B.Sc. Engg. Thesis

A Thesis on Online Shopping Management System

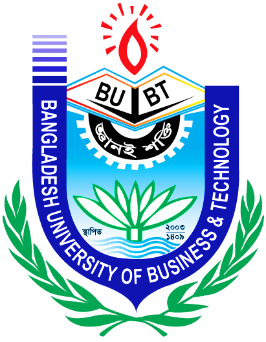
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Submitted to

Department of Computer Science & Engineering

(In partial fulfillment of the requirements for the degree of  
Bachelor of Science in Computer Science & Engineering)



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**Declaration**

We hereby declare that the Thesis on Online Shopping Management System submitted in partial fulfillment of the requirements for the degree of Bachelor of Science in Computer Science and Engineering of Bangladesh University of Business and Technology (BUBT) is our own work and that it contains no material which has been accepted for the award to the candidate(s) of any other degree or diploma, except where due reference is made in the text of the project. To the best of our knowledge, it contains no materials previously published or written by any other person except where due reference is made in the project.

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**Dedication**

*Dedicated to our parents, teachers, friends and who loved us for all their love and inspiration.*

**Certificate**

This is to certify that Tunazzinur Rahman Kabbo (ID-19202103268), Hamim Reza (ID-19202103269), Zobayer Hasan Nayem (ID-19202103274), Rubaiatul Jannat (19202103249) and Md. Abu Essa (ID-19202103265). were belong to the department of Computer Science and Engineering, have completed their Thesis on Online Shopping Management System using SQL satisfactorily in partial fulfillment for the requirement of Bachelor of Science in Computer Science and Engineering of Bangladesh University of Business and Technology in the year 2021.

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**Introduction**

* 1. **Introduction**

This “Online-Shopping-Management-System” is a database system where a shop will have the facility to calculate and manage everything. It contains all the necessary details of all products, customers and employees on a daily, monthly and yearly basis. Through this system the manager of a shop can easily manages the functions of his shop.

**The Online Shopping System will have the following key features:**

* A search engine on the database to allow customers to find specific types of merchandise.
* A secure system that will allow shoppers to purchase goods safely using their credit cards.
* A data security system that will ensure that all data that is transmitted between the various system.
* A database of merchandise with photos, product descriptions and stock information. This database will also contain all relevant merchant and customer information.
* Customer reviews of the product. These ideas will add more of a personal touch to their overall shopping experience.
* A fast guest checks out option

**Description**

* 1. **How an online shopping management** **system works**

An Online Shopping System 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 Online Shopping System 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 Online Shopping System website that will allow users to buy goods from the merchants.

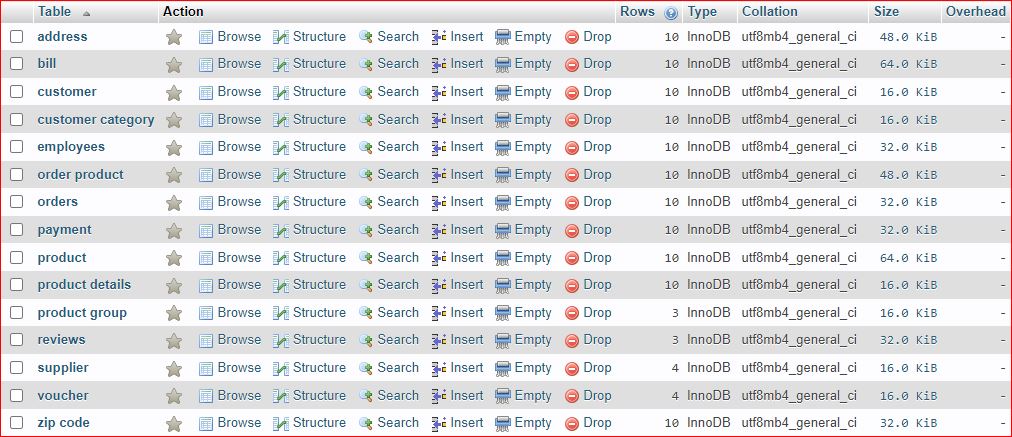
* 1. **Our Project Details**

So, keeping this facility in mind, we have created this type of project so that an owner can run all the accounts and activities of the shop in a smooth manner. This facility includes how many customers order products in the store, how many employees work in our store. Where the buyer's product will go, the buyer's address, all kinds of information. From which employee did the order come, how did the buyer pay, what product did he order. In addition to product reviews, how the buyer views a product. No product returned. And the product that the buyer buys belong to which tag, also the discount of the product can be known.

**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.

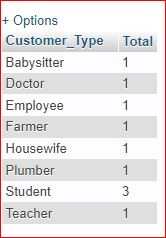
**Software Details for running Online Shopping System:**

* Web Server (Apache)
* MYSQL
* Google Chrome
  1. **Tables**
* **Address —** (Address\_ID, Apartment\_Number, Street, Customer\_ID)
* **Bill —** (Billing\_ID, Billing\_Date, Amount\_Paid, Voucher\_ID, Payment\_ID, Order\_ID)
* **Customer —** (Customer\_ID, First\_Name, Last\_Name, Phone\_Number, Email\_Address, Customer\_Type)
* **Customer Category —** (Customer\_Catagory, Customer\_ID)
* **Employees —** (Employee\_ID, Employee\_Name, SSN, Designation, Employee\_Type, Salary, Payment\_ID)
* **Order Product —** (Quantity, Product\_ID, Order\_ID)
* **Orders —** (Order\_ID, Order\_Date, Status, Shipment\_Duration, Payment\_ID)
* **Payment —** (Payment\_ID, Payment\_Mode, Card\_Type, Card\_Number, CVV, Name\_On\_Card, Customer\_ID)
* **Product —** (Product\_ID, Product\_Name, Available\_Number, Group\_ID, Supplier\_ID, Review\_ID)
* **Product Details —** (Product\_ID, Weight, Width, Height, Colour)
* **Product Group —** (Group\_ID, Group\_Name)
* **Reviews —** (Quality\_Rating, Defect%, Review\_ID, Review\_Date, Product\_ID)
* **Supplier —** (Supplier\_ID, Supplier\_Name, Supply\_Quantity)
* **Voucher —** (Voucher\_ID, Discount%)
* **Zip code —** (State, Zipcode\_ID, City, Address\_ID)
  1. **Queries & Results**
* **Find how many customers are there group by category**

SELECT Customer\_Type, COUNT(Customer\_Type) AS Total

FROM customer

GROUP BY Customer\_Type;



* **Find apartment whose name is 'Bilash Vobon' or zip code id is 1210**

SELECT Address\_ID, Apartment\_Name, Zipcode\_ID

FROM address

WHERE (Apartment\_Name= 'Bilash Vobon' OR Zipcode\_ID = '1210')

ORDER BY Zipcode\_ID DESC;



* **Find the supplied product count and their group for each product**

SELECT supplier.Supplier\_ID, supplier.Supplier\_Name, Count(product.Group\_ID)

AS `Product Count`, `product group`.Group\_Name

FROM supplier

INNER JOIN product

ON supplier.Supplier\_ID = product.Supplier\_ID

INNER JOIN `product group`

ON product.Group\_ID = `product group`.Group\_ID

GROUP BY Supplier\_ID ASC;



* **List of products by department which has high defect%**

SELECT reviews.Product\_ID, product.Product\_Name, MAX(reviews.`Defect%`)

AS `Defect%`, `product group`.Group\_Name

FROM reviews

INNER JOIN product ON reviews.Product\_ID = product.Product\_ID

INNER JOIN `product group` ON product.Group\_ID = `product group`.Group\_ID

GROUP BY `product group`.Group\_ID;



* **Total amount of revenue earned with respect to their purchasing modes**

SELECT COUNT(Payment\_Mode) AS Total\_Cutomers, payment.Payment\_Mode, SUM(bill.Amount\_Paid)

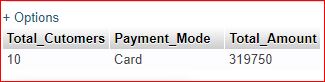
AS Total\_Amount

FROM payment

INNER JOIN bill

ON payment.Payment\_ID = bill.Payment\_ID

GROUP BY Payment\_Mode;



* **Find the quantity of products available whose status is in progress and shipment duration is immediate**

SELECT product.Product\_Name, product.Available\_Number, `order product`.Quantity, orders.Order\_Date, orders.`Status`, orders.Shipment\_Duration

FROM orders

INNER JOIN `order product`

ON orders.Order\_ID = `order product`.Order\_ID

INNER JOIN product

ON `order product`.Product\_ID = product.Product\_ID

WHERE orders.`Status` = 'In Progress' AND orders.Shipment\_Duration = 'Immediate';



* **Find the names and defect% order by defect%**

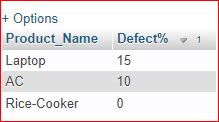
SELECT Product\_Name,`Defect%`

FROM product

INNER JOIN reviews

ON reviews.Product\_ID = product.Product\_ID

ORDER BY `Defect%` Desc;



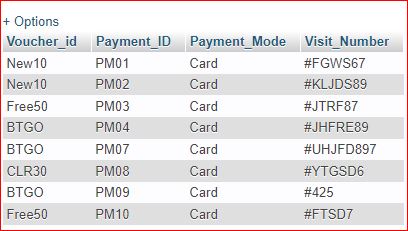
* **Find customers payment id, mode, voucher applied and their visit number**

SELECT bill.Voucher\_id, payment.Payment\_ID, payment.Payment\_Mode, payment.Visit\_Number

FROM bill, payment

WHERE payment.Payment\_ID = bill.Payment\_ID

AND bill.Amount\_Paid > 1000;



* **Find product and their respective color**

SELECT Product\_Name, Colour

FROM `product details`

INNER JOIN product

ON `product details`.Product\_ID = product.Product\_ID

ORDER BY Colour;



* **Find the product names and their respective groups**

SELECT Group\_Name, Product\_Name

FROM `product group`

INNER JOIN product

ON `product group`.Group\_ID = product.Group\_ID

ORDER BY Group\_Name;



* **Find total salaries paid to each employee type**

SELECT SUM(Salary), Employee\_Type

FROM employees

GROUP BY Employee\_Type;



* **Find maximum salaries paid to each employee type**

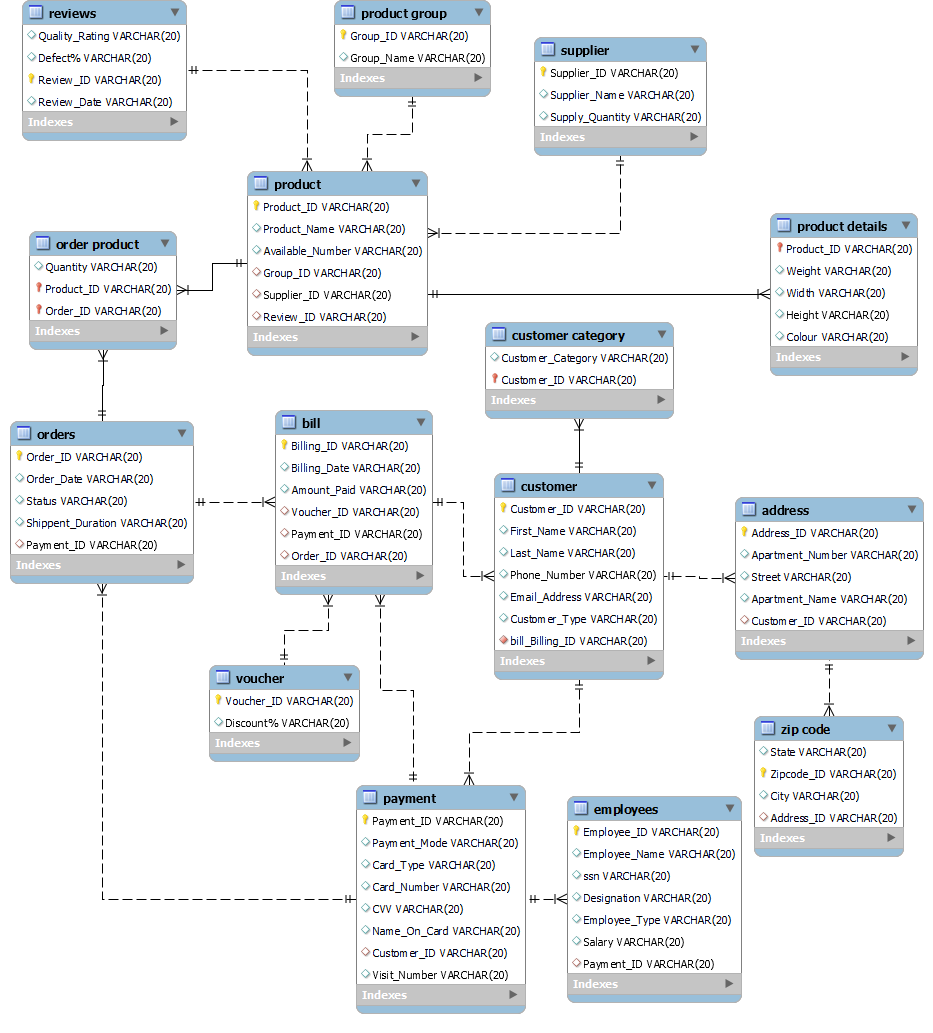
SELECT MAX(Salary), Employee\_Type

FROM employees

GROUP BY Employee\_Type;



* 1. **ER Diagram**

****

**Extensions**

* **Future scope and further enhancement of the project:**

Today, the market place is flooded with several Online Shopping System 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 Bangladesh. Today, it is a reality in India. In the last couple of years, the growth of Online Shopping System industry in Bangladesh 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 shopper’s psyche and cater to their needs.

* **Bibliography:**
* Articles on Ecommerce - www.epaynews.com/statistics/
* Articles on Ecommerce - www.merchantpicks.com
* Articles on Ecommerce - www.google.com
* Articles on Ecommerce - www.emarketer.com
* Articles on Ecommerce - www.internet-story.com/
* Articles on Ecommerce -www.networld.com/hosting/online-shopping-system.com
* Articles on Ecommerce - www.exploitlib.org/issue3/online-shopping-system/
* Articles on Ecommerce - www.onlineshoppingsystemtimes.com/perl/story/18403.html
* Articles on Ecommerce - www.eglobal.es/cisco\_view.pdf
* Articles on Ecommerce - www.cnn.co
* **Conclusions:**

Finally, successfully develop and implement the site 'Online Shopping Management System'. With the help of various kinds of links and tools, includes all the features which was basic requirement for an ecommerce web site. Provide an ecommerce site which is live and running on the web. Finally got success in our attempt to take care of the needs of both the customers as well as the administrator which was our main objectives.

**THANK YOU**