Title of the Project:

E-Commerce Portal System

Introduction and objective of the project:

1. Project Description

An E-Commerce portal which will allow formal and informal merchants in developing countries to advertise and sell their goods on the internet. This would permit rural communities to make their wares available to the rest of the world via the World Wide Web.

The objective of this project is to create an e-commerce web portal with a content management system which would allow product information to be updated securely using a mobile device. The web portal will have an online interface in the form of an e-commerce website that will allow users to buy goods from the merchants.

This project will be divided into following separate comporents:

- The content management system (CMS)
- The e-commerce website/portal
- The product, merchant and customer database
- The coupans, affliates, discount r anagements
- Reporting of the sales, orders, shoment, etc.
- The online transaction security system
- The data security s stem

1.1 Content Management System (CMS)

The CMS will be responsible for managing the product, merchant and customer database (MySQL). The CMS will also handle any changes that must be made to the database as a result of transactions on the e-commerce website. This information would be processed and the database would be updated coordingly using SQL queries.

1.2 The E-Commerce Website/Portal

The e-commerce website/portal will provide merchants with a medium through which they will be able to sell their merchandise. It will provide online shoppers with an interface through which they will be able to purchase merchandise from formal and informal merchants. This e-commerce website

component will be written in PHP, which is a very popular and versatile e-commerce programming language. The website will provide shoppers with information about the various products that are for sale. The information will include prices, product descriptions, stock availability as well as photographs of the products.

1.3 Product, Merchant and Customer Database

The product, merchant and customer database will store all information about the products that will be sold on the e-commerce portal (prices, product descriptions, photos of products). It will also store merchant information (names, banking details, contact details) as well as customer details (credit card information, shipping address). This database will use the MySat prehitectore and will be manipulated using SQL queries via the content management system.

The e-commerce portal will have the following key features:

- An online shop that will allow online shoppers to buy wares from formal and informal merchants.
- A search engine on the website to allow cus omers o find specific types of merchandise.
- A secure online transaction system that will allow shoppers to purchase goods safely using their credit cards.
- A database of merchancise with photos, product descriptions and stock information. This database will also contain all televant merchant and customer information.
- A data security system that will ensure that all data that is transmitted between the various system

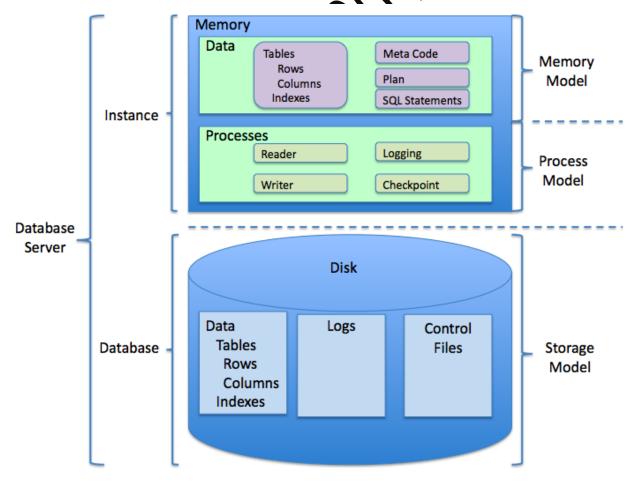
Project Category:

Relational Database Management System (RDBMS): This is an RDBMS based project which is currently using MySQL for all the transaction statements. MySQL is an opensource RDBMS System.

Brief Introduction about RDBSM:

A relational database management system (RDBMS) is a database management system (DBMS) that is based on the relational model as invented by E. F. Codd, of IBM's San Jose Research Laboratory. Many popular databases currently in use are based on the relational database model.

RDBMSs have become a predominant choice for the storage of information in new databases used for financial records, manufacturing and logistical information, personnel data, and much more since the 1980s. Relational databases have often replaced legacy hierarchical databases and nework databases because they are easier to understand and use. However, relational databases have been challenged by object databases, which were introduced in an attempt to address the object-relational impedance mismatch in relational database, and XML databases.



RDBMS Architecture Diagram

Tools/Platform, Hardware and Software Requirement specifications:

For setting this ecommerce portal, it requires certain technical requirements to be met for the store to operate properly. First, a web server must be created to make the ecommerce store publicly available on the web. Domain names and hosting services can easily be purchased for an affordable price. When selecting a hosting service, you should check to see that these server requirements are provided and installed on their web servers:

Software Details for running E-Commerce Portal

- Web Server (preferably Apache)
- PHP (at least 5.2)
- MySQL
- Curl

Required PHP libraries / modules

- Curl
- ZIP
- Zlib
- GD Library
- Mcrypt
- Mbstrings

The above PHP extensions should be available by almost all hosting providers, during the install processa it will check you have them all enabled. You should contact your hosting provider if one is missing.

Process Logic of each module:

Orders Module: When a customer goes through checkout, the information on their order is automatically transferred to the Orders section for you to keep track of. In the administration, you can view all of the orders made on their site, manually add orders, or edit the details of existing orders. The Orders section is located under Sales > Orders. On this page, every order ever made from the store is listed in detail.

Customer Module: Shop owners should know who their customers are and how to manage their information. In the administration, customer information will need to be sored afficiently to remember any transactions made with their account. To access customer information, you can log into the administration panel of the OpenCart store. The Customer management sections are located under Sales > Customers. There are three sections used to manage customer information: Customers, Customer Groups, and IP Blacklist.

Affiliate Module: Ecommerce gives you the opportunity to set up an affiliate program to promote additional traffic to your shop. Affiliates will releive a commission for each time they direct traffic or sales to your site. The commission % combination in the administration under Sales > Affiliate.

Coupons Module: You may create and designate coupons to specific products or product categories under Sales > Coupons, the Coupons page will display a list of all the coupons created in the administration.

Gift vouchers: Gift poteners can be individually sent to customers through their email by other customers in the store front. The customer receiving the gift certificate can use the code provided in the email at the shopping cart to deduct the gift voucher amount from the order total. To manage the Gift Vouchers of the store, go to Sales > Gift Vouchers > Gift Vouchers.

Mail Module: The Mail system in OpenCart lets you send emails to specific customer groups. You can use this feature to send newsletters, information on specials, or to communicate any type of store information to select groups of customers. Customer groups are especially useful in emailing specific

groups of people instead of every customer stored in the administration. For more information on how to create a customer group, see Customer Groups. The Mail page can be accessed from Sales > Mail.

Profiles Module: Profiles are a new, optional feature in OpenCart 1.5.6. They allow you to set up recurring payments for your customers. Profiles are useful if you plan to sell products by subscription, if you are promoting a discount or member's club, or if you are simply breaking up payments into smaller portions. This feature gives the store owner more control over how customers are charged or products or services.

Manufacturers Module: The Manufacturer section is used to categorize protects by inchufacturer. This section can be accessed under Catalog > Manufacturers. The Manufacturer names below came with the install. They can be deleted, and new manufacturer information can be added in its place. The manufacturer information should be created before products are added so the manufacturer category can be selected when adding the product. Saving a product without including the manufacturer isn't advised, because customers can search for products in the store front through their manufacturer page. With the manufacturer missing from the product imprination, the product will not be available on those pages.

Categories Module: In the default theme of the store front, parent categories are listed in the top menu of the home page, and on the loft side of product pages. This navigational feature is used to guide customers to similar product, within the same category. Exposing customers to different products within a category lets the customer compare the similarities and differences between products to make the most informed ourchase. When adding products to the store, you will be asked for a product category to sort them in it is a good idea to establish these categories before adding products, to save yourself the trouble of adding the category name to the products later.

Implementation methodology:

Model View Controller or MVC as it is popularly called, is a software design pattern for developing web applications. A Model View Controller pattern is made up of the following three parts:

- Model The lowest level of the pattern which is responsible for maintaining data.
- View This is responsible for displaying all or a portion of the data to the user.
- Controller Software Code that controls the interactions between the Model and View

MVC is popular as it isolates the application logic from the user interface layer and supports epaletion of concerns. Here the Controller receives all requests for the application and then works with the Model to prepare any data needed by the View. The View then uses the data prepared by the Controller to generate a final presentable response. The MVC abstraction can be graphically represented as follows.

MVC (Model View Controller Ho Model Encapsulates application state · Responds to state queries Exposes application functionality Notifies views of changes State State Change Notification Query Change View Controller View Selection Renders the models Defines application behavior · Requests updates from models · Maps user actions to model updates · Sends user gestures to controller Selects view for response **User Gestures** Allows controller to select view Uses one for each functionality Method Invocations Events

List of reports that are likely to be generated.

Affiliate commission report: The Affiliate Commission Report can be accessed from Reports>Affiliates>Commission in the administration. This report lets you keep track of the affiliates who are making a commission for referring customers to the store.

- The Affiliate Commission Report displays the following information:
- Affiliate Name: The name of the individual/company acting as an affiliate for the stop
- E-mail: The e-mail for contacting the affiliate.
- Status: Shows if the affiliate is enabled or disabled.
- Commission: The commission amount made from a customer purc
- No. Orders: The number of orders obtained through this affiliate,
- Total: The total amount that this affiliate has earned through the affiliate program.

Customer reports: The Customer Reports section can be acressed. Inder Reports>Customers. These reports display specific information to track orders mids, reward points, and store credit for each customer using the store.

Order reports: The Order Report section accessed under Reports>Customers>Orders.

The following information will be displayed about customer orders:

- Customer Name
- E-Mail
- Customer Group: The Justomer group the customer is categorized in.
- Status: Shows if the customer is currently allowed to login to their store account.
- No Orders. The total number of orders made by this customer.
 - 10. Products: The total number of products purchased by this customer.

Total. The total amount purchased from this customer. Customers are arranged on the list from the highest amount to the lowest.

Reward points report : The Order Report section can be accessed under Reports>Customers>Reward Points.

The following information will be displayed about customer reward point usage:

- Customer Name
- E-Mail
- Customer Group: The customer group the customer is categorized in.
- Status: Shows if the customer is currently allowed to login to their store account.
- Reward Points: The amount of reward points obtained by this customer. Reward points can be
 acquired by a customer by purchasing a product with reward points designated to it under its
 Data tab under Catalog>Products. See Reward Points for more information.
- No. Orders: The total number of orders made by this customer.
- Total: The total amount purchased from this customer.

Customer credit report: The Order Report section can be accessed under Reports>Customers>Credit.

The following information will be displayed about customer store credit:

- Customer Name
- E-Mail
- Customer Group: The customer group the customer is categorized in.
- Status: Shows if the customer is carrently allowed to login to their store account.
- Total: The total amount purchased from this customer.

Products viewed report: The Products Viewed Report gives you an idea of what products are being viewed the most, or the least to the store front. You can access this section under Reports > Products > Viewed in the administration. Ide. The report will position the top viewed product first. Along with the product name and model the report will display the number of customers who viewed that product in the store floats, and the percentage of views for this specific product out of all the views for products on the site. Clicking "Reset" will clear the information below and reset the report to only collect information from that moment on.

Sales reports: The reports under Sales Reports can be accessed from Reports Sales. Orders, taxes, shipping, returns, and coupon sales information can be tracked in list form.

Tax Report : The Tax Report can be accessed through Reports > Sales > Tax. The Tax report displays which type of tax is being paid the most by customers in the store front. Tax information is displayed in

either daily, weekly, monthly, or yearly increments depending on which option you select in the "Group By" drop box.

The Tax Report displays the following information:

- Date Start: The date of the first day of the week tracked (if set to week in Group By).
- Date End: The date of the last day of the week tracked (if set to week in Group By).
- Tax Title: The title of the tax type used.
- No. of Orders: The number of orders made through the store between the date star and los
- Total: The total amount of money paid for taxes by customers between the date to it and end.

Shipping report : The Shipping Report can be accessed through Reports > Sales > Shipping. The Shipping report displays which shipping method is being used the most by customers in the store front. Shipping information is displayed in either daily, weekly, monthly, or yearly the ments depending on which option you select in the "Group By" drop box.

The Shipping Report displays the following information:

- Date Start: The date of the first day of the year tracked (if set to week in Group By).
- Date End: The date of the last day of the week tracked (if set to week in Group By).
- Shipping Title: The shipping method used. The shipping title with the highest total will be displayed at the top. The lowest total will be at the bottom.
- No. of Orders: The number of orders made through the store between the date start and end.
- Total: The total amount of loney paid for shipping between the date start and end.

Returns report : The Returns Report can be accessed through Reports>Sales>Returns. The returns report shows how many returns were requested within a given time frame. The returns information is displayed in either daily, weekly, monthly, or yearly increments depending on which option you select in the 'Group By' drop box.

- Returns Report displays the following information:
- Date Start: The date of the first day of the week tracked (if set to week in Group By)
- Date End: The date of the last day of the week tracked (if set to week in Group By)
- No. Returns: The number of return requests submitted or created between the date start and date end.

Implementation of security mechanisms at various levels

Online Transaction Security System: The online transaction security system will provide a safe and secure method for online shoppers to make credit card purchases on the e-commerce website. When a credit purchase is made using the website, the credit card information will be encrypted using Secure Socket Layer (SSL) and transmitted to the bank for processing. This security system will also provide access control for website visitors, which will allow only registered users to make purchases. The registered customers account information will be stored in the customer information database mentioned earlier.

Data Security System: The data security system will allow data to be security transmitted between the various components of the e-commerce portal. This includes transmission of product, merchant and customer information from the content management system to the vel site, and also the transmission of data from the website to the content management system.

Folder Security using .htaccess: The .htaccess (short for â€0:H) per ext Accessâ€②) file in your site's directory is a configuration file you can use to override the settings on your web server. With the right commands, you can enable/disable extra functionality indirectors to protect your site from spammers, hackers and other threats.

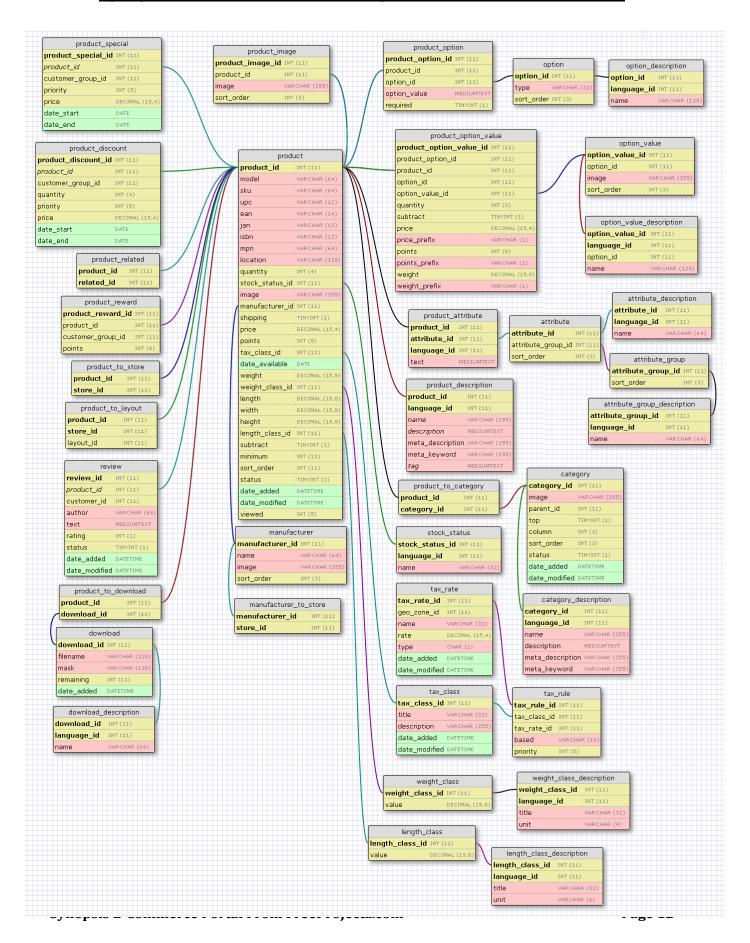
Prevent Directory Browsing: Protecting directories from being listed is, at best, security by obscurity. That is, its hiding your stuff from New preventing meddling visitors from browsing through your directories. Really, its the web equivalent of hiding your cash under your mattress. Still, its good practice to prevent directory browsing. We ig with implementing other measures to secure your site.

To disable browsing of your anectories, add this to your .htaccess file:

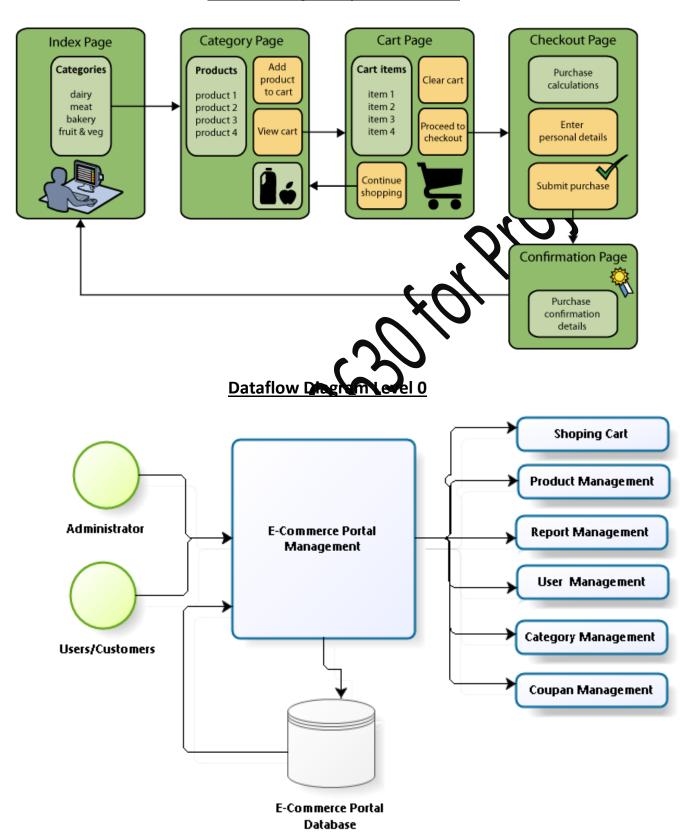
Options Alk—Indexes

Restrict Access to Your Admin Area: A simple way to restrict access if your internet has a fixed IP address and you always access your site form the same location is by creating a new .htaccess file with the following snippet:

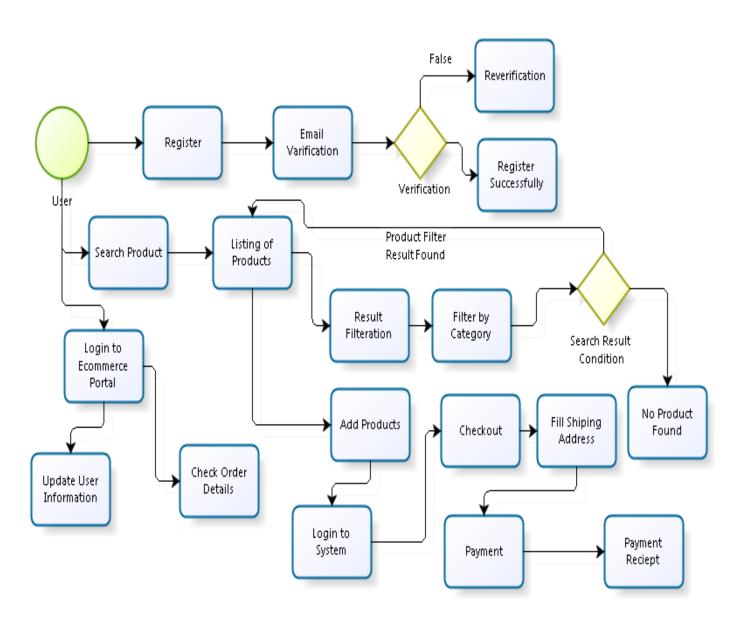
order deny,allow allow from 192.168.5.1 deny from all



E-Commerce high level process Workflow

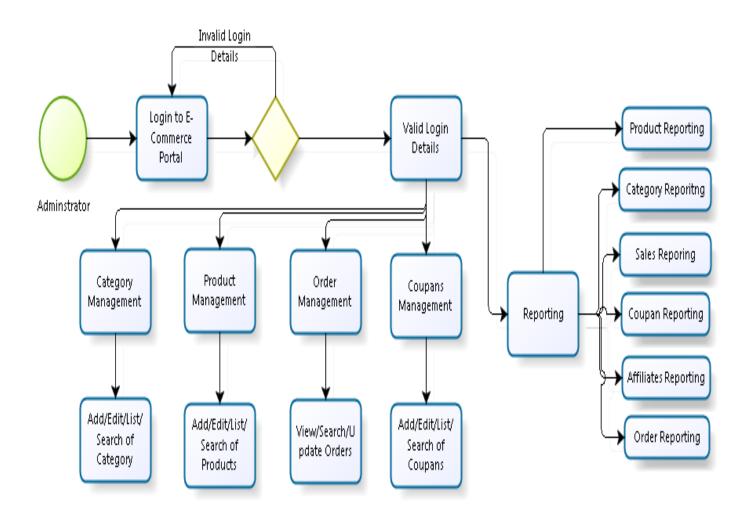


Dataflow Diagram Level 1





Dataflow Diagram Level 2





<u>Database Structure and Table Details</u> <u>Category Table</u>

# Name	Туре	Collation	Attributes	Null	Default	Extra
1 category id	int(11)			No	None	AUTO_INCREMENT
2 image	varchar(255)	utf8_general_ci		Yes	NULL	
3 parent_id	int(11)			No	0	
4 top	tinyint(1)			No	None	
5 column	int(3)			No	None	
6 sort_order	int(3)			No	0	
7 status	tinyint(1)			No	None	
8 date_added	datetime			No	None	
9 date modified	datetime			No	None	

Coupon Table

#	Name	Туре	Collation	Attributes	Null	Default	Extra	1
1	coupon id	int(11)			No	None	AUTO_INCREMENT	
2	name	varchar(128)	utf8_general_ci		No	None		c
3	code	varchar(10)	utf8_general_ci		No	None		í
4	type	char(1)	utf8_general_ci		No	None		
5	discount	decimal(15,4)			No	None		
6	logged	tinyint(1)			No	None		
7	shipping	tinyint(1)			No	None		
8	total	decimal(15,4)			No	None		
9	date_start	date			No	0000-00-00		
10	date_end	date			No	0000-00-00		6
11	uses_total	int(11)			No	None		
12	uses_customer	varchar(11)	utf8_general_ci		No	None		ě
13	status	tinyint(1)			No	None		
14	date_added	datetime			No	None		ě

Manufacturer Table

# Name	Туре	Collation	Attributes	Null	Default	Extra
1 manufacturer id	int(11)			No	None	AUTO_INCREMENT
2 name	varchar(64)	utf8_general_ci		No	None	
3 image	varchar(255)	utf8_general_ci		Yes	NULL	
4 sort_order	int(3)			No	None	

Customer Table Description

#	Name	Туре	Collation	Attributes	Null	Default	Extra
1	customer id	int(11)			No	None	AUTO_INCREMENT
2	customer_group_id	int(11)			No	None	
3	store_id	int(11)			No	0	
4	firstname	varchar(32)	utf8_general_ci		No	None	
5	lastname	varchar(32)	utf8_general_ci		No	None	
6	email	varchar(96)	utf8_general_ci		No	None	
7	telephone	varchar(32)	utf8_general_ci		No	None	
8	fax	varchar(32)	utf8_general_ci		No	None	
9	password	varchar(40)	utf8_general_ci		No	None	
10	salt	varchar(9)	utf8_general_ci		No	None	
11	cart	text	utf8_general_ci		Yes	NULL	
12	wishlist	text	utf8_general_ci		Yes	NULL	
13	newsletter	tinyint(1)			No	0	
14	address_id	int(11)			No	0	
15	custom_field	text	utf8_general_ci		No	None	
16	ip	varchar(40)	utf8_general_ci		No	None	
17	status	tinyint(1)			No	None	
18	approved	tinyint(1)			No	None	
19	safe	tinyint(1)			No	None	
20	token	varchar(255)	utf8_general_ci		No	None	
21	date_added	datetime			No	None	

Order History Table Description

# Name	Туре	Collation	Attributes	Null	Default	Extra
1 order history id	int(11)			No	None	AUTO_INCREMENT
2 order_id	int(11)			No	None	
3 order_status_id	int(5)			No	None	
4 notify	tinyint(1)			No	0	
5 comment	text	utf8_general_ci		No	None	
6 date_added	datetime			No	None	

#	Name	Туре	Collation	Attributes	Null	Default	Extra
1	order product id	int(11)			No	None	AUTO_INCREMENT
2	order_id	int(11)			No	None	
3	product_id	int(11)			No	None	
4	name	varchar(255)	utf8_general_ci		No	None	
5	model	varchar(64)	utf8_general_ci		No	None	
6	quantity	int(4)			No	None	
7	price	decimal(15,4)			No	0.0000	
8	total	decimal(15,4)			No	0.0000	
9	tax	decimal(15,4)			No	0.0000	
10	reward	int(8)			No	None	

Product Discount Table Description

# Name	Туре	Collation	Attributes	Null	Default	Extra
1 product discount id	int(11)			No	None	AUTO_INCREMENT
2 product_id	int(11)			No	None	
3 customer_group_id	int(11)			No	None	
4 quantity	int(4)			No	0	
5 priority	int(5)			No	1	
6 price	decimal(15,4)			No	0.0000	
7 date_start	date			No	0000-00-00	
8 date_end	date			No	0000-00-00	

Product Image Table Description

#	Name	Туре	Collation	Attributes	Null	Default	Extra
1	product image id	int(11)			No	None	AUTO_INCREMENT
2	product_id	int(11)			No	None	
3	image	varchar(255)	utf8_general_ci		Yes	NULL	
4	sort_order	int(3)			No	0	

Order Table Description

# Name	Туре	Collation	Attributes	Null	Default	Extra
1 order id	int(11)			No	None	AUTO_INCREMENT
2 invoice_no	int(11)			No	0	
3 invoice_prefix	varchar(26)	utf8_general_ci		No	None	
4 store_id	int(11)			No	0	
5 store_name	varchar(64)	utf8_general_ci		No	None	
6 store_url	varchar(255)	utf8_general_ci		No	None	
7 customer_id	int(11)			No	0	
8 customer_group_id	int(11)			No	0	
9 firstname	varchar(32)	utf8_general_ci		No	None	
10 lastname	varchar(32)	utf8_general_ci		No	None	
11 email	varchar(96)	utf8_general_ci		No	None	
12 telephone	varchar(32)	utf8_general_ci		No	None	
13 fax	varchar(32)	utf8_general_ci		No	None	
14 custom_field	text	utf8_general_ci		No	None	
15 payment_firstname	varchar(32)	utf8_general_ci		No	None	
16 payment_lastname	varchar(32)	utf8_general_ci		No	None	_
17 payment_company	varchar(40)	utf8_(Unicode	multilingu	al), ca	se-insensitiv	/e
18 payment_address_1	varchar(128)	utf8_general_ci		No	None	
19 payment_address_2	varchar(128)	utf8_general_ci		No	None	
20 payment_city	varchar(128)	utf8_general_ci		No	None	
21 payment_postcode	varchar(10)	utf8_general_ci		No	None	
22 payment_country	varchar(128)	utf8_general_ci		No	None	
23 payment_country_id	int(11)			No	None	
24 payment_zone	varchar(128)	utf8_general_ci		No	None	
25 payment_zone_id	int(11)			No	None	
$26 \hspace{0.1cm} \textbf{payment_address_format}$	text	utf8_general_ci		No	None	
27 payment_custom_field	text	utf8_general_ci		No	None	
28 payment_method	varchar(128)	utf8_general_ci		No	None	
29 payment_code	varchar(128)	utf8_general_ci		No	None	

91.

Store Table Description

# Name	Туре	Collation	Attributes	Null	Default	Extra
1 store id	int(11)			No	None	AUTO_INCREMENT
2 name	varchar(64)	utf8_general_ci		No	None	
3 url	varchar(255)	utf8_general_ci		No	None	
4 ssl	varchar(255)	utf8_general_ci		No	None	

Product *Table* **Description**

#	Name	Туре	Collation	Attributes	Null	Default	Extra
1	product id	int(11)			No	None	AUTO_INCREMENT
2	model	varchar(64)	utf8_general_ci		No	None	
3	sku	varchar(64)	utf8_general_ci		No	None	
4	ирс	varchar(12)	utf8_general_ci		No	None	
5	ean	varchar(14)	utf8_general_ci		No	None	
6	jan	varchar(13)	utf8_general_ci		No	None	
7	isbn	varchar(17)	utf8_general_ci		No	None	
8	mpn	varchar(64)	utf8_general_ci		No	None	
9	location	varchar(128)	utf8_general_ci		No	None	
10	quantity	int(4)			No	0	
11	stock_status_id	int(11)			No	None	
12	image	varchar(255)	utf8_general_ci		Yes	NULL	
13	manufacturer_id	int(11)			No	None	
14	shipping	tinyint(1)			No	1	
15	price	decimal(15,4)			No	0.0000	
16	points	int(8)			No	0	
17	tax_class_id	int(11)			No	None	
18	date_available	date			No	0000-00-00	
19	weight	decimal(15,8)			No	0.00000000	
20	weight_class_id	int(11)			No	0	
21	length	decimal(15,8)			No	0.00000000	
22	width	decimal(15,8)			No	0.00000000	
23	height	decimal(15,8)			No	0.00000000	
24	length_class_id	int(11)			No	0	
25	subtract	tinyint(1)			No	1	
26	minimum	int(11)			No	1	
27	sort_order	int(11)			No	0	
28	status	tinyint(1)			No	0	
29	viewed	int(5)			No	0	
	date_added	datetime			No	None	
31	date_modified	datetime			No	None	

Voucher *Table* **Description**

# Name	Туре	Collation	Attributes	Null	Default	Extra
1 voucher id	int(11)			No	None	AUTO_INCREMENT
2 order_id	int(11)			No	None	
3 code	varchar(10)	utf8_general_ci		No	None	
4 from_name	varchar(64)	utf8_general_ci		No	None	
5 from_email	varchar(96)	utf8_general_ci		No	None	
6 to_name	varchar(64)	utf8_general_ci		No	None	
7 to_email	varchar(96)	utf8_general_ci		No	None	
8 voucher_theme_	id int(11)			No	None	
9 message	text	utf8_general_ci		No	None	
10 amount	decimal(15,4))		No	None	
11 status	tinyint(1)			No	None	
12 date_added	datetime			No	None	



#	Name	Туре	Collation	Attributes	Null	Default	Extra
1	user id	int(11)			No	None	AUTO_INCREMENT
2	user_group_id	int(11)			No	None	
3	username	varchar(20)	utf8_general_ci		No	None	
4	password	varchar(40)	utf8_general_ci		No	None	
5	salt	varchar(9)	utf8_general_ci		No	None	
6	firstname	varchar(32)	utf8_general_ci		No	None	
7	lastname	varchar(32)	utf8_general_ci		No	None	
8	email	varchar(96)	utf8_general_ci		No	None	
9	image	varchar(255)	utf8_general_ci		No	None	
10	code	varchar(40)	utf8_general_ci		No	None	
11	ip	varchar(40)	utf8_general_ci		No	None	
12	status	tinyint(1)			No	None	
13	date_added	datetime			No	None	

Return Table Description

#	Name	Туре	Collation	Attributes	Null	Default	Extra
1	return id	int(11)			No	None	AUTO_INCREMENT
2	order_id	int(11)			No	None	
3	product_id	int(11)			No	None	
4	customer_id	int(11)			No	None	
5	firstname	varchar(32)	utf8_general_ci		No	None	
6	lastname	varchar(32)	utf8_general_ci		No	None	
7	email	varchar(96)	utf8_general_ci		No	None	
8	telephone	varchar(32)	utf8_general_ci		No	None	
9	product	varchar(255)	utf8_general_ci		No	None	
10	model	varchar(64)	utf8_general_ci		No	None	
11	quantity	int(4)			No	None	
12	opened	tinyint(1)			No	None	
13	return_reason_id	int(11)			No	None	
14	return_action_id	int(11)			No	None	
15	return_status_id	int(11)			No	None	
16	comment	text	utf8_general_ci		Yes	NULL	
17	date_ordered	date			No	0000-00-00	
18	date_added	datetime			No	None	
19	date_modified	datetime			No	None	

ax Rate Table Description

	_					
# Name	Туре	Collation	Attributes	Null	Default	Extra
1 tax rate id	int(11)			No	None	AUTO_INCREMENT
2 geo_zone_id	int(11)			No	0	
3 name	varchar(32)	utf8_general_ci		No	None	
4 rate	decimal(15,4)			No	0.0000	
5 type	char(1)	utf8_general_ci		No	None	
6 date_added	datetime			No	None	
7 date_modified	datetime			No	None	

Future scope and further enhancement of the project:

Today, the market place is flooded with several e-commerce options for shoppers to choose from. A variety of innovative products and services are being offered spoiling customers for choice. Online shopping is no more a privilege enjoyed by your friends and family living in the US or UK. Today, it is a reality in India. In the last couple of years, the growth of e-commerce industry in India has been phenomenal as more shoppers have started discovering the benefits of using this platform. There is enough scope for online businesses in the future if they understand the Indian shoppers psyche and cater to their needs.

Bibliography:

Articles on Ecommerce http://www.epaynews.com/statistics/

Articles on Ecommerce http://www.merchantpicks.com

Articles on Ecommerce http://www.google.com

Articles on Ecommerce http://www.emarketer.com

Articles on Ecommerce http://www.internet-story.com

Articles on Ecommerce http://www.networld.com/horing/Ecommerce.cfm

Articles on Ecommerce http://www.exploit-lo.grg/issu-3/E-Commerce/

Articles on Ecommerce http://www.E-Commercetin es.com/perl/story/18403.html

Articles on Ecommerce http://www.e-global.es/lisco_view.pdf

Articles on Ecommerce http://www.tm.com