



North South University
Department of Electrical & Computer Engineering

Project Report

“E-commerce Web Application”

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Course Code: CSE 311
Course Title: Database Systems

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ACKNOWLEDGMENT

I would like to take this opportunity to express my gratitude to my teacher “Ahmed Fahmin” sir as well as our Lab instructor “Najmul Alam Diptu” Bhaiya for providing a wonderful opportunity to do this project on the topic “E-Commerce Web Application”. The opportunity helped me to improve my programming skills and helped me to learn about Database Systems and gain web developing knowledge.

Introduction

The use of websites, software and social media has gained momentum as a growing trend in the business world today. Different organization involved in businesses have significantly embraced the use websites for innovation and improving efficiency in operations. Regardless of awareness or location a business, websites connects teams and communities much easier and quickly due to their mode of working, roles and needs. This is a B2C web application. Here are two types of users. One is admin who is belongs to company manager/authority. And another type of user is customer.

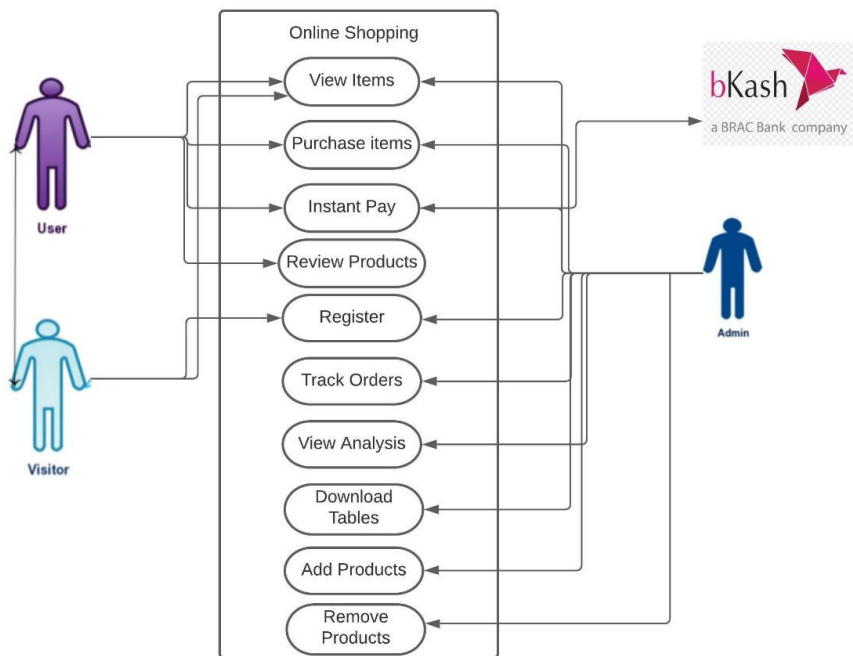
Functionality

Admin:

- Can Upload Products
- Delete products
- Delete customer
- Edit products
- See how much sale
- See product analysis (which product how many times sold)

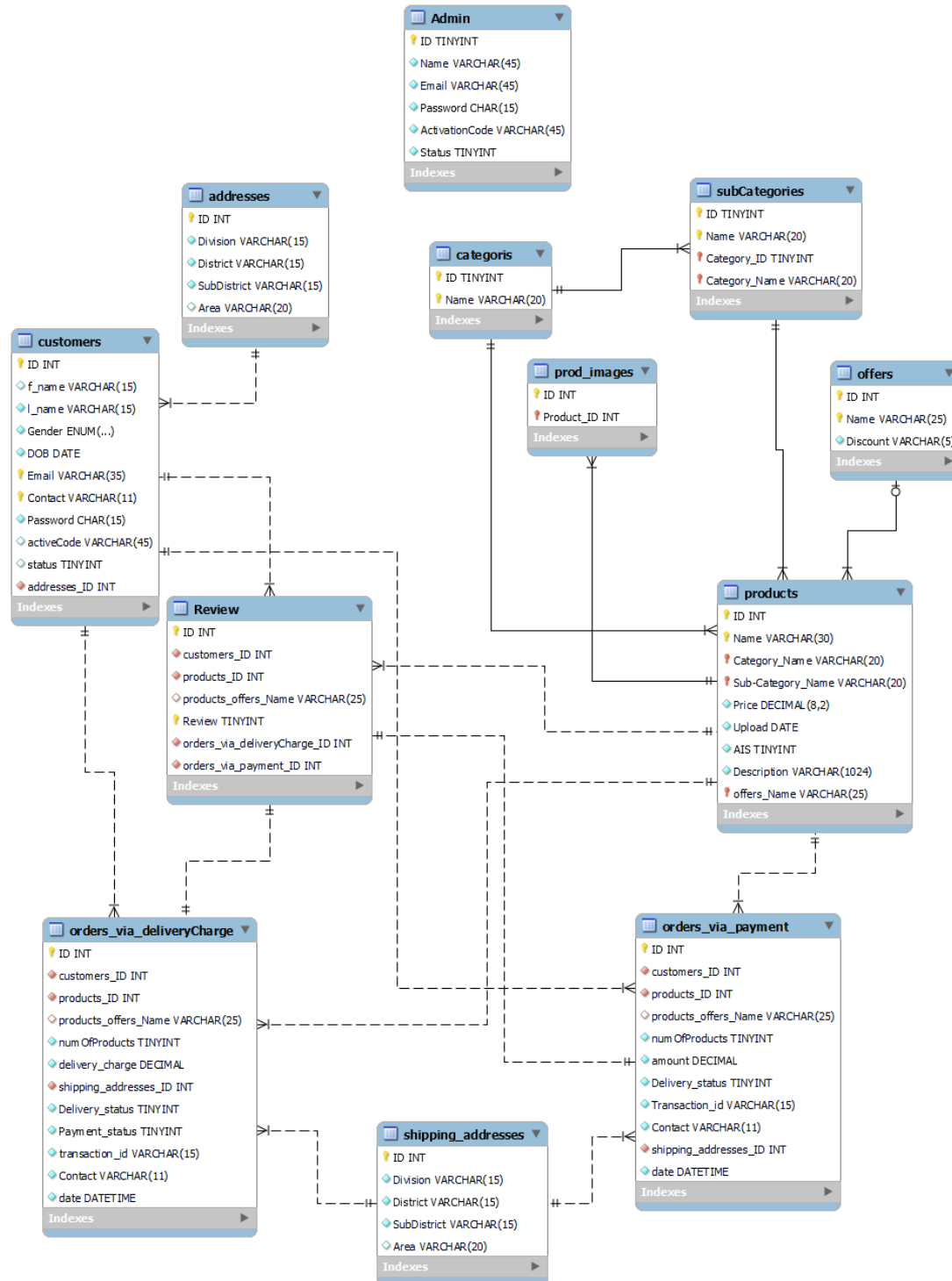
Customer:

- See products
- Buy products
- Review products (After purchased)
- Update their profile
- See purchase history



Implementation Process

➤ Database Design:



➤ **Backend:**

For backend implementation I' have used Laravel. Using Laravel I made a RESTapi. There are few controllers in this project where I have implemented all the conditions and databases query. For query purpose, I have used join, sub query, Aggregate function, group by and transaction. For authentication I have used sanctum authentication. I have made two middleware groups, one for admin and another for customer. There are five controllers in backend implementation.

- **AdminController:** This file is responsible for admin registration and login. Here few functions are implemented. register() function in AdminController is for admin registration. login() is for admin sign in to this app.
- **CustomerController:** This controller is maintain customer's sign up,sign in,update profile,delete profile etc. Customer's purchased history will generate by this controller using purchaseHistory().
- **ProductController:** This controller is used for product control . Like new product add, update product, product image add, retrieve specific product details from database, retrieve all product details, retrieve whole product table, delete product, also provide product analysis using simple calculation.
- **OrderController:** This is used for order control. This controller contains few functions , one is CreateOrder(), it will take a product id as parameter, and number of products, Shipping address information, and if all the requirements are full,it will create an order. Delivery status and payment status will maintained by this controller. Retrieve order table using this controller.
- **ReviewController:** This controller is used for maintain review system. Here is a function call GiveReview which will receive a product id as a parameter, and take necessary filed(order id, rating, comment) to create review for a product.

There are 8 models used for database.

- Admin : It will keep necessary information about admin
- Customer: It will keep customer's basic info,(first name, last name,image_path,date of birth,email,password,contact number)
- Address: It will keep customer's address.
- Product: Product model is used for product's information
- Product_image : This is for product Images.
- Order: Order model is created for order's data\
- Review: Review model is used for review's data
- Shipping_Address: This is used for shipping address.

➤ Frontend:

For frontend implementation I've use reactjs. React is a library of javascript.

Sample Front End

Admin Sign Up Page

SIGN UP

Name

Email Address

Password

Confirm Password

REGISTER

Have an Account? [Login](#)

Customer Sign Up Page:

COMPANY NAME

SEARCH

CATEGORY +

OFFERS +

CART

SIGN IN

Get started with us today! Create your account by filling out the information below.

Name

First Name

Last Name

Email

Enter your email

Contact

Enter your Contact

Gender

☒ Male ☐ Female

Password

Enter your password

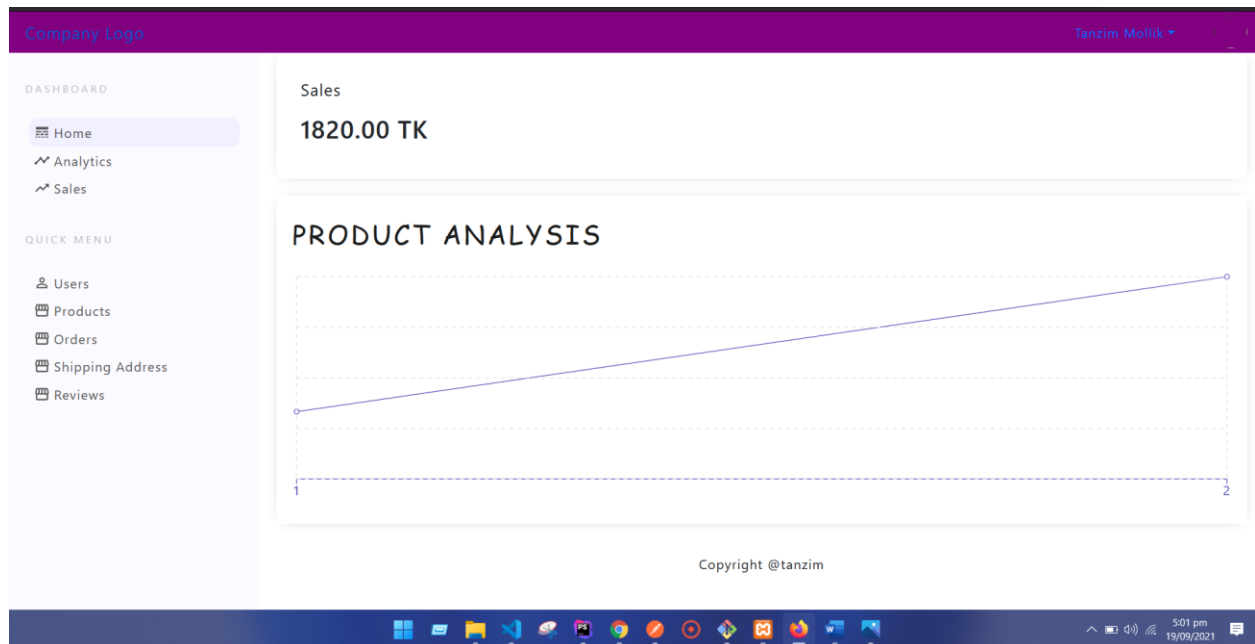
Confirm Password

Confirm your password

Sign up

Already have an account? [Login here](#)

Admin Dashboard



This is admin dashboard. Here left corner ,home is link to the home page of this application,

this product analysis graph will show ,which product how many time sold.

Under quick menu,

Users is link to user table, products is link to products table, orders ,shipping address and reviews are respected to their table.







Products table :

PRODUCTS							
DOWNLOAD PRODUCTS				+ CREATE PRODUCT			
ID	NAME	PRICE	CATEGORY	DESCRIPTION	IN STOCK	OFFER	ACTION
1	Dress 1	2500.00 TK	Woman	This is Dress 1	7	None	+ ✎ ✖
2	Dress 2	3200.00 TK	Man	This is Second Dress	10	None	+ ✎ ✖

Orders Table:

ORDERS

 DOWNLOAD ORDERS

ID	CID	PID	NUM OF PRODUCTS	AMOUNT	PAYMENT STATUS	DELIVERY STATUS	ACTION
1	1	1	3	7500.00	1	1	  
2	1	2	2	6400.00			  

Shipping address:


Company Logo	Tanzim Mollik ▾
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SHIPPING ADDRESS

ID	ORDER ID	DIVISION	DISTRICT	SUB DISTRICT	AREA
1	1	Rajshahi	Sirajganj	Sirajganj	Mujib Sarak
2	2	Rajshahi	Sirajganj	Sirajganj	Mujib Sarak

Customers Table:

CUSTOMERS

 DOWNLOAD CUSTOMERS

ID	FIRST NAME	LAST NAME	GENDER	DATE OF BIRTH	EMAIL	CONTACT	ACTION
1	Ahalya	Mitra	Female	1993-10-06	ahalya@gmail.com	01744552233	

Review Table

Company Logo	Tanzim Mollik ▾
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REVIEWS

ID	PRODUCT ID	CUSTOMER ID	ORDER ID	RATING	COMMENT
1	1	1	1	5	Nice Dress

Customer Profile Look:

COMPANY NAME

Search Products...

SEARCH

CATEGORY +

OFFERS +

CART

AHALYA +

USER DETAILS

Ahalya Mitra

Female

Account Details

1993-10-06

Contact Details

01744552233

ahalya@gmail.com

Dhaka | Dhaka

EDIT

Purchase History

ORDER ID	PRODUCT ID	PRODUCTS QUANTITY	AMOUNT	PAYMENT STATUS	DELIVERY STATUS	ORDER TIME
1	1	3	7500.00			2021-09-19 17:10:14
2	2	2	6400.00			2021-09-19 17:10:37

Product Details Page

COMPANY NAME

Search Products...

SEARCH

CATEGORY +

OFFERS +

CART

Dress 1

REVIEW

DRESS 1

★★★★★ 1 reviews

Price: 2500.00 TK

Description: This is Dress 1

Price: 2500.00 TK

Status: In Stock

Qty

ADD TO CART

Here unfortunately image are not showing due to technical issue.

Difficulty Faces :

There are few difficulty I have faced to do this project. One of them was integration of API's. Redux implementation was one of the toughest part in this project

Conclusion:

Overall it was a great opportunity for me to work in this project. Though I could not make full fill my commitment that I made in project proposal, but I have tried my best to complete this project. But unfortunately I made some mistakes.