

# DESIGN OF ONLINE SHOPPING CART USING PRESTASHOP E-COMMERCE

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## ABSTRACT

*E-Commerce is a consumer and delivery individual shopping cart program. The main objective is to provide consumers with smart security service. This system provides good and efficient information, making the service more intelligent. Browse the catalog and order the products online is an app for consumers. Multiple stakeholders can order with full security and control using the power of the Internet. This program collects and stores all kinds of information about the order type choices that govern an order's life cycle. This offers a marketing and controlling end-to-end solution. Only with a tap can the information be accessed from anywhere by following this new approach. It helps users to save a lot of time and provide up-to-date information to the user. The software helps enhance customer and supplier support. We can monitor and control the positions and accuracy in this application. It can enable the vendor to monitor their data. The application's central concept is to allow the consumer to shop online using the Internet and enable customers to purchase from the store items and products of their choice. Each data can be easily manipulated by our GPS system through a centralized database. The database handles the shipment of customers and products to their submitted address. This software also allows us to track where we are. As an established and used market model, e-commerce is rapidly gaining ground. It is reasonable to say that the shopping cycle on the internet becomes a common place and continuous services.*

**Keywords:** E-Commerce, GSM, Preemptive Schedule, Non-Preemptive Schedule

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## 1. INTRODUCTION

E-commerce provides an easy way for a large customer base to sell products. Today e-commerce applications for a day are coordinated by websites and applications themselves. This can be easily modulated and the respective products can be organized in a single data. Upon completing an order, either cash-on-delivery mode will be redirected to the payment merchant page, we will add the item once in a location that will be connected to the cart. We use SMS / E-mail to monitor our position choice. In the form of scheduled dates and respective orders, we can monitor the venue. In the context of an overall overview, a delivery person often monitors all pick-up and delivery orders. This is a hard way to deliver / pick up the product on time. We can't find locations by way of the location of the client. This is one of the biggest problems when the software is used.

The e-commerce project will help us develop an innovative one-step system for both consumers and vendors. Because the software organization is a very good user experience when interacting. Similar products are organized with the help of location accuracy in the same functionalities. This software will monitor and summarize the easily modified locations.

This paper focuses primarily on e-commerce customers who can organize via a single cart and delivery boy also use the specific application that can access the cart that can be evaluated and accessed via a centralized server. This can be organized easily by means of single data. This software can order an item easily sustainable through a cart and handle the respective locations. A position can be divided by latitude and longitude. A delivery person can organize pickup, delivery and both locations also that is to very easy to organize.

## 2. LITERATURE SURVEY

The paper [1] offers safe alternative brand monitoring and verification. The product is verified and its location is tracked. This moves the item to each other from one distributor. The server will provide the product details. The location monitoring by map of the customer offers the location details. Transformation is made possible from one distributor to another. The details of the customer are kept secure. Mainly focus on customer data monitoring and validation. Tracking is done mainly by map. To meet the destination, they have alternative paths. The brand confirmation and its place of monitoring were collected. It focused mainly on the validation and payment of the material. The paper focused mainly on the validation of the material. Then the customer will not receive the monitoring email.

Tracking a movement of the vehicle is not a small thing. A vehicle movement is achieved in this paper through the temperature, speed and location of the vehicle and then uploaded to the cloud via a GSM network. The paper contains the main parts: the application for tracking, cloud, and Android. The process is battery-dependent. This is the method of tracking smart vehicles. [2] The number of units included in the monitoring. The smart chip will be mounted in the vehicle to track the movement of the car. Placing the chip in the vehicle offers limited coverage range. The vehicle's movement was monitored using the cloud. The place of delivery is fixed in the chip. The main problem identified is that tracking is using the minimum number of vehicles. The route is then pre-defined and the delivery person will not be given a changed address. The chip provides location details and is processed in the central database for location data. The energy is obtained by location tracking. The place of distribution is fixed, so the alternative route is not given. The Constrain received confirmation of the delivery person and the database in the process. The main drawback is that there was less location monitoring in the device. And for just some car, the chip is put. It is not sent to the user to track the message.

Most companies participate in direct sales in competitive online face-to-face platforms and compete with conventional retailers. They supplied the traditional distributor of the standard product. [3] Customization was provided by modeling the company's conversation. Second, the

manufacture provided by online personalized consumer is the parallel improvement area, where retailers and manufacturers are enhanced. Furthermore, the manufacture offered by online personalized item does not automatically lead to a reduction in retailer prices. This paper analyzes the following stages: the manufacture selling the item to the consumer, the awareness of the personalized rate and the satisfaction of the benefit for the distributor and manufacture, and the customization stream. Digital customization platform will satisfy this and satisfy customer satisfaction. We found in this paper a two-stage supply chain in which the manufacturer sold the generic goods through the distributor and sells the personalized range. Impact the flexibility on the approach of the business advertising. The main drawback is the date when the item is shipped is not accurate and the specifics of the purchase are not specified. The delivery date is not provided by this journal.

E-commerce stands for electronic commerce.[4] This means dealing with goods and services via the digital media and internet. Using a shopping basket or virtual cart device, the customer from the website allows payment through debit card, credit card or electronic transfer payments. The distributor translates the customer's order for the item. In India, e-commerce is growing in a wide range. The process used to gather information and data to make business decisions. They used only secondary data from different articles, newspapers, books, websites, etc. It was used to study the assessment, conceptual framework, definition, key players, present trends, future e-commerce prospectus and barriers. While being the world's third largest user base, e-commerce penetration is low compared to markets like the U.S., United Kingdom, or France, but is growing much faster, attracting about 6 million new entrants every month. The opinion of the industry is that development is at a point of inflection. In India, the most preferred method of payment is cash on delivery, collecting 75% of e-retail operations. International consumer product demand (including long-tail items) is growing much faster than domestic supply from authorized distributors and e-commerce offers. They analyzed internet and e-commerce use in India in this paper. Many people make effective use of the web product and reduce their time. The main drawback is that e-commerce vendors do not need to keep large inventories or costly store showrooms. Logistics has been a major issue for India's online retailers, forcing them to develop their own strategies in the absence of existing cash-on-delivery (COD) and same-day deliveries handling systems.

Wal-Mart and Amazon [5] are mainly calculated in terms of price and convenience. They used in Wal-Mart to drive down the cost and support for low cost efficiently. Amazon's main objective is to provide the customer with a high-level service and the optional choice is to choose their delivery service on their own. Amazon and Wal-Mart use a variety of models and infrastructure. The methodology used in these firms was the method and process of supply chain to support their initiative. Wal-Mart has invested in IT and technology. Amazon uses size, range, and single operation system. Both Amazon and Wal-Mart have focused on different things, but they are using the same approaches. The customer budget was analyzed by Wal-Mart and focused on the price. Amazon guarantees the provision of a standard service and methods of product delivery. In [6] paper the customer needs and services are acquired according to their needs. The methods of distribution are faithful to the client. Options such as cash on delivery, credit card, debit card. Wal-Mart's distribution costs are inbound and outbound and persuade the distributor to help the shop. Amazon used more hubs for transport and the cost of transport is high.

A decision-making algorithm based on Dempster – Shafer and adaptive neuro-fuzzy inference (DSANFI) framework is implemented for knowledge fusion. [7][8] The proposed hybrid research is applicable in the context of data fusion based on Dempster – Shafer's conceptual method and then on ANFIS. Classify users as spammers, content promoters and legitimate users by creating a test collection of real YouTube users that allows us to classify

content, individual and social attributes that help to characterize each class of users. We use SVMKNN, an active learning approach, for successful classification.

### 3. PROPOSED SYSTEM

The proposed system has been designed to support next-level business applications. In a single tab, programs can be grouped and a number of services are available. Every type of user-related information will be available when needed and will also ensure that customer details are stored immediately. This software provides multiple users and delivery boy can be coordinated. It also offers reliability solutions to clients and vendors.

In this design methodology, after completing an order that will be redirected to the payment merchant site either cash-on-delivery mode or online payment mode, we can add the product once on a site that will be added to the cart. The user location tracking option is available via SMS / E-mail. In the form of scheduled dates and respective orders, we can track the location. In the context of an overall overview, a delivery person often monitors all pick-up and delivery orders. This is a hard way to deliver / pick up the product on time. We can't easily find the location of the user. This is one of the biggest problems encountered while the software is being used.

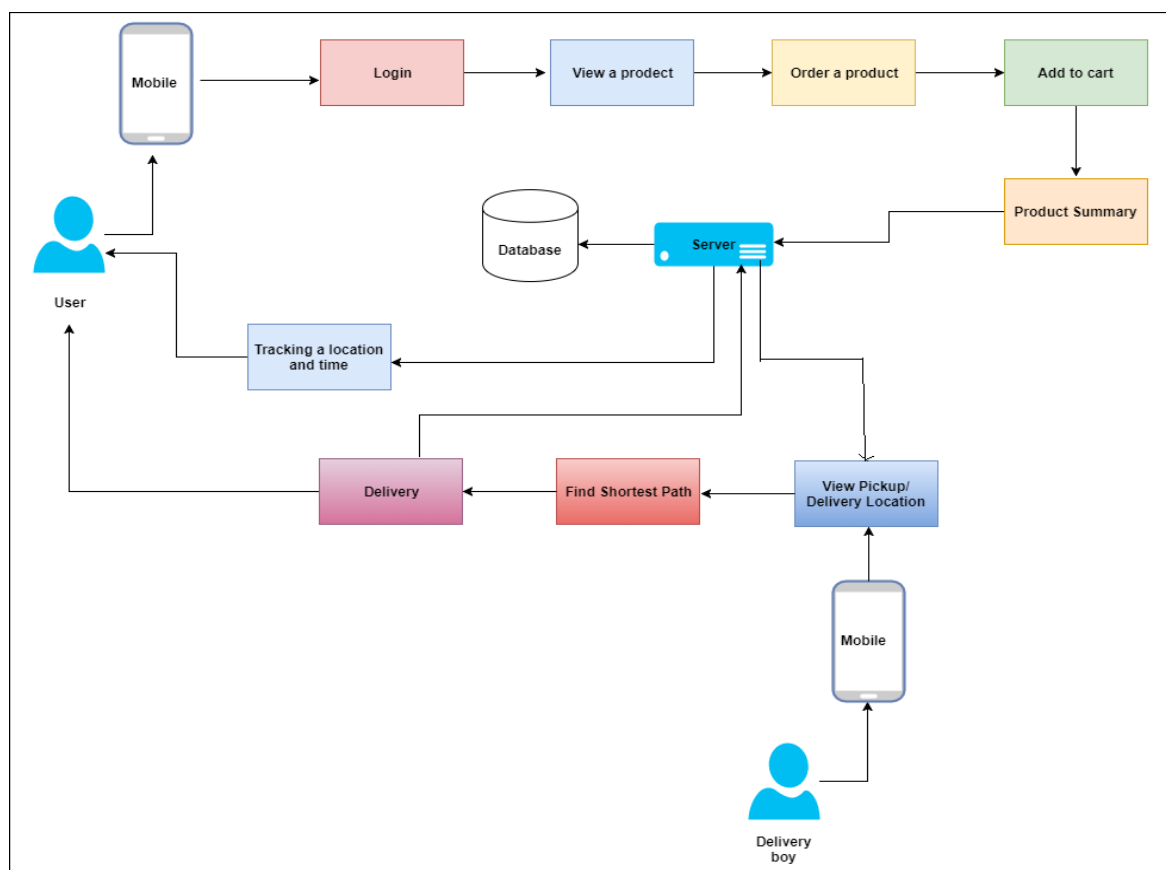


Figure 1 Proposed Architecture

#### 3.1. MODULES

- Authentication Module
- Ordering & Scheduling Module
- Tracking Module

### 3.1.1. Authentication Module

The client can easily login and create an account through the application in this module. The values that can be authenticated by one-time code can be validated. Duplicate records are deleted and other information are kept secure.

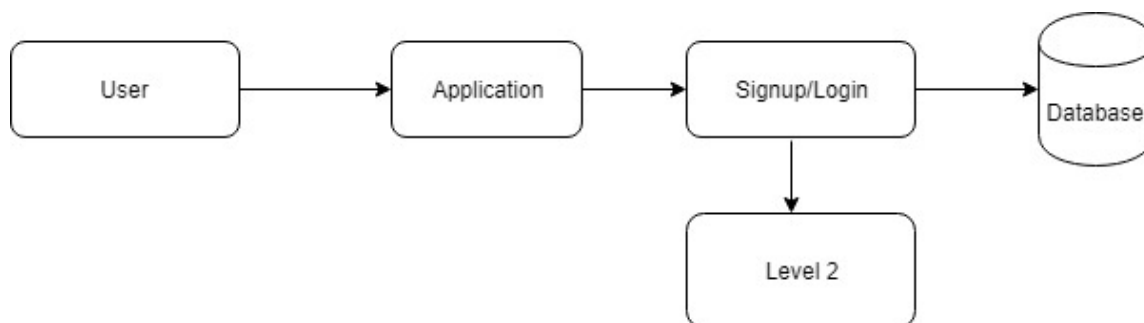


Figure 2 Authentication Module

### 3.1.2. Ordering & Scheduling Module

In a specified combination, we can order different products that will be explicitly assigned to the particular account. Users will shop their items and pay online or cash on delivery for their order. The first planning form of the shortest job is used to plan the orders. The orders can be scheduled by location and time. Pre-emptive and non-preemptive approaches are planned for them. The instructions are arranged according to their position in pre-emptive process. It is also possible to take the missed orders for shipment. But the delayed orders cannot be rescheduled for delivery in the non-pre-emptive process after the orders are scheduled. For prepare the instructions, we use pre-emptive process. And this method is an easy shipping method.

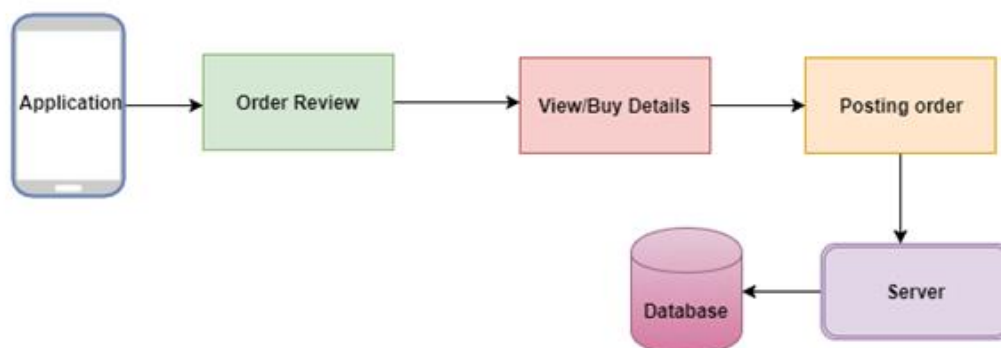
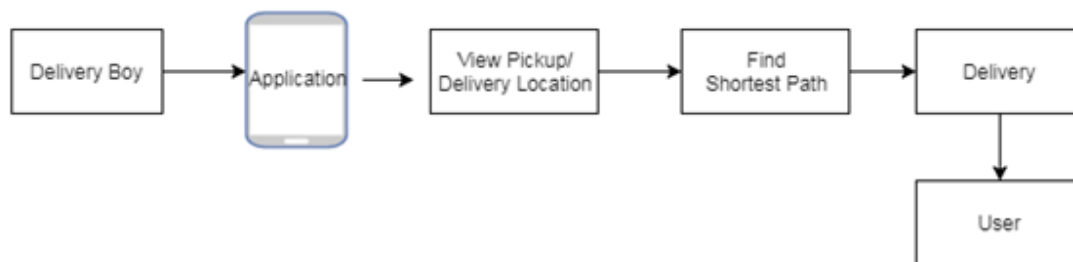


Figure 3 Product Ordering Module

### 3.1.3. Tracking Module

Once the order is received, the email will be checked through the server of e-commerce. User can finally monitor the position through a scheduled map. In this unit, the monitoring will be consistent when traveling and arriving good-down once the order starts by shipment from the center. When delivery receives the delivery boy who immediately determines the location of the customer. Seller can monitor all kinds of locations such as pick-up and delivery.



**Figure 4** Tracking Module

### 3.2. ALGORITHM DESIGN

Steps For K-means Clustering

Let X be the set of data points= $\{x_1, x_2, x_3, \dots, x_n\}$  and  $V = \{v_1, v_2, \dots, v_c\}$  the collection of centers.

- 1) Pick 'c' cluster centers at random.
- 2) Calculate the distance between the cluster centers and each data point.
- 3) Assign the data point to the cluster center with a minimum distance from the cluster center of all cluster centres.
- 4) Recalculate the new cluster core using:  $V_i = (1/C_i) \sum_{j=1}^n C_{ij} x_j$  where 'this' is the number of data points in the cluster.
- 5) Calculate the distance from each data point to the new cluster centers collected.
- 6) If no data point has been reassigned, stop, repeat phase 3 otherwise.

### 4. EXPERIMENTAL ANALYSIS

Training is a collection of tasks that can be regularly planned and carried out in advance. For this purpose, a framework of software testing should be specified for the application system as a set of steps in which we can place specific test case development techniques and test methods. Testing also requires more time than any other practice in software engineering. If it is done haphazardly, time will be lost, needless energy will be extended, and worse, errors will creep through undetected. Therefore, implementing a rigorous software testing policy would seem rational.

#### 4.1. Test Case for Ordering the Product

S. No	Test case ID	Test description	Test procedure	Test input	Expected result	Actual result
1.	TC-4	Select the category to order the product	Click category from the list.	Select the required category by clicking On it	Displaying of the products	The product is displayed successfully
2.	TC-5	Select the product from the list	Click on the product	Order the product by clicking on the product	Displaying product details	The product details are displayed successfully
3.	TC-6	Order the product	Click the required product	Order the product by clicking on it	Product ordered	Product ordered successfully

S. No	Test case ID	Test description	Test procedure	Test input	Expected result	Actual result
4.	TC-7	Select the payment mode	Click on payment icon	Pay money through online (debit card, credit card)	Payment has done	Payment has done successfully
5.	TC-8	Select payment mode	Click on payment icon	Pay money through cash on delivery	Payment has done	Payment has done successfully

#### 4.2. Test Case for Delivery Person

S. No	Test case ID	Test description	Test procedure	Test input	Expected result	Actual result
1.	TC-9	Delivery person login	To provide delivery person details	Email id: "bcd@gmail.com", password:"cds"	Logged in successfully	Logged in successfully
2.	TC.10	Collects the customer and product details	Collects the customer and product details from the database	Collects the details from the database like name, address and product.	Details are taken successfully	Customer details and product are taken successfully
3.	TC.11	Send message to the customer	Send message to the customer about the arrival	Sends the message to the customer by clicking on the message icon	Message sent successfully	Message sent successfully
4.	TC.12	Product received message is send	Product received message is send to the customer and server	Message has be sent by clicking on message icon	Message has be sent successfully	Message has been sent successfully

#### 4.3. System Test case Log

S. No	Test case ID	Test description	Report
1.	TC-1	To check whether the account is created in the application	PASS
2.	TC-2	To check whether the account is logged in successfully	PASS
3.	TC-3	To Check whether the required fields are entered correctly	PASS
4.	TC-4	To check whether the category list is selected successfully	PASS
5.	TC.5	To check whether the product are selected successfully	PASS
6.	TC-6	To check whether the product Ordered successfully	PASS
7.	TC-7	To check whether the payment is done through online successfully	PASS
8.	TC-8	To check whether the payment is done through cash on delivery	PASS

S. No	Test case ID	Test description	Report
9.	TC-9	To check whether the delivery person logged in successfully	PASS
10.	TC-10	To check whether the customer details and the product are provided correctly	PASS
11.	TC-11	To check whether the arrival message is sent to the customer	PASS
12.	TC-12	To check whether the product received message is sent successfully	PASS

## 5. CONCLUSION

Track the e-commerce process and the delivery service in this program. The distribution service is currently not in an effective manner. This application includes k-means algorithm clustering to provide the shortest route to the delivery person. The user can also track the delivery of the product without delay on departure, arrival time and location. Through this application, it provides a safe purchase and delivery of products. Most people now use the e-commerce software for days and provide support to the customer. With most of the demand, a successful service is provided in the purchasing of goods, but not in the delivery service. The potential development focuses on improving the process by offering the map facility to conveniently find the customer and deliver the item to the destination without delay. Not only does the shortest path provide for shipping the goods, but many more items will also be used in the future.

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