Acknowledgement

Firstly, we owe our deepest gratitude to the Department of Electronics and Computer Engineering, IOE, Pulchowk Campus for providing us with an opportunity to work on a Minor project as part of our syllabus. It is an honor for us to express our gratitude to our project coordinator to **Er. Jalauddin Mansur** for their constant support and guidance throughout the project.

We are grateful to all our teachers for their suggestions and inspirational lectures that paved towards the completion of this project.

We are also obliged to all the individuals and groups who have directly or indirectly assisted in the preparation of this project.

Finally, we extend our gratitude towards **Kathford International College of Engineering and Management** for providing the opportunity and the required environment to do this project.

We would humbly welcome any suggestions and guidance for the improvement of this project.

Abstract

Online Piazza for Home Appliances are a form of electronic commerce which allows consumers directly buy home appliances from a seller over the Internet using [a web browser. Alternative names are: e-web-store, e-shop, e-store, internet shop, web-shop, web-store, online store, online storefront and virtual store. Mobile commerce (or m- commerce) describes purchasing from an online retailer's mobile Optimized online site or app. Home Appliances Piazza is the platform whereby consumers directly buy electric appliances, services etc. from a seller interactively in real-time without any intermediary service over an internet. Since the emergence of the World Wide Web, merchants have sought to sell their products to people who surf the Internet. Shoppers can visit web stores from the comfort of their Homes and shop as they sit in front of the computer. Consumers buy variety of items from online stores. In fact, people can purchase just about anything from companies that provide their products online. Books, clothing, Household appliances, toys, hardware, software, and health insurance are just some hundreds of products consumers can buy from an online store.

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Acronyms

GUI	Graphical User Interface
OS	Operating System
ERD	Entity Relationship Diagram
PHP	Hypertext Processor
HTML	Hypertext Mark-up Language
SDLC	Software Development Life Cycle

XAMPP

X: Cross platform

A: Apache server

M: MySQL

P: PHP

P: Perl programming language.

1.0 Introduction

Home appliance, also called Household Appliance, any of numerous and varied electric, electromechanical, or gas-powered devices introduced mainly in the 20th century to save labor and time in the household. Collectively, their effect on industrial society has been to eliminate the drudgery and drastically reduce the time long associated with housekeeping and homemaking. Home appliances have had little or no effect outside the world's urban communities, but within these communities they have had a profound, even revolutionary, impact in social and economic terms. These devices have, for example, facilitated the establishment of single-person households; in two-parent families, they have enabled both parents to enter the labor market and have otherwise freed large amounts of time and energy that homemakers formerly devoted to preparing food and to laundering, house cleaning, and general housework. Hence, a further result has been the greatly diminished employment of persons engaged in domestic service. The trend toward using automatic and powered household implements to ease basic housekeeping chores, once established, soon extended into such additional fields as personal hygiene and grooming.

1.1 Background

The idea of our group came up with the project is to model an online shopping platform for home appliances. The online piazza for Home appliances will deal with customers choosing items to buy from a different variety such as electrical gadgets. The database will keep track of the customer details buying appliances from the shop. Also there will be record of suppliers for different electrical items along with stock details. Also, if the electrical items need to be shipped, we will maintain the gadget shipping details for the items. The application that we plan to create will allow a user who in this case could either be a customer or an employee to perform all of the CRUD (Create, Retrieve, Update, and Delete) actions on the data contained within the database. There will be a login differentiating customers and employees and each can perform specific functions. A new customer can register, select items to buy, pay for them and request them to be shipped. An employee, on the other hand could check the gadgets supplies, add or delete information regarding the appliances and retrieve any information regarding customers or products if

necessary. Our application would consist of a basic graphical user interface that will be intuitive to use. The data entered in the GUI will be used to populate the database to communicate between our appliances and the database.

1.2 Overview

Online piazza for home appliances is all about ecommerce website so there will be direct interaction between the customers and the system. The main purpose of this system is convert the home appliances shopping system from manual to online. Our system is dynamically connected to the database so any change in database is automatically cause change to the system. We used XAMPP it contain MySQL database for the system and apache server it help in the connection between database and system. System contain lots of home appliances and customers can buy the appliance by adding into the cart and moving further steps ahead and they need to pay using their PayPal account by entering valid username and password. As per customers need they can buy multiple quantity of same appliances. They can edit their cart and can search the different appliances by using product keywords. They can check price of different appliances and also can create their account by filling registering form.

1.3 Problems Statement

This project is online ecommerce website it solves many problems to give better solution towards the customer. It minimizes the troubles for a customer to walk through a brick and store for the appliances. Customer don't have to go shopping by walking, they can directly get access online so this helps in consumption of time. Customer don't get their required appliances so it helps to get the branded appliances as per customer required. Home delivery of the appliances also done so it reduce the problem to bring the appliance home. It also maintain the quality of the appliance so it reduce the problem to choose the appliances and save the money buying the quality appliances.

1.4 Objectives

The main objectives of this project are:

- To buy and search different appliances in the comfort of your own home by knowing about various latest and old home appliances of different Category and Brand.

1.5 Scope

The online system is an easy-to-use self-service system which enables the customer to buy appliances online and pays the amount through their valid account. Customer can register as a member to our system before they buy appliances. Besides the customer, another use of the system is administration staff. Admin staff has to keep updating system in regular basis. As the customer don't need to roam round in order to find the right and suitable product for them. This will make shopping easier, faster and systematic.

2.0 Literature Review

The online Home appliances shopping is an easy to maintain, ready to run scalable, affordable and reliable cost saving tool from software associates suited for small, medium, and large shopping complex and shopping malls[1]. English entrepreneur Michael Aldrich invented online shopping in 1979. His system connected a modified domestic TV to a real-time transaction processing computer via a domestic telephone line. The similar projects regarding the online shopping system are synopsis, computer components online shopping. Likewise, e-Sewa is the Nepal's first payment gateway. The safe, easy way to pay online. Pay without exposing credit card number, bank account number to the merchant. The payment in e-Sewa [2] is done over a secured channel without exposing bank account or credit card numbers to the merchant where you pay your bills. E-Sewa does not charge any amount for using service however it charges in some cases for delivering goods and services. It is an associate service of F1 soft international launched on 21 January 2010. It facilitates its user to pay and get paid online. Its headquarters are located at Hattisar, Kathmandu, Nepal. The other e-shopping sites of Nepal are; Kathmandumart.com, NetforNepal.com, Nepal Rudrasha, Pasminarus.com, Muncha House, etc.

The current shopping system is critical to set up online shops, customers to browse through the shops, and a system administrator to approve and reject requests for new shops and maintain lists of shop categories. This is a large scale project for online gadget shopping. The basic idea is that the candidates can buy gadgets from anywhere during anytime by using their card number and password provided to them. The database will maintain the product details information. Customers can view their product details using the card detail. This project also provides security with the use of login-id and password, so that any unauthorized users cannot use your account. The only authorized that will have proper access authority can access the software. The online electrical Home items shopping enable vendors to set up online gadget shops, customers to browse through the gadget shops, and a system administrator to approve and reject requests for new electrical gadgets and maintain lists of shop categories. Also the agenda is designing an online electric gadgets shopping site to manage the appliances in the shop and also help customers

purchase them online without having to visit the shop physically. Our online electric gadgets shopping will use the internet as the sole method for selling items to its consumers. Shopping will be highly personalized and is more competent than other projects.

3.0 Project Methodology

Each team member will be assigned several task of the project on the basis of their interest in particular portion of this project. Weekly meeting will be held to assess the status of each member and to facilitate re-structuring of plans when required. Project documentation will be performed by the respective team members at the end of each task. Regular discussion with the project mentor will be held to gather suggestions related to the project to update him about the progress of the project.

Sublime text (text editor) and XAMPP will be the development tool that will extensively use by all the team members. XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes. Everything needed to set up a web server – server application (Apache), database (MariaDB), and scripting language (PHP) – is included in an extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac and Windows. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server extremely easy as well. We keep our backup to the Google drive and share our codes with each other to communicate.

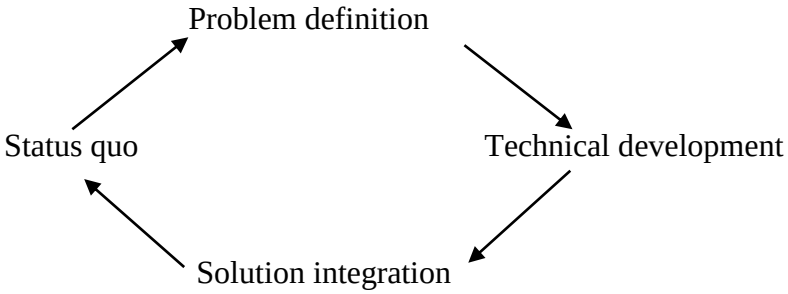
3.1 SDLC Model

SDLC model describes the flow and control of tasks to be performed and managed to make a successful software.

A model is based on:

1. Nature of project
2. Application
3. Methods and tools to be used
4. Controls and delivers etc.

3.2 Foundation of Any Model: Problem Solving Loop



3.3 Waterfall Model

- Classical lifecycle or linear sequential model
- Simple and widely used systems.
- Oldest model
- Provides systematic and sequential approach to software engineering and consists of following phases in the cascading fashion:

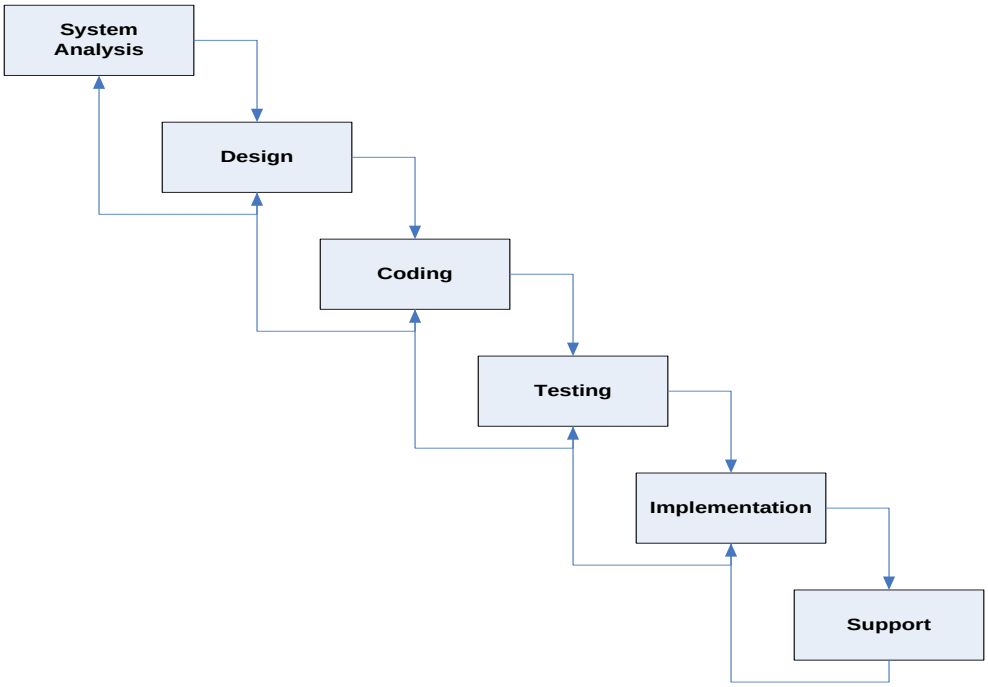


Fig 3.3 Waterfall Model

4.0 System Design

Systems design is the process of defining the architecture, components, modules, interfaces, and data for a system to satisfy specified requirements. Systems design could be seen as the application of systems theory to development. There is some overlap with the disciplines of systems analysis, systems architecture and systems engineering. System is created in order to meet the needs of the users. It is not only intended to solve the existing problems, but it also come up with acceptable solutions to the problems that may arise in the future. The whole process of system development, from blueprint to the actual product, involves considering all the relevant factors and taking the required specifications and creating a useful system based on strong technical, analytical and development skills of the professionals.

4.1 Block Diagram

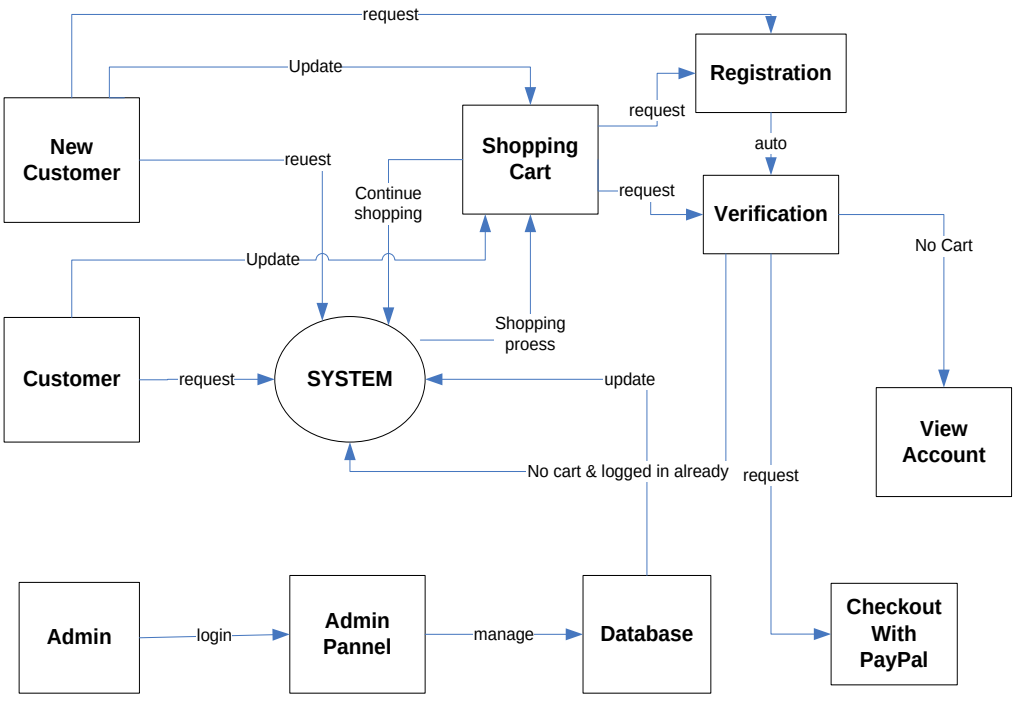


Fig 4.1 Block diagram

This block diagram shows various process executed of the project "Online piazza for home appliances", where we can see the customer as well as new customer can

request for the system. The admin login admin panel and manage the content of database which is dynamically update to the system. If the customers add the appliances to the cart then by login the page they can buy the appliances easily by moving next step checkout with PayPal. If there is no item in the cart then by logging they automatically move to the customer account page. New customer can also access to the system and can add item, delete item and update item and they need to register their account first and by logging their account they only buy the appliances. They can also update their account as well as shopping cart.

4.2 ER Diagram

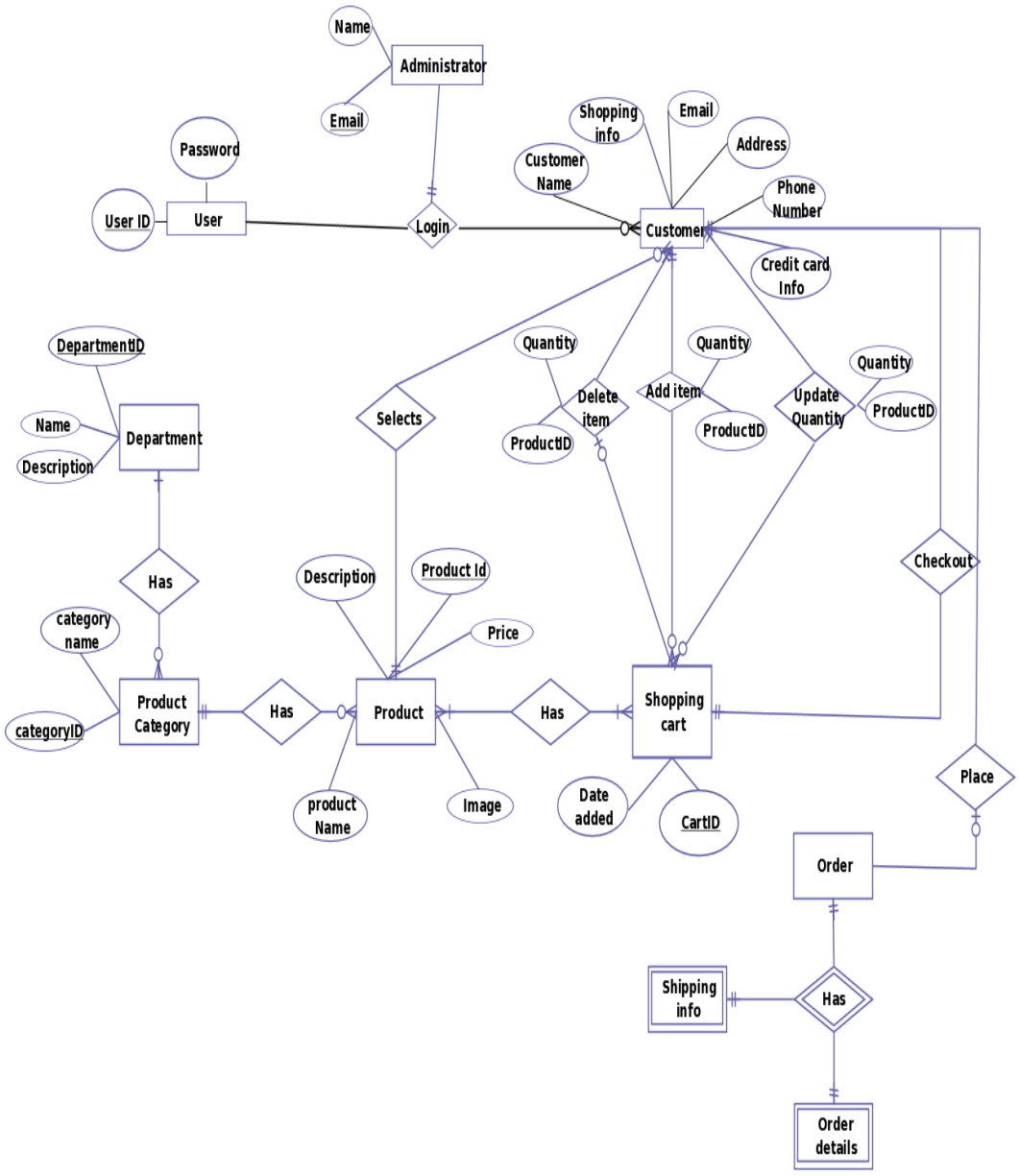


Fig 4.2 ERD for Online Shopping System

An entity-relationship diagram is a graphical representation of an information system that shows the relationship between people, objects, places, concepts or events within that system. An ERD is a data modeling technique that can help define business processes and can be used as the foundation for a database. This figure represented that User has two attributes user id and password, they can login to the either Admin section or Customer section by providing specific attributes.

Customer has many attributes they can Checkout, Update quantity, Delete item and Add item to the Shopping cart with self attributes. The customer has a relationship with Order and it has a two weak attributes. Checkout has a relationship with Product having different attributes.

4.3 Use Case Diagram

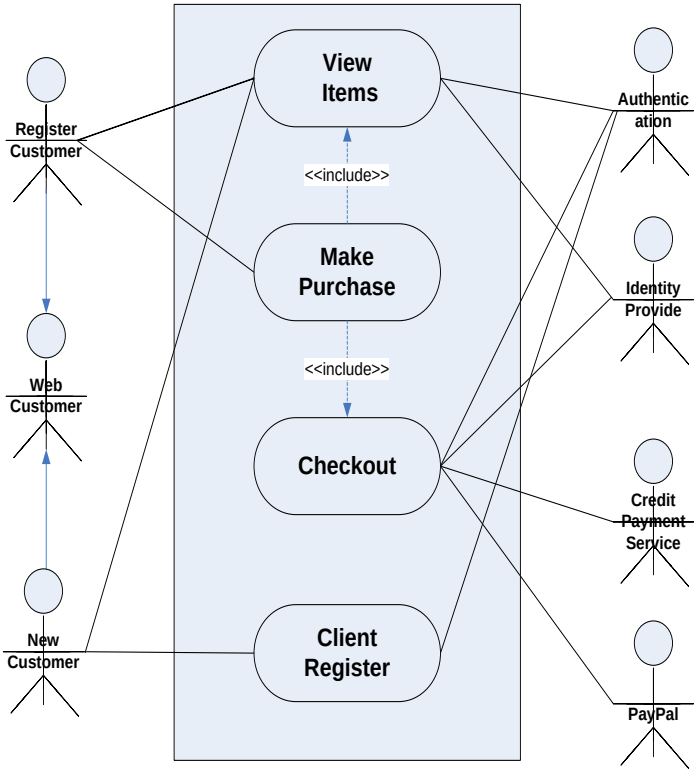


Fig 4.3 Use Case Diagram for Online Shopping System

Use case diagram is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well. Above figure also shows the relation between actor and system where the different actor has a relation with the different systems. New customer can view item and after registering the account they can make purchase and registered customer can view item as well as they can make purchase easily. So in this way they can make purchase by using their PayPal account.

5.0 Results and Discussion

We designed a web platform for an e-commerce site. This works for human comfort .From our site user can order electronics appliances from their own place. PayPal is the online payment gateway in our site. Shopping cart is also added in the site. We used various languages tools for completion of this project such as PHP, HTML, and CSS etc. PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language.HTML is a markup language for describing web documents. And CSS is used to give the beauty to the front end of our project.

MySQL is a database system that used on this website. It runs on a server that ideal for both small and large applications and it is very fast, reliable, and easy to use. Our database is based on the relational database model. It is most widely used data model for commercial data processing because it is simple and easy to maintain. A relational database organizes data in tables (or relations). A table is made up of rows and columns. A row is also called a record (or tuple). A column is also called a field (or attribute*)*. A database table is similar to a spreadsheet. However, the relationships that can be created among the tables enable a relational database to efficiently store huge amount of data, and effectively retrieve selected data. A database organized in terms of the relational model is a relational database. The relational model's central idea is to describe a database as a collection of predicates over a finite set of predicate variables, describing constraints on the possible values and combinations of values.

Our system can perform following things customers can search the different home appliances, update about the latest home appliances, can add multiple item into the cart, can create their own account by registering the form, can make purchase by using their PayPal valid account, can update shopping cart, can edit their account, can know details about each home appliances.

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6.0 Conclusion

The concept of Home Appliance introduced mainly on 20th century to save labor and Time. Online Piazza for Home Appliances are a form of electronic commerce which allows consumers directly buy electrical appliances from a seller over the Internet. Our project minimizes the troubles for a customer to walk through a brick and store. And it helps the customers to get up to date about the market price and values. So it can be conclude that it helps to save the time as well as provide the quality product as per customer need and gets up to date about different types of home appliances.

7.0 Limitations and Future work

Our project has certain problems to be addressed. First one is we need to expand the nationwide shipping facility. If customer buy the appliances and he/she want to exchange or return the appliances this is not supported for now. Currently our system contains limited brands and items. Now our system doesn't provide the home delivery of the appliances. Our system is not highly secure.

There are certain other factors which we might not have fulfilled like database privileges, query optimization, home delivery facility, security system, adding more item which will be the future enhancements.

8.0 References

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[4] JavaScript: The Good Parts by Douglas Crocked

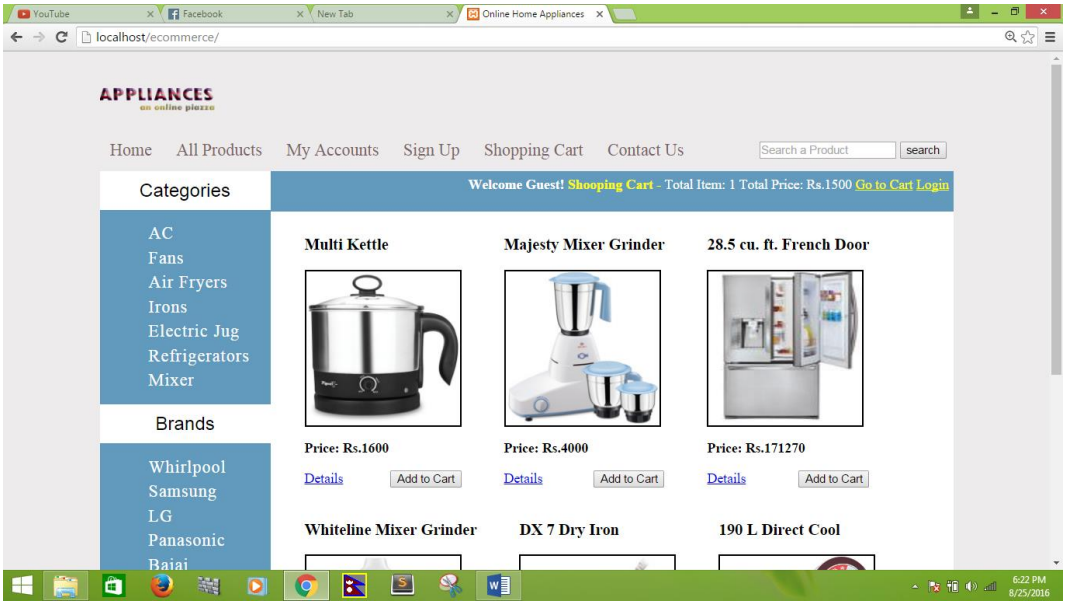
[5] Clow, K. E. and Baack, D. E. (2013) Integrated Advertising, Promotion, and Marketing Communications. Prentice Hall.

[6] Guda, Neeraja (2005), "E-Business-Trends and Issues,"

[7] Halloway Interference between business and customers (2004).

[8] Bakos, J.Y. and Brynjolfsson, E. (2000), "Bundling and Competition on the Internet"

Snapshots


Online Home Appliances
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APPLIANCES
Home
All Products
My Accounts
Sign Up
Shopping Cart
Contact Us
Search a Product
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Categories
AC
Fans
Air Fryers
Irons
Electric Jug
Refrigerators
Mixer
Brands
Whirlpool
Samsung
LG
Panasonic
Welcome Guest! Shooping Cart - Total Item: 1 Total Price: Rs.1500 Go to Cart Login
Multi Kettle
Majesty Mixer Grinder
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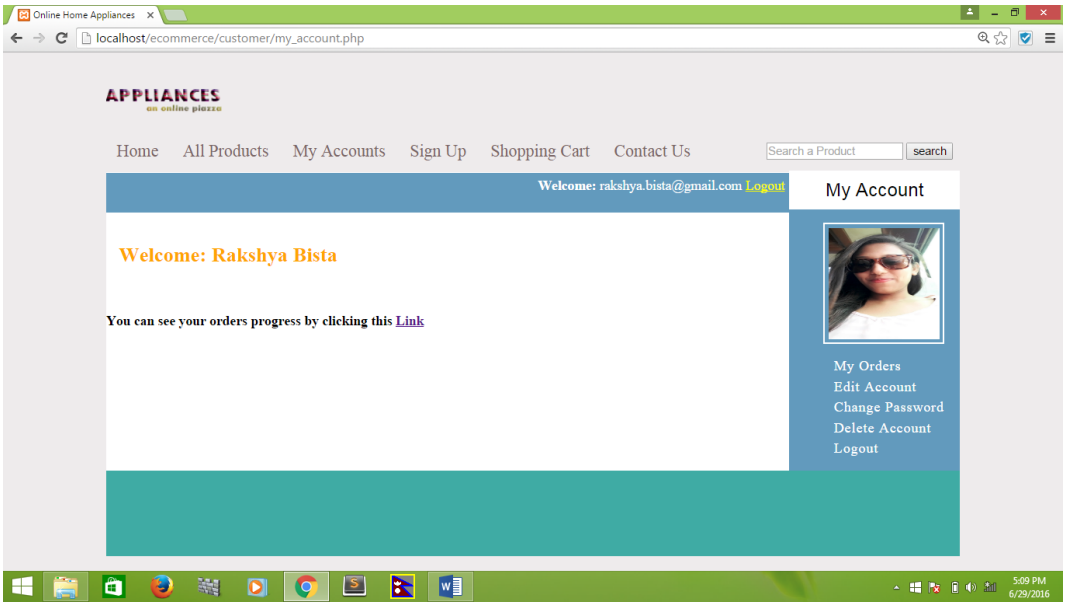
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You can see your orders progress by clicking this Link
My Orders
Edit Account
Change Password
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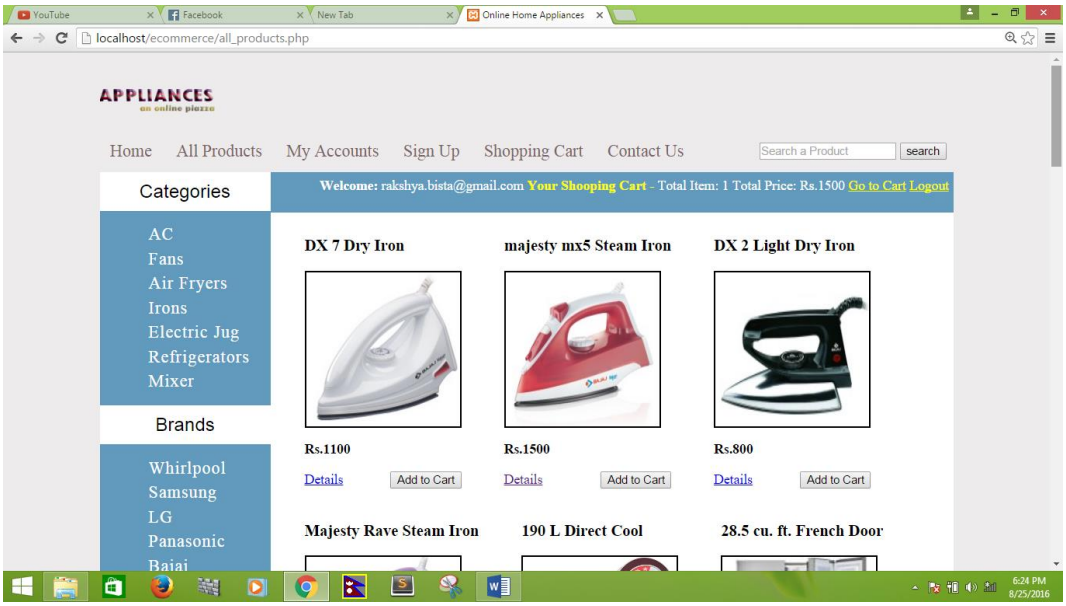
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Electric Jug
Refrigerators
Mixer
Brands
Whirlpool
Samsung
LG
Panasonic
Bajaj
DX 7 Dry Iron
majesty mx5 Steam Iron
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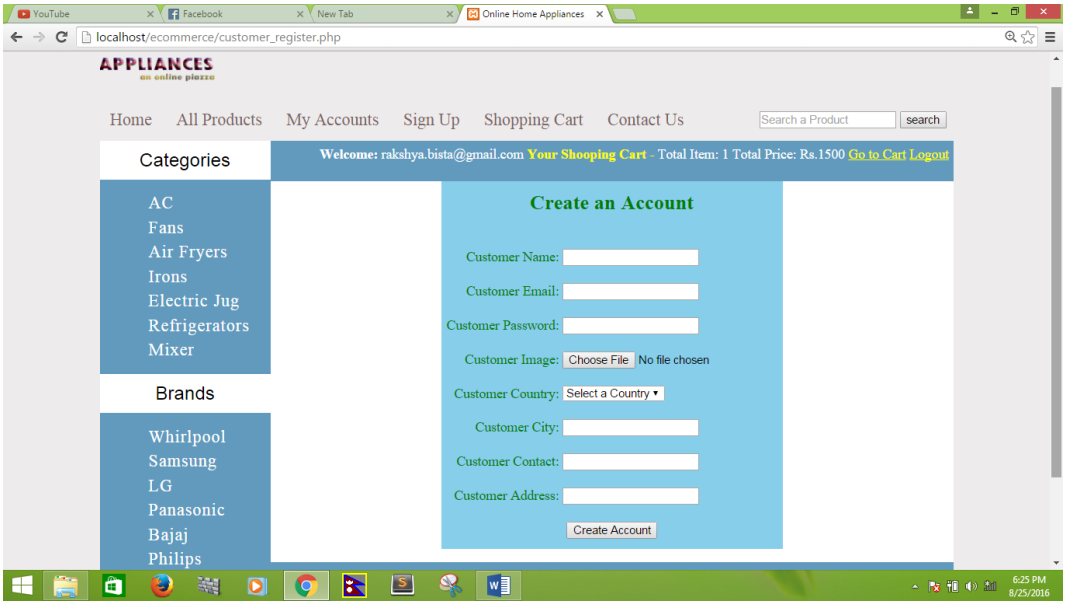
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Whirlpool
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Panasonic
Bajaj
Philips
Create an Account
Customer Name:
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Customer Password:
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Choose File
No file chosen
Customer Country:
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Customer City:
Customer Contact:
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Create Account


localhost/ecommerce/cart.php
APPLIANCES
an online piazza
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Panasonic
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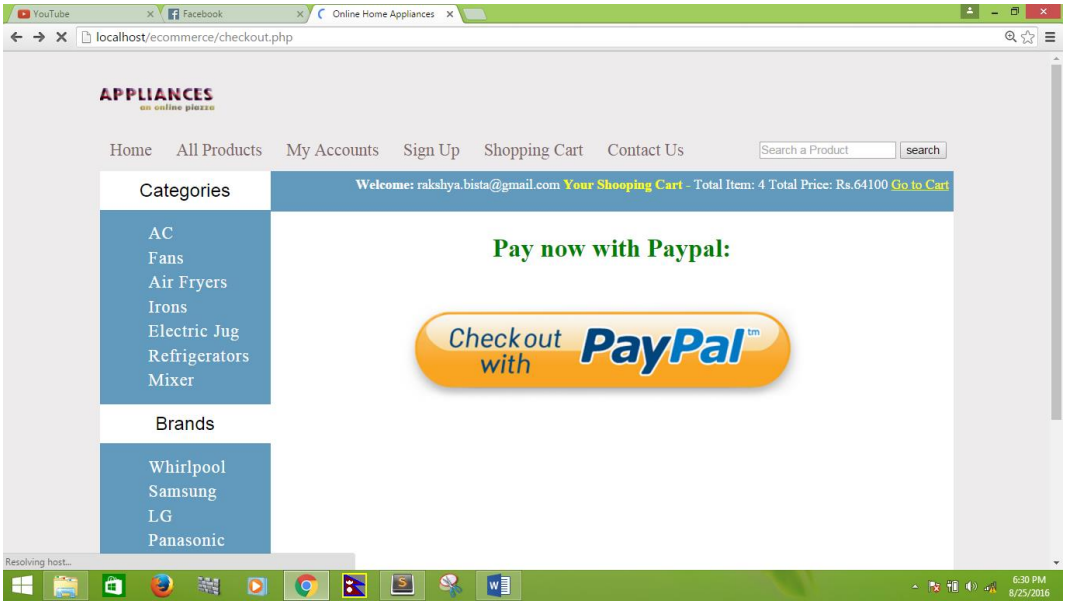
Update cart
Continue Shopping
Verification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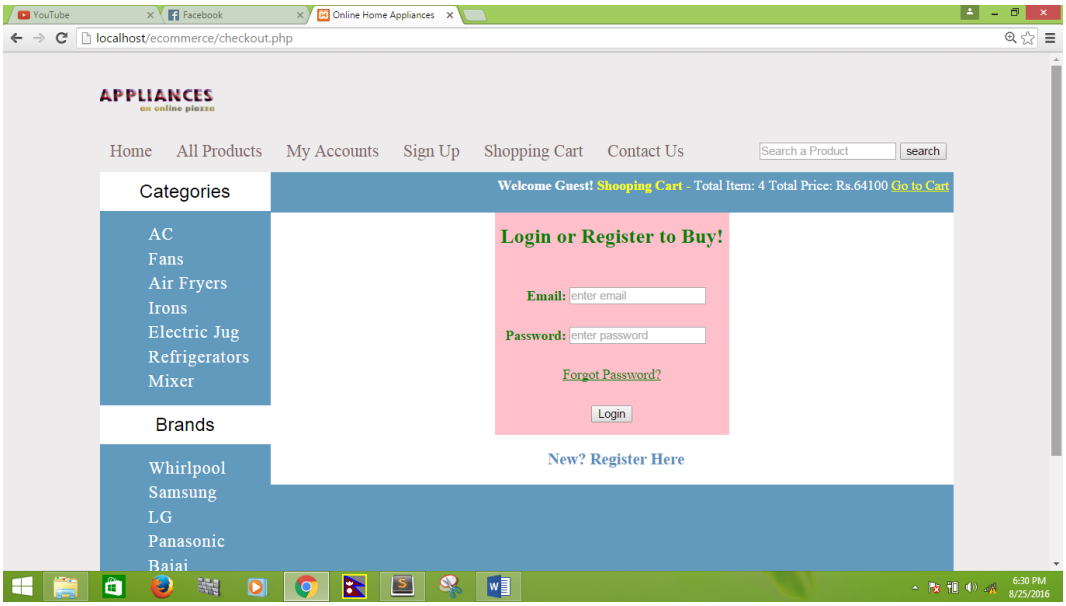
Check out with PayPal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New? Register Here
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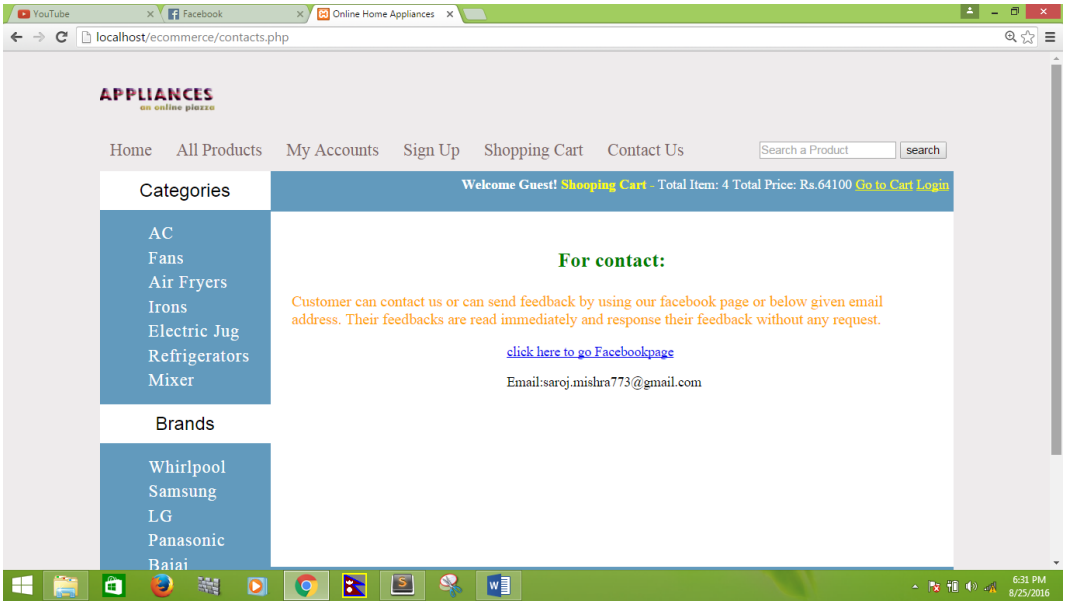
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Panasonic
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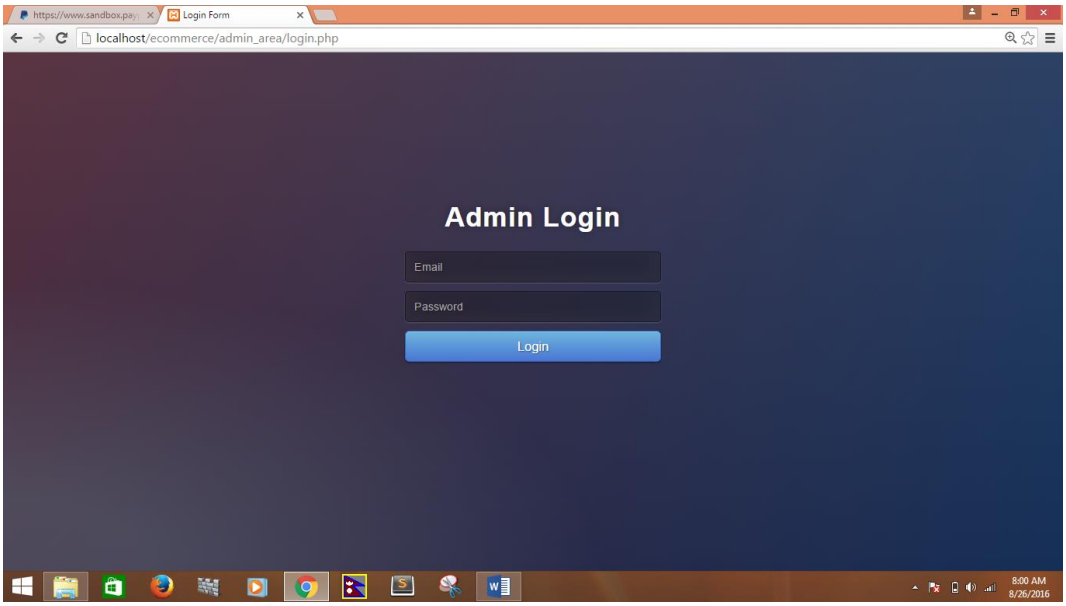
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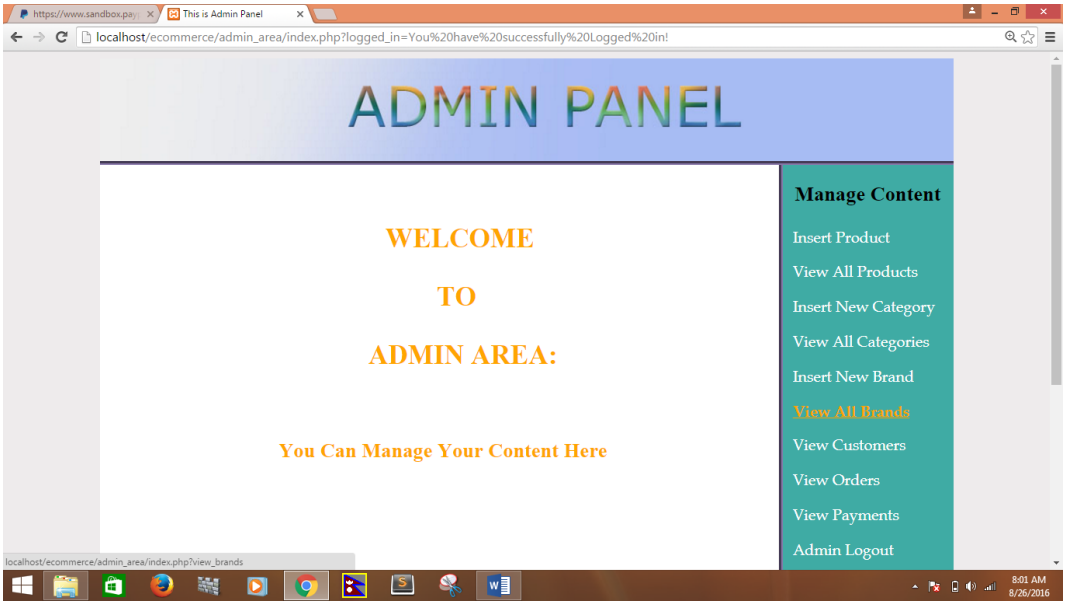
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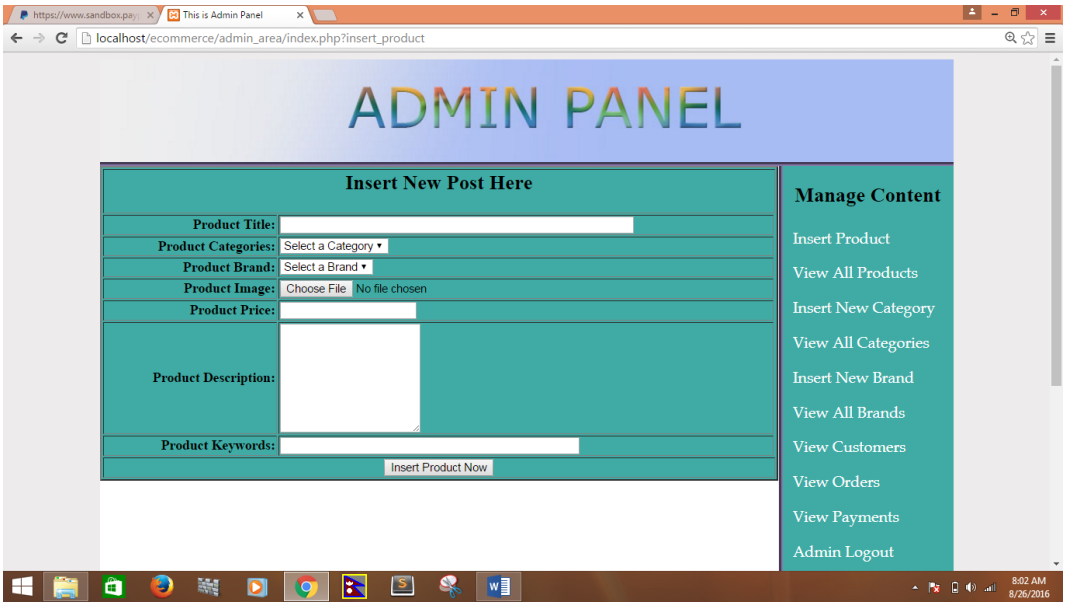
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Product Keywords:
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Manage Content
Insert Product
View All Products
Insert New Category
View All Categories
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View All Categories
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View Orders
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Admin Logout


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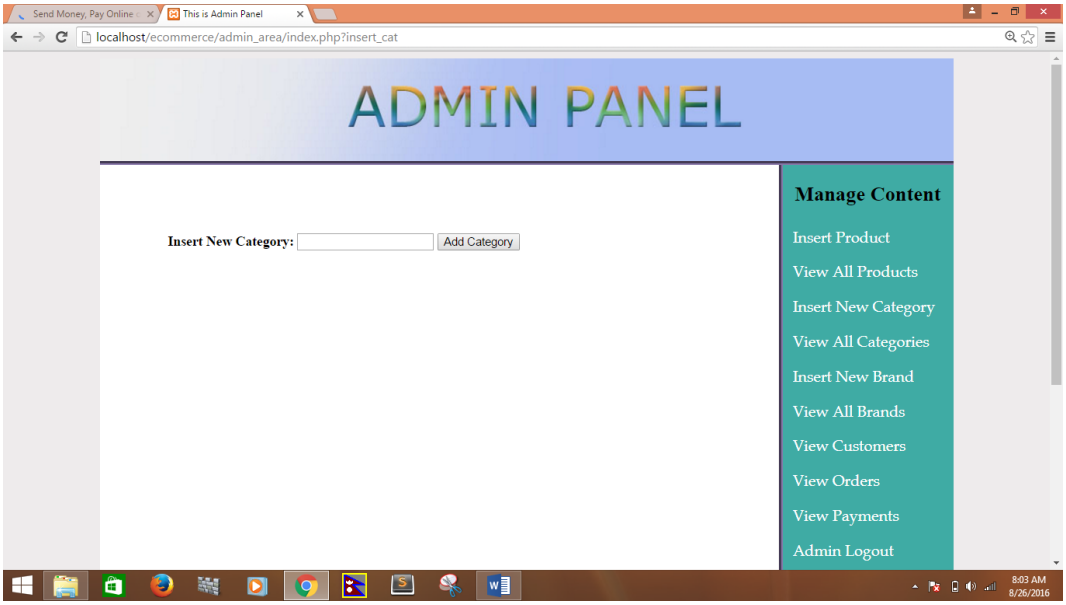
Category Title
Edit
Delete
1 AC Edit Delete
2 Fans Edit Delete
3 Air Fryers Edit Delete
4 Irons Edit Delete
5 Electric Jug Edit Delete
6 Refrigerators Edit Delete
7 Mixer Edit Delete
Manage Content
Insert Product
View All Products
Insert New Category
View All Categories
Insert New Brand
View All Brands
View Customers
View Orders
View Payments
Admin Logout


This is Admin Panel
localhost/ecommerce/admin_area/index.php?insert_cat
ADMIN PANEL
Insert New Category:
Add Category
Manage Content
Insert Product
View All Products
Insert New Category
View All Categories
Insert New Brand
View All Brands
View Customers
View Orders
View Payments
Admin Logout