

An ecommerce solution for most of your electronic needs.

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Project Overview

- Star Gadgets is a B2C(Business to Customer) type of ecommerce solution that involves customer gathering goods, collecting information on the goods and receiving these products over an electronic network. This type of eCommerce is second largest and earliest form of ecommerce.
- Star gadget specializes in online retail of electronics such as mobiles, laptops, tv, computers etc. It enables users to easily buy electronics over digital media.
- The system allows user to shop year around 24/7 without having to worry about anything.
- User can select products from various categories and different vendors.

Project Overview(Contd.)

- B2C e-commerce transactions are not strictly bound to retail shopping. Many customers purchase health insurance, auto insurance and similar products online.
- Star gadgets is just a small part of a very large system/domain. Star gadgets strictly belongs to the retail domain.
- Retailers are part of an integrated system called the supply-chain which is again the
 management of the flow of goods and services, that involves the movement and storage
 of raw materials, of work-in-process inventory, and of finished goods from point of origin
 to point of consumption.

Our Mission

"When we successfully create a connection with the customers and employees, many of them might stay loyal for life -- and have the chance to increase the overall profitability while delivering maximum customer satisfaction."

Stargadgets is just a small initiative towards this belief.

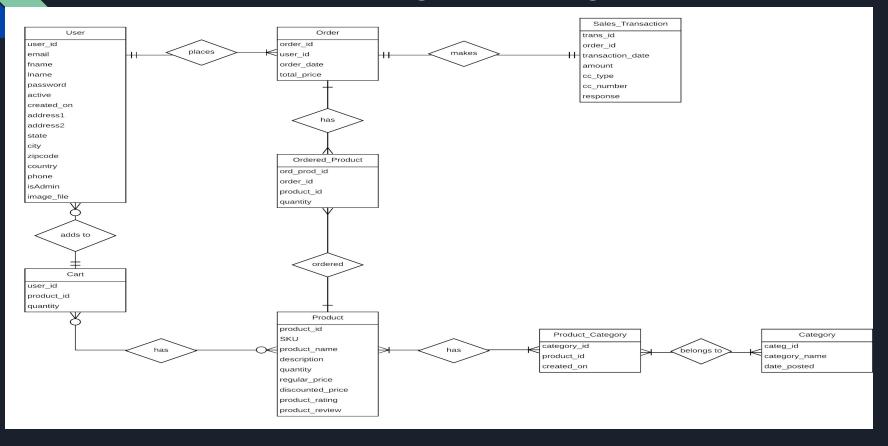
Targeted Users

The target users for this project are the customers who are in the online retail market to buy electronic products such as ty,computer,phones with quality and best services.

The customers will largely be using the application for purchase purposes but are always able to browse through the products and get the relevant information without actually having to make a purchase.

Another user for the application would be the admin who will do day-to-day administration activities such as adding products, blacklisting users or have a look at the statistical analysis of the products sold.

Database design- ER Diagram 2.0



Functional Requirements

Project Scope

Design Goals: The application consists of mainly 3 flows -

Flow #1 -

View Home Page

Browse products

View Product Details

Become a Member through Registration process

Login to registered account

Login to site

Add to cart

Home Page









- Watches
- Computers
- TV, Appliances, Electronics
- Mobiles

Items













\$ 10490.0

\$ 4999.0

\$ 4999.0

\$ 4999.0

\$499.0

\$ 299.0









\$ 599.0 \$ 999.0 \$ 499.0 \$ 999.0

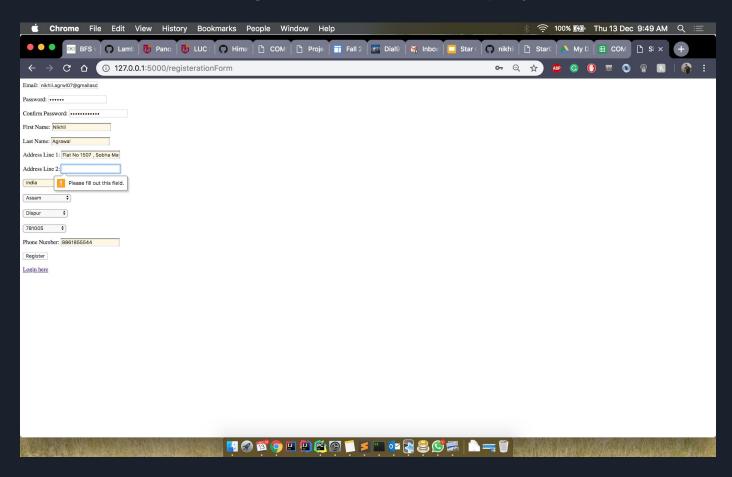
User Login

Email:		
Password:		
Submit		
Register here		

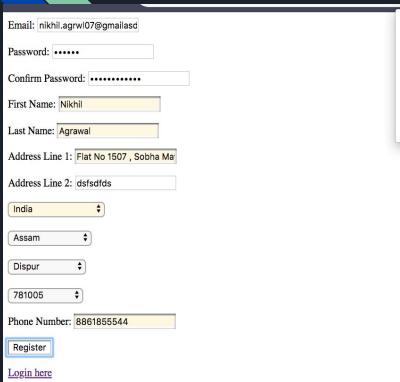
User Registration/Sign Up

Email: nikhil.agrwl07@gmaila
Password: ••••
Confirm Password: ••••
First Name: Nikhil
Last Name: Agrawal
Address Line 1: Flat No 1507, Sobha N
Address Line 2: APT 811
USA \$
California •
Los Angeles 💠
✓ Select Zip 90001 90002 90003 90004
<u>Login here</u>

User Registration - Empty Field



User Registration - Password don't match



127.0.0.1:5000 says
Passwords do not match
OK

User Logged Home Page

Search







Shop by Category:

- Watches
- Computers
- · TV, Appliances, Electronics
- Mobiles

Items













\$ 999.0

\$ 10490.0

\$ 4999.0

\$ 4999.0

\$ 4999.0

\$499.0

\$ 499.0

\$ 299.0



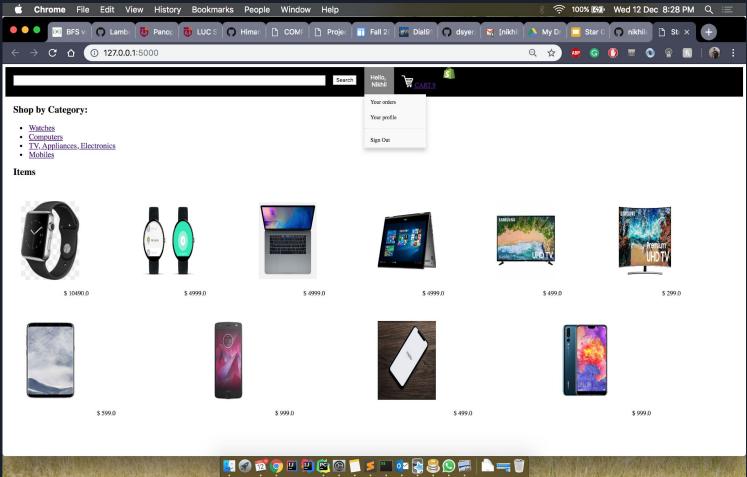




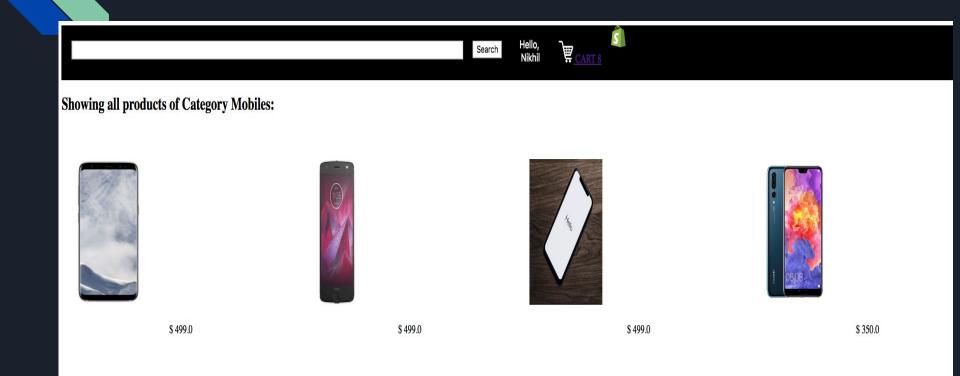


\$ 599.0

Signout/My Profile/My Order



Category Browsing Page



Product Landing Page







Huawei



Details

Name Huawei Regular Price \$ 350.0 Discounted Price \$ 999.0 Stock 1

Description

Huawei

Add to Cart

Product Added in Cart

Search

Hello Nikhi



Shop by Category:

- Watches
- Computers
- TV, Appliances, Electronics
- Mobiles

Items













\$ 10490.0

\$ 4999.0

\$ 4999.0

\$ 4999.0

\$ 499.0

\$ 299.0









\$599.0 \$999.0 \$499.0

Cart Panel (Flow #2):-

View cart product

Remove Product from cart

Checkout

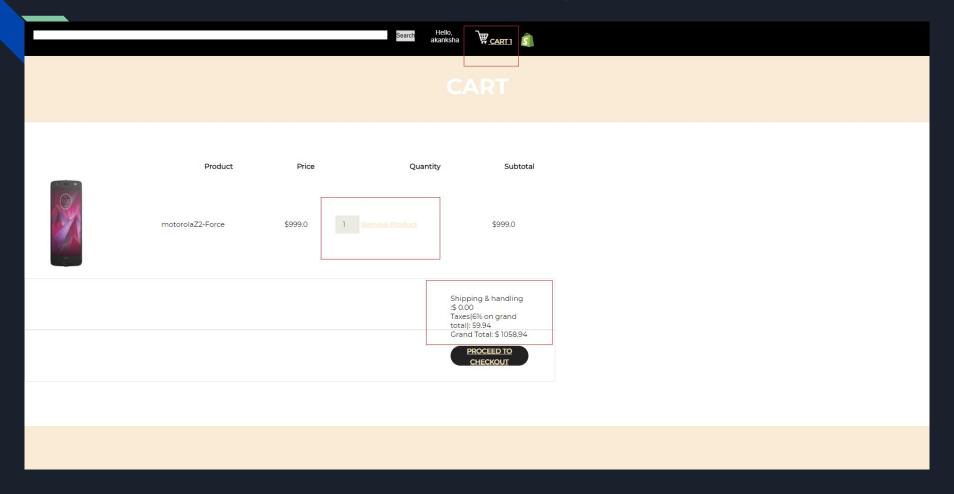
Make Payment

Order Details

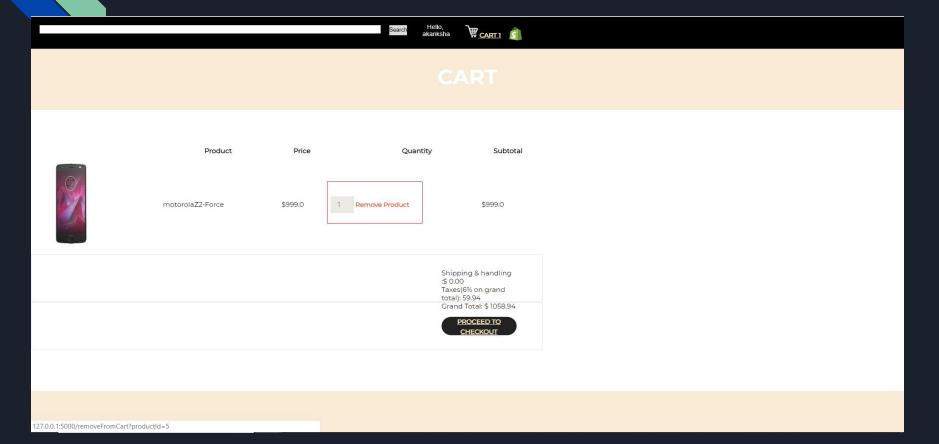
Text And Email Confirmation

Visualization - python graphs

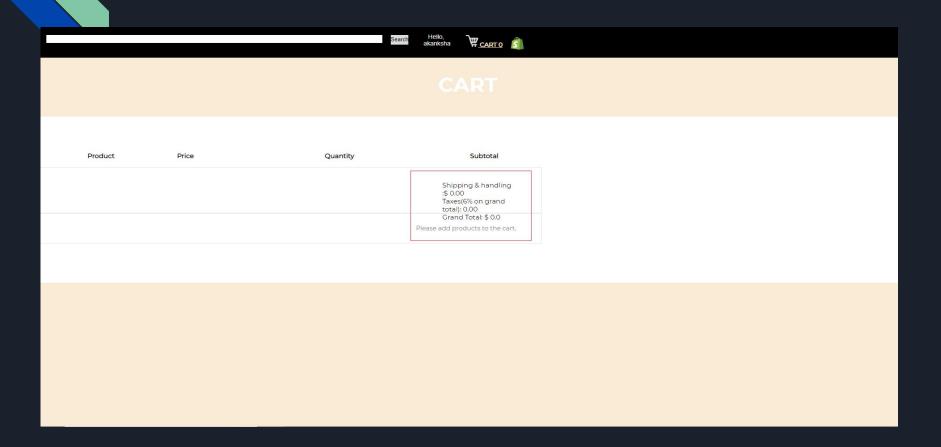
Products currently in cart



On hovering and clicking remove product highlights

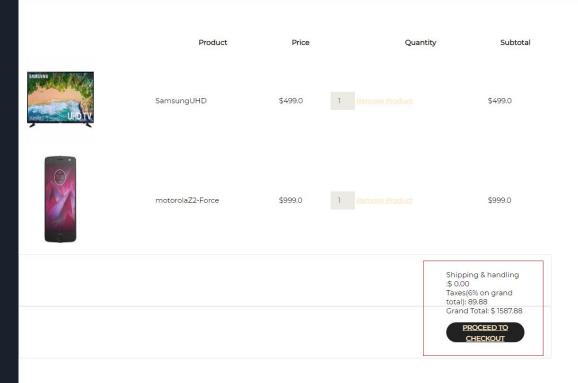


Products Removed /Empty Cart

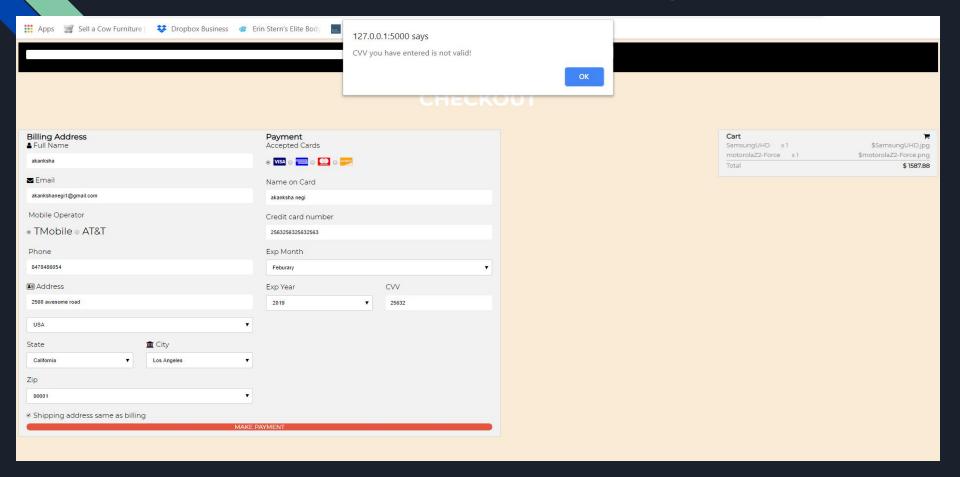


Added 2 products and verifying Grand Total User clicks on proceed to checkout

CART

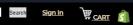


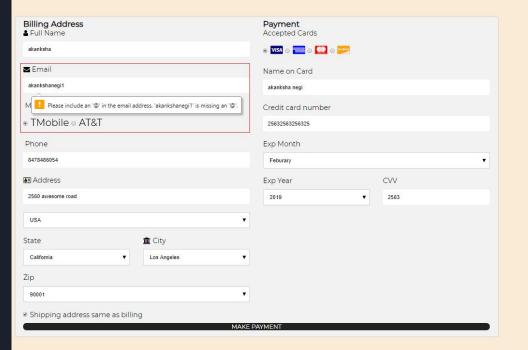
Various Validations on page





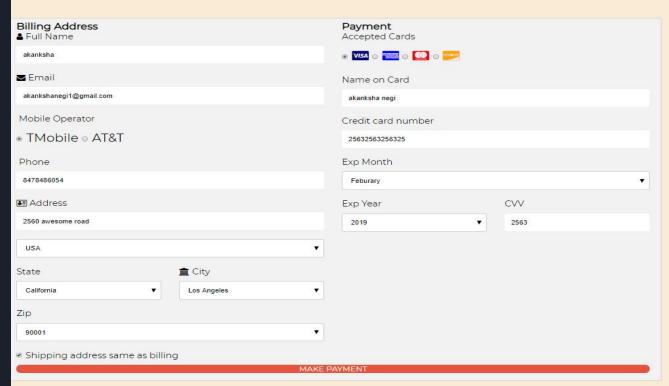




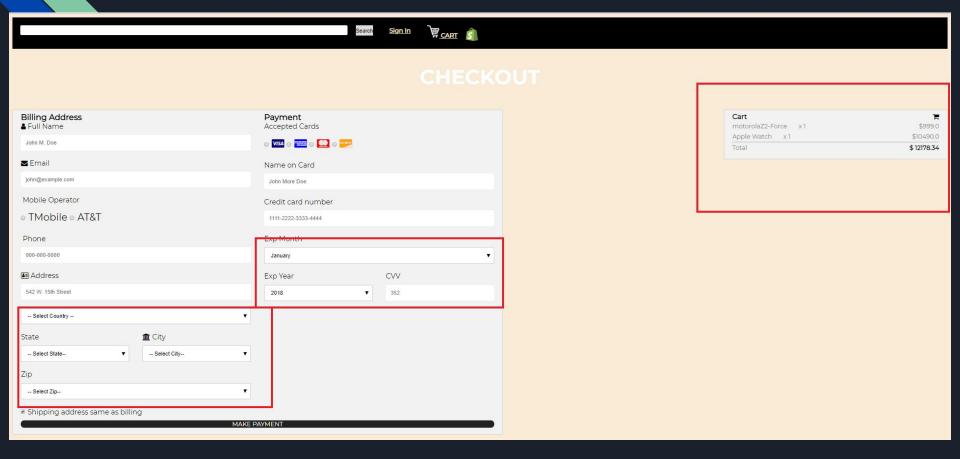


Cart	' =
SamsungUHD x1	\$SamsungUHD.jpg
motorolaZ2-Force x1	\$motorolaZ2-Force.png
Total	\$ 1587.88

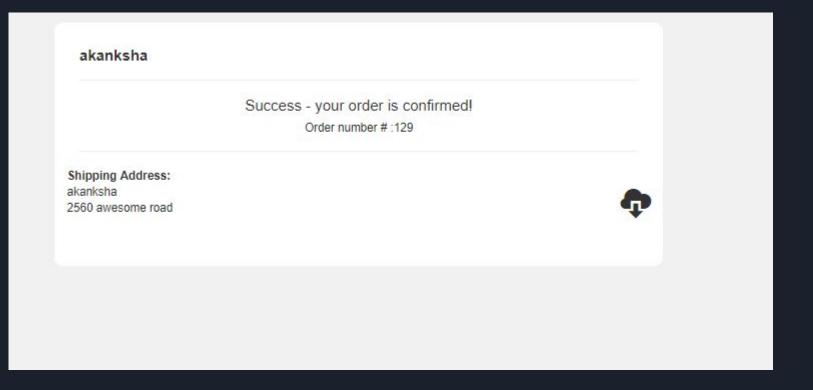


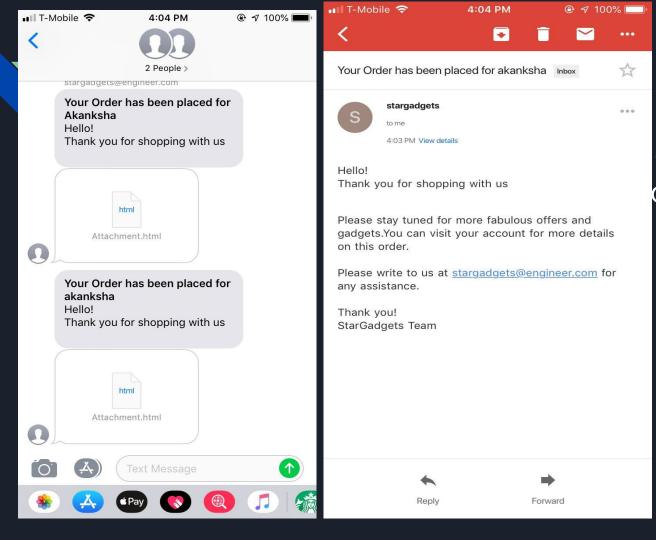


Product currently buying and various dropdowns



When user enters correct details and clicks on make payment page- Orderdetails





Email and text confirmation are delivered to user!

See Trends-Graphs! Top 3 most selling products



export to plotily

Top 3 least selling products



Admin Panel (Flow #3)

Categories

Create, Read, Update, Delete

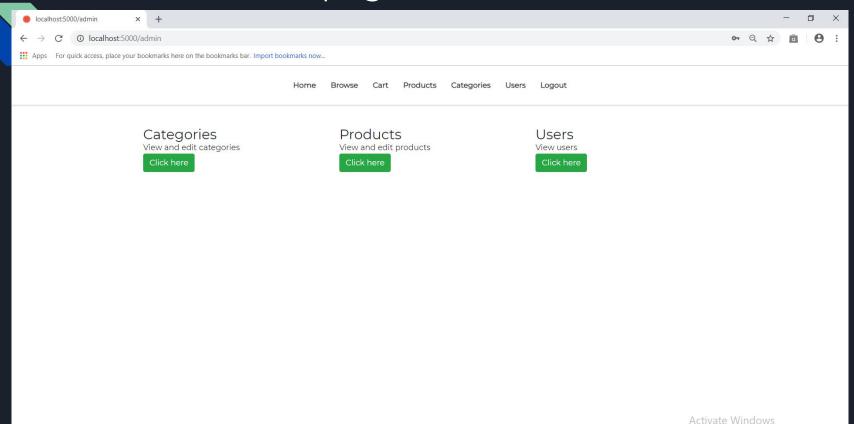
Products

Create, Read, Update, Delete

Users

View users & show the number of orders that they have placed

Admin homepage







List of categories

Category Name	Number of products	Actions
Mobiles	10	View
TV, Appliances, Electronics	3	View
Computers	1	View
Watches	1	View

Add, update, delete categories

Category N	ame
Save	
Category Nar	me Mobiles
Save	
Deleting category	Are you sure you want to delete this category?
	Close Delete

List of products

Sku	Name	Description	Regular Price	Discounted Price	Quantity	View
123	Iphone-X	Iphone-X	499.0	499.0	3	View
234	SamsungUHD	SAMSUNG UN43NU6900 43" CLASS/42.5"	499.0	499.0	1	View
456	SamsungS8	SamsungS8	499.0	459.0	1	View
678	motorolaZ2-Force	motorolaZ2-Force	499.0	496.0	2	View
8910	SamsungCurved	65" Class Q8C Curved QLED 4K TV	499.0	359.0	1	View
101112	Macbook	Macbook	499.0	451.0	1	View

Add and update product

Product Image
Browse No file selected.
Category: Mobiles
Product SKU:
Product Name:
Product Description:
Product Price:
Product Quantity:
Save

Product Image			
Browse No file selected.			
Category: TV, Appliances, Electronics >			
Product SKU: 234			
Product Name: SamsungUHD			
SAMSUNG UN43NU6900 43" CLASS/42.5" DIAG 4K UHD MR120 SMART TV HDR 10+ PUR COLOR			
Product Price: 499.0			
Product Quantity:			
Save			

View product (admin)

SamsungUHD



Details

Name SamsungUHD

Regular Price \$499.0

Discounted Price\$ 499.0

Stock

Description

SAMSUNG UN43NU6900 43" CLASS/42.5" DIAG 4K UHD MR120 SMART TV HDR 10+ PUR COLOR





List of users

Name	Email	Status	City	State	# of orders
Nikhil Agrawal	nikhil.agrwl07@gmail.com	Active	Chicago	IL	0
User2 LastName2	nikhil.agrwl071@gmail.com	Active	CHICAGO	Illinois	0
Shend Vishi	vishi.shend@gmail.com	Active	Los Angeles	California	0
Shend Vishi	svishi@luc.edu	Inactive	Los Angeles	California	0

Challenges/ Obstacles

1. <u>Text confirmation to mobile phone number</u>

Tried 3 different ways to implement this, but only succeeded with one:-

First one was with third party library that is "TWILIO", I wrote code and debugged and debugged only to realise that trial membership doesn't really allow us to send actual messages and only test to some registered number. So, in order to use this we would have to buy their product

Second, I tried "TextMagic". No real magic there, lots of unknown libraries that werent there in anaconda, so in order to use this we would have to incorporate the library in our project. That would make it messy.

Lastly the saviour, a hack. I used "SMStoEmail" gateway to send messages using smptplib which is really pretty cool with a downside, message sender is an email address. Nonetheless does the job.

Challenges/ Obstacles 2

- 1. Setting Up/Configuring flask-SQLAlchemy ORM along with RAW MYSQL DB connection within same project
- 2. Defining flask session at per user login level instead of overall level and changing it's default value
- 3. Loading dependent (parent-child related) javascript values on user registration page (still not able to figure on how to read values directly from DB in javascript files)

Out Of Scope/Future Scope

An ecommerce database is a vast database where in many areas play important role such as delivery, shipment, vendors etc. Hence, in this ever evolving world that we live in there is always scope for improvements and adding more features to any application.

Our app is no different, in fact we think it can do so much more but we tried our best in whatever the time permitted us to.

One of these enhancements that we envisioned was that of adding the ability to use coupons at checkout which everyone loves these days. We created a schema for it but unfortunately because of time limitations we weren't able to implement it.

Here is a look at what this would have been!

A	В		
Product name	varchar	not null	Product name
quantity	int	not null	quantity ordered
Total	numeric	not null	Total amount
constraint pk_Ordered_Product primary key (ord_prod_id	Hameric	Hothan	Total uniount
constraint fk_Ordered_Product_1 FOREIGN KEY (order_id) REFERENCES Order (order_id)			
constraint fk_Ordered_Product_2 FOREIGN KEY (Product_id) REFERENCES Product (Product_id)			
<u>Cart</u>			
user_id	int	notnull	
Product_id	int	notnull	
selected_quantity	int	not null	total no. of an item user selects
constraint fk_Cart_1 FOREIGN KEY (Product_id) REFERENCES Product (Product_id)			
constraint fk_Cart_2 FOREIGN KEY (user_id) REFERENCES User (user_id)			
I Se Cada de Managara de M			
Coupon			
coupon_id	int	not null	coupon unique id
code	varchar	not null	coupon alphanumeric code
description	text		discount price/special
active	bool	default true	is coupon valid or expired
value	numeric		discount value in amount
multiple	bool	default false	is eligible with other coupons
expiry_date	datetime	not null	validity check
constraint pk_Coupon primary key (coupon_id)			

Product blacklisting/Unavailability

37					
38	Product				
39	Product_id	int	not null	A_I	Product id
40	SKU	varchar	not null		Product unique number.
41	Product_name	varchar	not null		Product name
42	description	text	not null		about the Product to help user understand.
43	Product_status_id	int	not null		available OR out of stock.
44	Regular_Price	numeric	default 0.00		listed price
45	Discounted_Price	numeric	default 0.00		discounted special
46	Product Ratings	numerc			
47	isAvailable	boolean			when admin removes any products this is set to true
48	Product_Reviews	text			
49	constraint pk_Product primary key (prod_id)				

Maintaining multiple level of hierarchy in organization

<u>Role</u>				
role_id	int	not null	Auto Increament	Unique Role id
role_type	varchar	not null		Admin or user
constraint pk	_Role primary			

Non-Functional Requirement

Non Functional Requirements for website

Reliability/Availability

The system has to be online 24 hours a day, 7 days a week. There is no place for an extended downtime.

Security

There has to be clearly defined roles of the users. These roles are 'customer' and 'administrator'.

Usability

The user interface of the system has to be very user friendly. The application works best in Google Chrome.

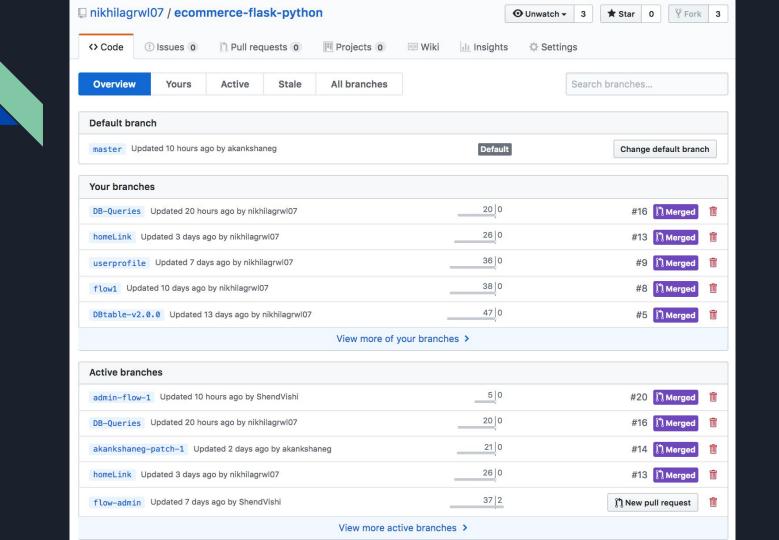
Integrity

The system must be able to protect and preserve transactions.

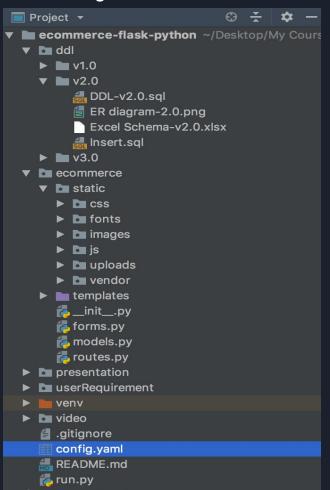
Version Control System

Git - https://github.com/nikhilagrwl07/ecommerce-flask-python

Feature Branch Technique

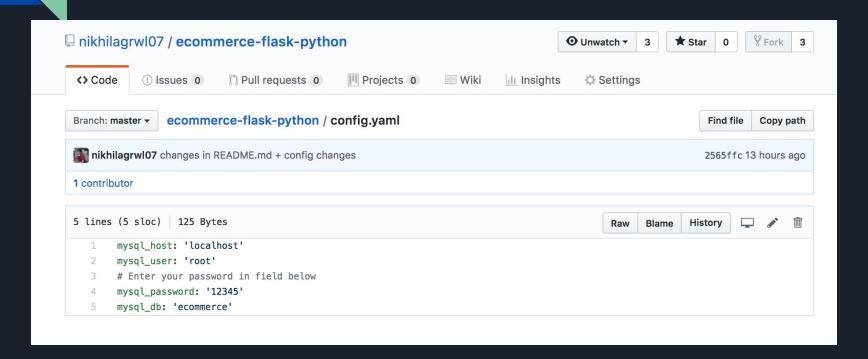


Project Structure



Configurations

config.yaml



Thank You