A admin is a person who wants to manage the admin panel at the seller side for monitoring & managing vendors and customers orders.

B. Vendor-

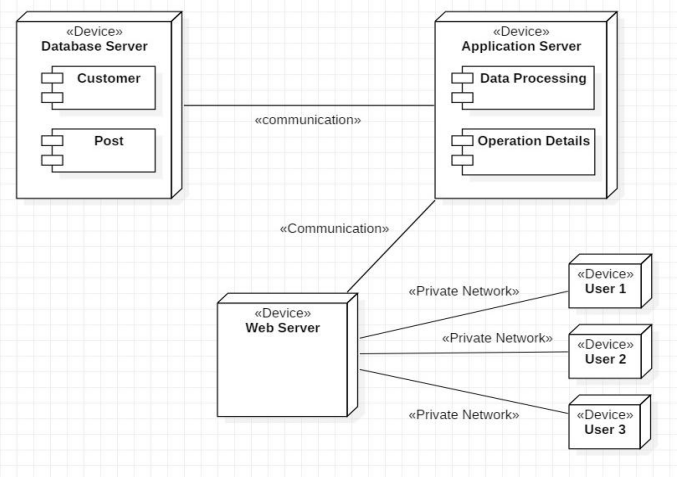
A Vendor is a person it is an who wants to place orders. It is an type of B2B type of e-commerce.

C. Customer -

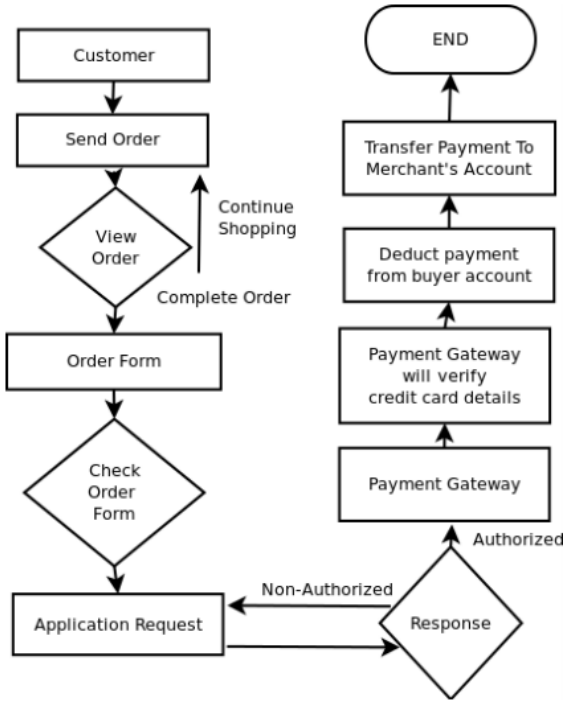
A customer is a person for placing orders. It is an type of B2C type of e-commerce.

Our system is based on these aspects A admin can able to add, delete, update products in the app dynamically and also view and maintain the order details, payment details, Shipment details, feedback, in the admin panel.

IV. SYSTEM ARCHITECTURE



FLOWCHART OF PAYMENT GATEWAY SYSTEM [4]



A. Registrations:

- Hassle-free registration process the user can register using a mobile number or email with the help of getting OTP which is received while registering then User needs to provide essential information like user type, name, vendor or customer.

B. Browse Products: (Vendor/Customer)

- Customer can browse the catalog of fruit products as per their needs.

C. Shipping Cart: (Vendor/Customer)

- It hold the items which is added by the customer or vendors in shipping cart.
- It will show the items while checkout.

D. Payment Gateway:

- When the customer or vendor shop online and click on make a payment, the payment is made through the payment gateway. A payment gateway is an e-commerce service that authorizes to the user for accepting payment through Cards, Net-Banking, UPI, wallet, etc. using this payment gateway amount will credit from buyer to seller's account. Since the user is usually required to enter his card or Net-banking details while doing the transaction process, the payment gateway is often carried out through HTTPS protocol which represents the secured payment thereby ensures the safety of the transactions.
- After checkout it will show the payments option for accepting the payments via credit/debit card, Net-Banking, UPI, wallet or Cash on Delivery.

E. View Orders:

- Admin can view the orders which is placed by the vendor/customers for dispatching the order as per the customers details.

F. Add Items:

- Admin can able to add new items in the system.

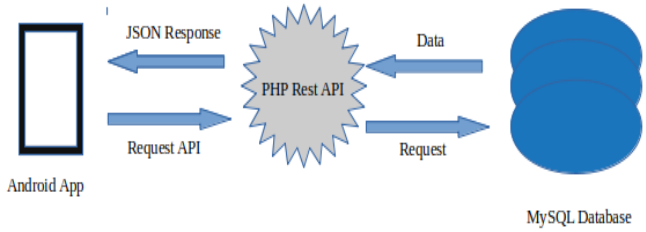
G. Feedback:

Both vendor and customer can review and rate the items so it can letter useful for recommendation.

V. MODELS

A. Web Services:

A web service is used to provide a standard for exchanging information between different types of applications irrespective of language and platform. For example, an android application can interact with java or PHP application using web services.



B. Cloud Platform:

Cloud computing is becoming a prevailing provision of computing infrastructures for the enterprise and academic institutes towards enjoying a multitude of benefits: Kokanraja high-performance computing capacity, location-independent data storage, and high-quality services access. As usual, Cloud users can access cloud services through Internet-based interfaces and Clouds offer the source provision "as a service". For example, Cloud providers offer Infrastructure as a Service (IaaS) that provides visualized computing resources that can host the users applications and handle the associated tasks.

E.g. Google App Engine is one example of PaaS that is geared with a variety of tools such as Python, Java, and SQL. Other types of Cloud services include Software as a Service (SaaS) in which the software is licensed and hosted in Clouds; and Database as a Service (DBaaS) in which managed database services are hosted in Clouds.

C. Recommendation System

It is used to recommend the items to users which are the most relevant items using content-based filtering.

D. *MySQL Database*

It is an open-source database used to store the data of kokanraja like fruit product details. For fetching data into the android application we use the PHP rest API then it will fetch data by using JSON.

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CONCLUSION

In this paper development of android application is introduced for the Kokanraja factory. Using open source technology like as android will helpful to integrate payment gateway system for this e-commerce application. The firebase cloud platform it will easy to authentic user. Anyone can order fruit products using this application. This android application will be superior against their current system, its advantages and benefits will surely deliver to buyers and sellers.

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