



## **School of Computer Science and Engineering**

### **DECLARATION**

I hereby declare that the project entitled **“Online Electronic Applications Store Database”** submitted by me to the School of Computer Science and Engineering, VIT University, Vellore-14 in partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Computer Science and Engineering** is a record of bonafide work carried out by me/us under the supervision of **Raman than L, Assistant Professor**. I further declare that the work reported in this project has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma of this institute or of any other institute or university.

Signature

**Arpit Khurana 15BCE0353**



## School of Computer Science and Engineering

### CERTIFICATE

The project report entitled “Online Electronic Applications Store Database” is prepared and submitted by **ARPIT KHURANA (15BCE0353)**. It has been found satisfactory in terms of scope, quality and presentation as partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology in Computer Science and Engineering** in VIT University, India.

**Guide**  
(Name & Signature)

**Internal Examiner**  
(Name & Signature)

**External Examiner**  
(Name & Signature)

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I deeply express our sincere thanks to our Head of Department and Dean for encouraging and allowing us to present the project on the topic “Online electronic store database” For database management system course.

I take this opportunity to thank all our lecturers who have directly or indirectly helped our project. We pay our respects and love to our parents and all other family members and friends for their love and encouragement throughout our career. Last but not the least we express our thanks to our friends for their cooperation and support.

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## ABSTRACT

E-commerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web sites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace.

The objective of this project is to develop a general purpose e-commerce store database where electronic products like mobile, computers can be bought.

An online store is a virtual store on the Internet where customers can browse the catalog and select products of interest. The selected items may be collected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order. At that time, more information will be needed to complete the transaction. Usually, the customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment information such as credit card number. An e-mail notification is sent to the customer as soon as the order is placed.

Online Electronic Application Store Database will do following processes

- a. Any member can register and view available products
- b. Only registered member can purchase multiple products regardless of quantity
- c. There are three roles available: Visitor, User and Admin.
- d. Visitor can view available products
- e. User can view and purchase products.
- f. An Admin has some extra privilege including all privilege of visitor and user. Admin can add products, edit product information and add/remove product.
- g. Admin can add user, edit user information and can remove user.
- h. The customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment information such as credit card number.
- i. The bill will be given to the customer as soon as the order is placed.



## **1 . Introduction**

### **1.1 Theoretical Background**

Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the Internet using a web browser. Consumers find a product of interest by visiting the website of the retailer directly or by searching among alternative vendors using a shopping search engine, which displays the same product's availability and pricing at different e-retailers. As of 2016, customers can shop online using a range of different computers and devices, including desktop computers, laptops, tablet computers and smartphones.

### **1.2 Motivation**

Motivation behind this project to form an application which can work as an interface between application database server and customer for easy shopping

### **1.3 Aim of the proposed Work**

The aim of this project is to develop a general purpose e-commerce store database where electronic products like mobile, computers can be bought.

An online store is a virtual store on the Internet where customers can browse the catalog and select products of interest. The selected items may be collected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order. At that time, more information will be needed to complete the transaction. Usually, the customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment information such as credit card number. An e-mail notification is sent to the customer as soon as the order is placed.

### **1.4 Objective(s) of the proposed work**

Online Electronic Application Store Database will do following processes

- j. Any member can register and view available products

- k. Only registered member can purchase multiple products regardless of quantity
- l. There are three roles available: Visitor, User and Admin.
- m. Visitor can view available products
- n. User can view and purchase products.
- o. An Admin has some extra privilege including all privilege of visitor and user. Admin can add products, edit product information and add/remove product.
- p. Admin can add user, edit user information and can remove user.
- q. The customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment information such as credit card number.
- r. The bill will be given to the customer as soon as the order is placed.

## 1.5 Report Organization

This report contains literature Survey of the Existing Models/Work and Summary/Gaps identified in the Survey. Then it contains overview of the Proposed System which contains introduction of the work I am going to do in our project, After that it contains system requirements required for the project. Then the results and discussion and final the reports ends with conclusion, limitations and scope for future work.

## 2 . Literature Survey

### 2.1 Survey of the Existing Models/Work

Factor Type	Individual Type	Surveyed studies	Major Finding
Demographics	Gender	[Alek and Settle 2002; Brown et al. 2003; Donahue and Garcia 1999; Korgaonkar and Wolin 1999; Levy 1999; Li et al. 1999; ; Rodgers and Harris 2003; Slyke	Male consumers make more online purchases and spend more money online than females; they are equally or more likely to shop online in the future, and are equally or more favorable of online shopping. Women have

		et al. 2002; Stafford et al. 2004]	a higher-level of web apprehensiveness and are more skeptical of e-business than men.
Demographics	Age	[Bellman et al. 1999; Bhatnagar and Ghose 2004b; Bhatnagar et al. 2000; Donthu and Garcia 1999; Joines et al. 2003; Korgaonkar and Wolin 1999; Li et al. 1999; Rohm and Swaminathan 2004; Stafford et al. 2004]	There are mixed findings on the relationship between age and online shopping intention.
Demographics	Income	[Bagchi and Mahmood 2004; Donthu and Garcia 1999; Korgaonkar and Wolin 1999; Li et al. 1999; Susskind 2004]	Income is positively related to online shopping tendency.
Demographics	Education	[Bagchi and Mahmood 2004; Bellman et al. 1999; Donthu and Garcia 1999; Li et al. 1999; Liao and Cheung 2001; Susskind 2004]	Education level produces mixed effects ranging from no effect to a positive effect on online shopping.
Demographics	Culture	[Chau et al. 2002; O'Keefe et al. 2000; Park and Jun 2003; Park et al. 2004; Shiu and Dawson 2002; Stafford et al. 2004]	Consumers from an individualistic culture are more likely to use the Internet for e-commerce than those from a collectivistic culture
Internet experience	WWW apprehensiveness (WA)	[Susskind 2004]	General WA is moderately related to WA relative to purchasing, and is negatively related to the amount of time spent online.
Internet experience	Frequency of Internet usage	[Bhatnagar and Ghose 2004b; Bhatnagar et al. 2000; Cho 2004; Citrin et al. 2000;	There are mixed results for the effects of Internet usage on online shopping intention. Internet usage is

		Jarvenpaa and Todd 1997; Jarvenpaa and Tractinsky 1999; Liao and Cheung 2001; Nysveen and Pedersen 2004; Park 2002]	negatively related to perceived product risk.
Internet experience	Comfort with the Internet	[Mauldin and Arunachalam 2002]	Comfort level has a positive relationship with online shopping tendency.
Normative beliefs		[Foucault and Scheufele 2002; Limayem et al. 2000]	The influence of friends, family, and media recommendations on the tendency for online shopping is mixed
Shopping orientation		[Donthu and Garcia 1999; Korgaonkar and Wolin 1999; Li et al. 1999; Swaminathan et al. 1999]	Online consumers tend to be convenience-oriented, and recreational and economic shoppers appear to become dominant recently. Consumers' proclivity to purchase products online is not found to vary across different online shopping orientations
Shopping motivation		[Childers et al. 2001; Joines et al. 2003; Johnson et al. 2004; Novak et al. 2000; Solomon 1999; Wolfinbarger and Gilly 2001]	Motivational factors play a key role in determining time spent on product searching and online shopping. Experiential (hedonic) shoppers always find more enjoyment in interactive environments than in pure text environments.
Personal traits	Innovativeness	[Citrin et al. 2000; Donthu and Garcia 1999; Goldsmith 2001; Goldsmith 2002; Limayem et al. 2000; Sin and Tse 2002]	Personal innovativeness has both direct and indirect effects on online shopping intention, the indirect effects being mediated by attitude.
Online experience	Online experience	[Huang 2003; Lynch and Beck 2001; Wolfinbarger	Positive emotions have positive influence on online shopping

		and Gilly 2001; Xia 2002]	intention in some countries
Online experience	Flow	[Hoffman and Novak 1996; Mathwick and Rigdon 2004; Novak et al. 2000]	There are mixed results on the influences of flow on positive subjective experience and greater exploratory behavior
Psychological perception	Benefit perception	[Chen et al. 2002; Limayem et al. 2000; Pavlou 2003]	Perceived usefulness is positively related to the intention to purchase online.
Psychological perception	WWW purchasing apprehensiveness	[Susskind 2004]	WWW purchasing apprehensiveness is negatively related to the amount of money
Online Shopping experience	Frequency of online purchases	[Brown et al. 2003; Cho 2004; Foucault and Scheufele 2002; Moe and Pader 2004; Park and Jun 2003; Yang and Lester 2004]	Frequency of purchases is positively related to online shopping tendency and negatively related to the likelihood to abort an online transaction.
Online Shopping experience	Satisfactory levels about past online transactions	[Cho 2004; Devaraj et al. 2002; Foucault and Scheufele 2002; Koivumi 2001; Pires et al. 2004]	Previous satisfaction has a positive relationship with online shopping tendency.

## 2.2 Summary/Gaps identified in the Survey

Electronic Commerce (e-commerce) applications support the interaction between different parties participating in a commerce transaction via the network, as well as the management of the data involved in the process.

The increasing importance of e-commerce is apparent in the study conducted by researchers at the GVU (Graphics, Visualization, and Usability) Center at the Georgia Institute of Technology. In their summary of the findings from the eighth survey, the researchers report that “e-commerce is taking off both in terms of the number of users shopping as well as the total amount people are spending via Internet based transactions”.

Over three quarters of the 10,000 respondents report having purchased items online. The most cited reason for using the web for personal shopping was convenience (65%), followed by availability of vendor information (60%), no pressure from sales person (55%) and saving time (53%).

Although the issue of security remains the primary reason why more people do not purchase items online, the GVA survey also indicates that faith in the security of e-commerce is increasing. As more people gain confidence in current encryption technologies, more and more users can be expected to frequently purchase items

online. A good e-commerce site should present the following factors to the customers for better usability.

- Returning to different parts of the site after adding an item to the shopping cart.
- Easy selecting items in a list.
- Effective categorical organization of products.
- Consistent layout of product information.
  - Knowing when an item was saved or not saved in the shopping cart.

Web site feedback often consists of a change in the visual or verbal information presented to the user. Simple examples include highlighting a selection made by the user or filling a field on a form based on a user's selection from a pull down list. Another example is using the sound of a cash register to confirm that a product has been added to an electronic shopping cart.

Completed orders should be acknowledged quickly. The amount of time it takes to generate and download this page, however, is a source of irritation for many e-commerce users. Users are quick to attribute meaning to events. A blank page, or what a user perceives to be "a long time" to receive an acknowledgment, may be interpreted as "there must be something wrong with the order." If generating an acknowledgment may take longer than what may be reasonably expected by the user, then the design should include intermediate feedback to the user indicating the progress being made toward acknowledgment or fulfillment.

Finally, feedback should not distract the user. Actions and reactions made by the web site should be meaningful. Feedback should not draw the user's attention away from the important tasks of gathering information, selecting products, and placing orders.

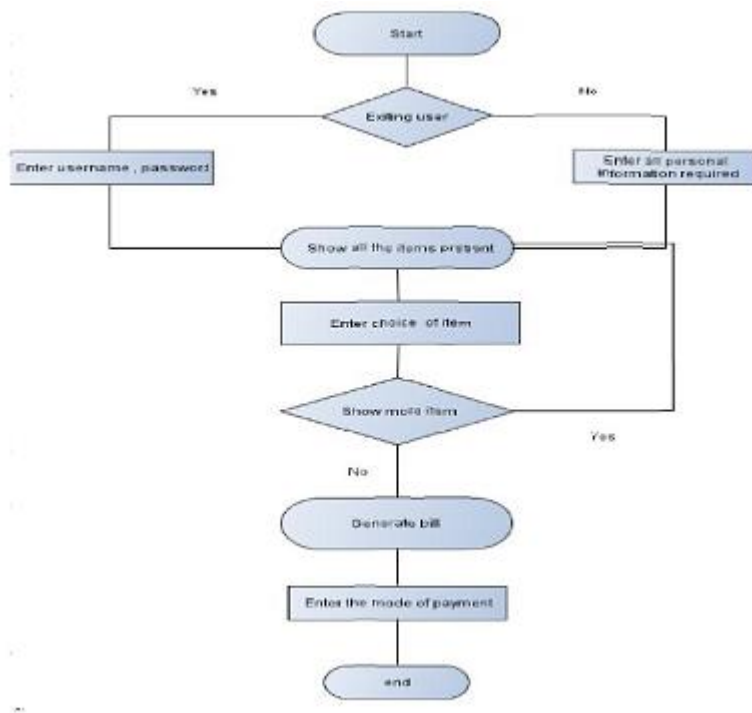
### **3 Overview of the Proposed System**

#### **3.1 Introduction**

In this project I am going to develop a general purpose e-commerce store info wherever electronic product like mobile, computers may be bought.

An online store could be a virtual store on the web wherever customers will browse the catalog and choose product of interest. The chosen things could also be collected during a pushcart. At checkout, the things within the pushcart are conferred as Associate in nursing order. At that point, additional data are required to finish the dealings. Usually, the client are asked to fill or choose a request address, a shipping address, a shipping possibility, and payment data like MasterCard variety. Associate in nursing e-mail notification is shipped to the client as shortly because the order is placed.

#### **3.2 Flow Chart for proposed system**



## Tables

### User

SNO	NAME	TYPE	DESCRIPTION
1	<u>User Type</u>	Archer	Primary Key
2	User_Id	Varchar	Foreign Key
3	Password	Varchar	

### Customer

S NO	NAME	TYPE	DESCRIPTION
1	<u>UserID</u>	Varchar	Primary Key
2	Password	Varchar	Security
3	First_Name	Varchar	

4	Last_Name	Varchar	
5	Address	Varchar	
6	City	Varchar	
7	Zip	Integer	
8	State	Varchar	
9	Email_Address	Varchar	
10	Phone_Number	Varchar	

#### Electronic Item

SNO	NAME	TYPE	DESCRIPTION
1	<u>Item_No</u>	Varchar	Primary Key
2	Item_Name	Varchar	
3	Company	Varchar	
4	No of Items	Integer	
5	Price	Double	

#### Shopping\_Cart\_Items

S_NO	Name	Type	Description
1	<u>Shopping_Cart_Id</u>	Integer	Primary Key
2	Item_No	Varchar	Foreign Key
3	Price	Doubl	
4	Date	Date	
5	UserID	Varchar	Foreign Key
6	Quantity	Integer	

#### Bill

SNO	NAME	Type	DESCRIPTION
1	<u>Type of Shipping</u>	Varchar	Primary Key
2	Price	Double	
3	Approximate days	Integer	

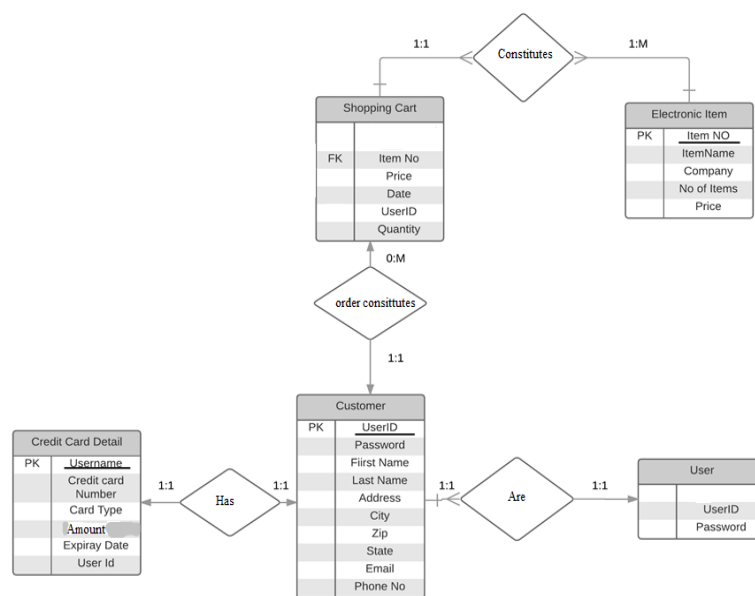
#### Credit Card Details

SNO	NAME	TYPE	DESCRIPTION
1	<u>Credit Username</u>	Varchar	Primary Key
2	Credit Card Number	Varchar	
3	Card Type	Varchar	Master card , Visa



4	CVV Number	Interger	
5	Expiry Date	Date	
6	UserID	Varchar	Foreign Key

### 3.3 Proposed System Model(ER Diagram/UML Diagram/Mathematical Modeling)



## 4 Proposed System Analysis and Design

### 4.1 Non Functional Requirements

#### 4.1.1 Efficiency (in terms of Time and Space)

The java application made by me is quite efficient. It show only retrive only the data that is required and do not contain the redundant data. All data is stored in different tables so there is very less chance of redundancy. Also the operations used are simple insert and

Retrive operation so in terms of time and space application is efficient.

#### **4.1.2 Reliability**

The java application for online shopping is reliable. All the data input by user is stored in database and retrieved when required by MySQL connector for java

#### **4.1.3 Usability**

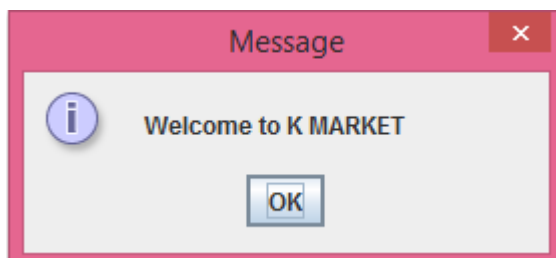
The usability of application for online shopping is that it can work as an interface for buying of items. Even transition is maintained by the application only. So the java application is quite useful

### **4.2 Software Resource Requirements**

- Windows XP (Service Pack3),7,8,8.1 or 10
- MySQL
- Java JED
- Java JVM
- JDBC Connector for my sq.
- Eclipse IDE for JAVA

### **5 Results and Discussion**

Following are the screenshots when application is run for a sample case



Enter all your values

?

User Name  
hg

Password  
.....

First Name  
Arpit

Last Name  
Khurana

Address  
123 model home

City  
model town

Zip Code  
123456

Mobile  
12345679

E mail  
a@hmail.com

OK Cancel

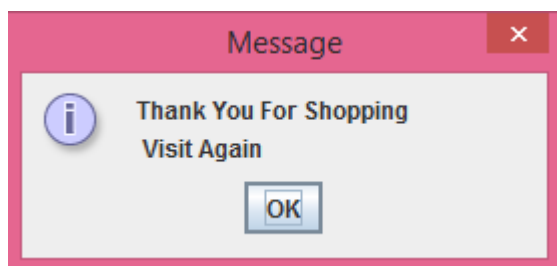
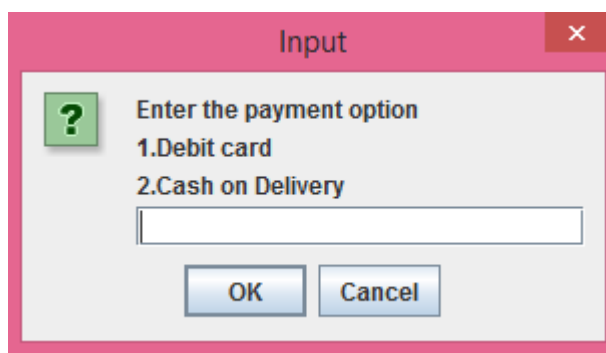
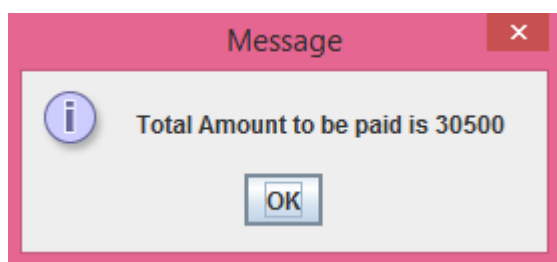
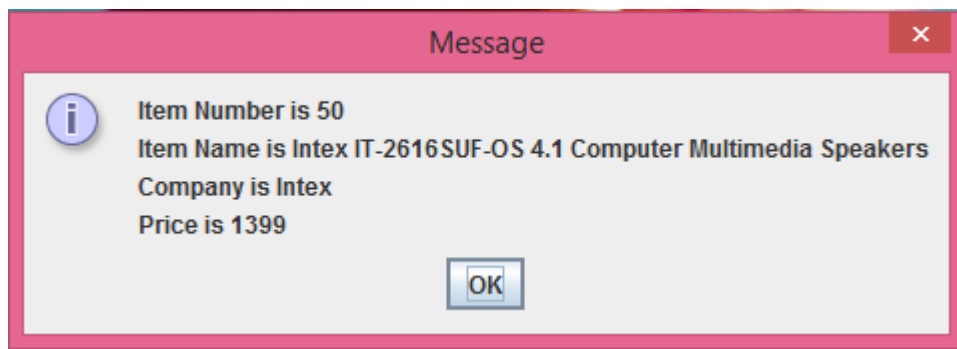
Input

?

What is your wish for today

- 1.Mobile
- 2.Tab
- 3.Camera
- 4.Hard Disk
- 5.PenDrive
- 6.Memory Card
- 7.Printer
- 8.Laptop
- 9.Mouse
- 10.KeyBoard
- 11.Speaker
- 12.Power Bank
- 13.Headphone

OK Cancel



## Back end tables

Table for the electronic items in shop

Item_no	Item_Name	Company	No_of_Items	Price	Type	Type_no
1	Redmi Note 2	MI	120	12000	mobile	1
2	Samsung Galaxy S4	Samsung	100	18000	mobile	1
3	One Plus Two	One Plus	150	19000	mobile	1
4	Laptop i5 i7 i9	Laptop	100	60000	mobile	1
5	iPhone 7	Apple	150	65000	mobile	1
6	Water 3 First	Motorola	170	22000	mobile	1
7	Microsoft Surface 3	Microsoft	120	80000	mobile	1
8	Microsoft Canvas 3	Microsoft	200	90000	mobile	1
9	Hi Max Prime	Nokia	200	10000	mobile	1
10	Samsung Z5	Samsung	170	10000	mobile	1
11	Laptop Yoga Tab	Laptop	100	12000	tab	2
12	Ball Size	Ball	140	8000	tab	2
13	Home TV 32"	Home	100	12000	tab	2
14	Microsoft Canvas 3	Microsoft	150	15000	tab	2

Item_no	Item_Name	Company	No_of_Items	Price	Type	Type_no
15	HP Deskjet 264 Advantage 2020's Printer	HP	100	2500	printer	7
17	Canon Pixma E477 All in One Inkjet	Canon	50	4200	printer	7
18	Brother J450 Wireless Inkjet Laser Printer	Brother	170	2800	printer	7
19	Dell Inspiron 1530 15.6 inch Laptop	Dell	50	13000	laptop	8
40	Dell Vostro 3559 (2515A) Laptop	Dell	50	25000	laptop	8
41	Apple MacBook Air M1 13" (8) Laptop	Apple	50	10000	laptop	8
42	Lenovo G50-80 80G30001 15.6 inch Laptop	Lenovo	50	20000	laptop	8
43	Asus A555A-H1028H 15.6 inch Laptop	Asus	50	28000	laptop	8
44	Lenovo Yoga 360 80P3000101 Touch Laptop	Lenovo	20	20000	laptop	8
45	Dell Latitude 7320 14" 25.6 inch Laptop	Dell	50	25000	laptop	8
46	Logitech B110 Wireless Mouse	Logitech	50	400	mouse	9
47	HP 1388 Wireless Mouse	HP	100	100	mouse	9
48	Logitech K230 Wireless Keyboard	Logitech	100	100	keyboard	10
49	Dell K2218 Wired Multimedia USB Keyboard	Dell	100	400	keyboard	10

## Customers

username	password	first_name	last_name	address	city	zip_code	mobile	email
arpit	123	Arpit	Khurana	123 My House	Lucknow	242001	9335005977	a@gmail.com
hg	Khurana	Arpit	Khurana	123 model home	model town	123456	12345679	a@hotmail.com
tarak	123	Tarak	Patel	123 Model Town	Surat	242001	9335005977	a@gmail.com
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

## Card details

card_username	card_number	card_type	card_password	expiry_date	amount
itsarpit	123	Visa	123	21-dec-1997	2
hello	456	Visa	456	1-dec-1997	50000
NULL	NULL	NULL	NULL	NULL	NULL

## 5.2 Result Summary

In this project I have developed a java application that will take input from user and store the data in MySQL using JDBC. In this application I have used MySQL connector which will connect the application with MySQL database. In this project interface will take input from user and store data in MySQL database. It will retrieve data from MySQL database and show the items that are available. The user can buy any item and at last bill will be generated.

## **6 Conclusion, Limitations and Scope for future Work**

So I have successfully implemented a java application which can be considered as a small version of online shopping portal. In my project I have created an interface which will take input from user and store data in MySQL database. It will first ask about user personal information then show him recommended items for him. Then ask him about the items he want to buy and finally bill is generated and mode of payment is asked so the transition can be completed

For future work the interface can be made more interactive and can be modified to work in different machines.

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- [2] <http://www.hindu.com/rp/2008/05/02/stories/2008050250130300.htm>
- [3] [http://articles.timesofindia.indiatimes.com/2012-06-25/news/32408603\\_1\\_retail-sector-retail-industryglobal-retaildevelopment-index](http://articles.timesofindia.indiatimes.com/2012-06-25/news/32408603_1_retail-sector-retail-industryglobal-retaildevelopment-index) (11/11/2012)
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