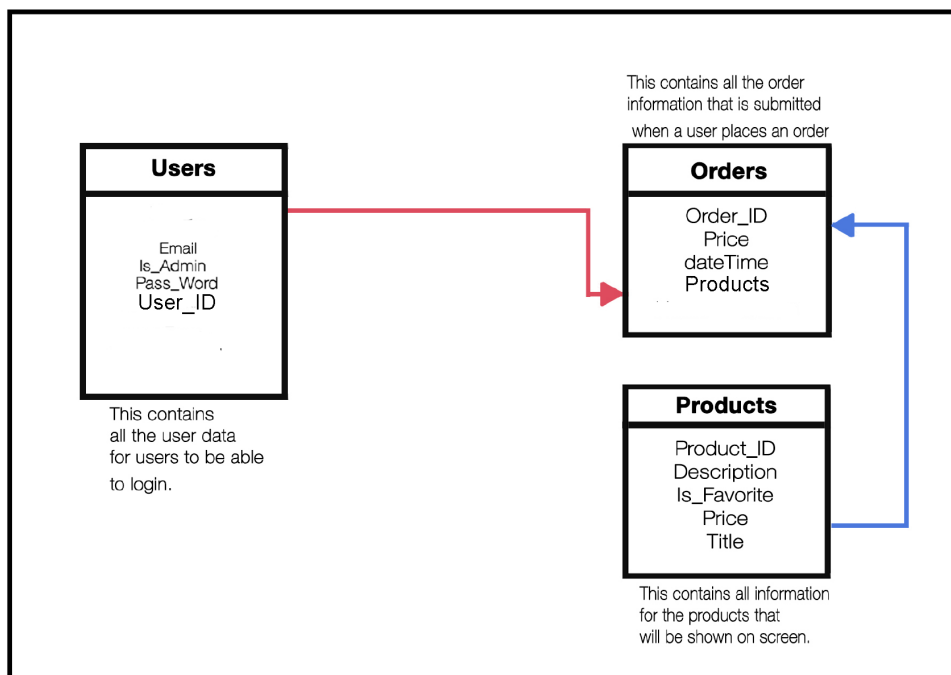


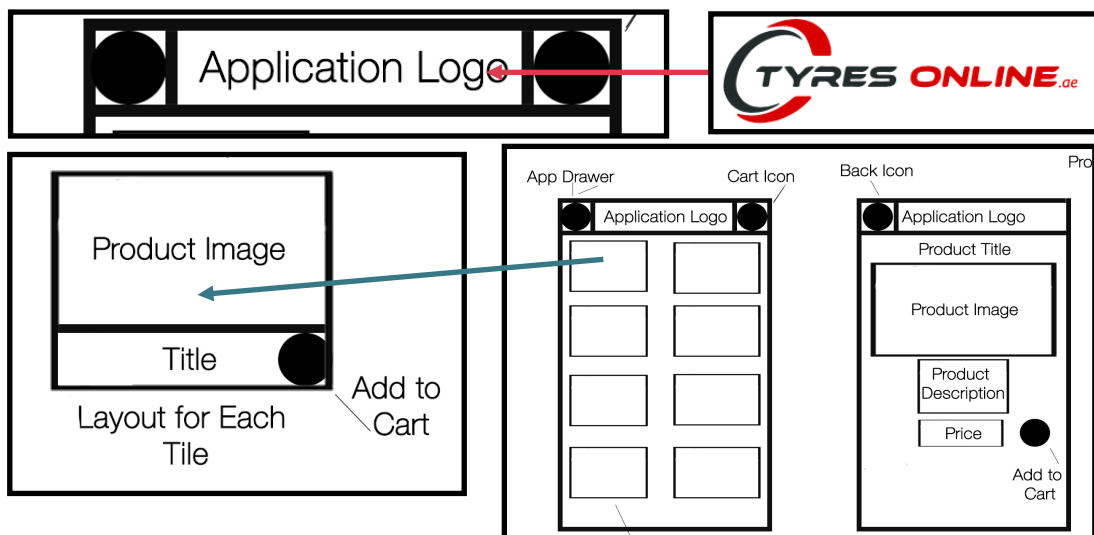
Criterion B: Design

Database Design:



The database utilizes a one-to-many relationship, this was the chosen approach as it allows for easier organization of data making it easier for the administrator to read and understand.

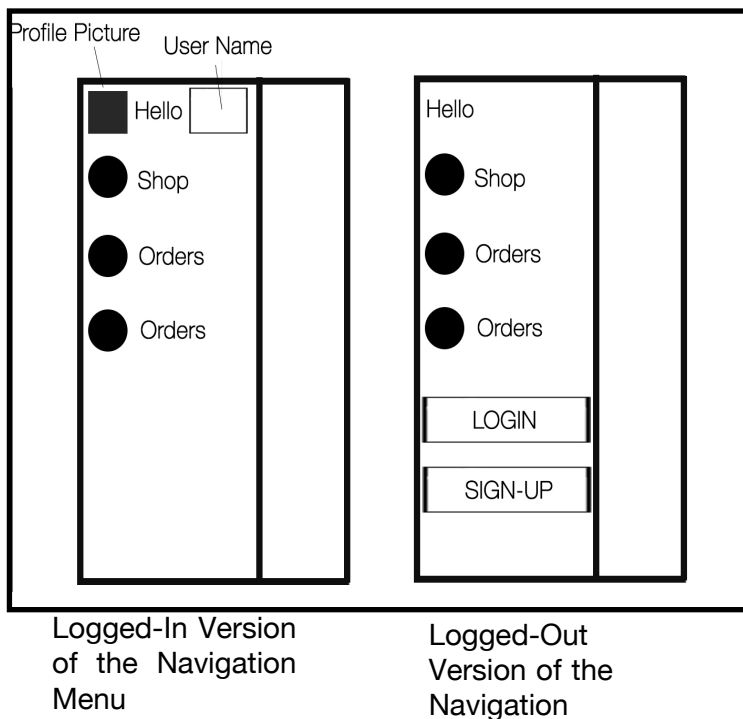
Main Screen Design: All these designs are not final. These are designs and initial planning. During the development phase a lot of these designs may change.



The 'Main Screen' is the first screen the user sees when they launch the application. On the screen you can view a 2x6 grid. Each tile will follow the layout on the left of the page. Each tile will contain a Product Image, Title for the Product and a button to add to cart.

If a tile is pressed, then the user will be transported to the product page. This page will feature a Product Title, Product Image gallery which will allow the user to interact with it by swiping to view the images. Product Description will also be featured to include shipping details or dimensions of the product. There will also be an Add to Cart button.

Navigation:

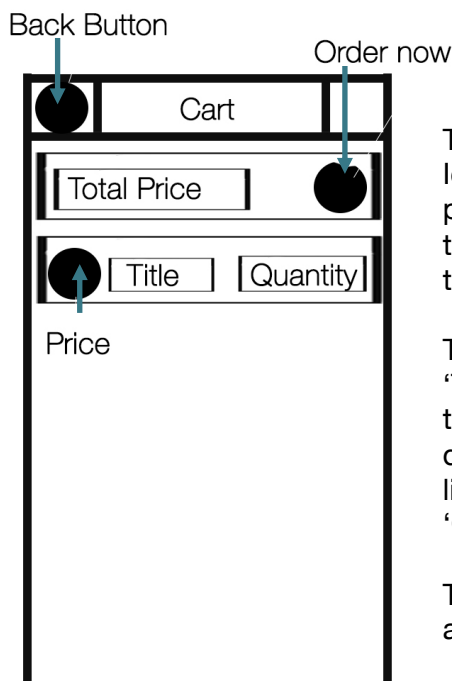


The navigation menu for the application will be controlled by an App Drawer styled menu that will be on the on left hand side of the screen. This is activated when the user presses on the App Drawer Menu.

There will be two versions of the Navigation Menu, the logged in version will showcase the person's Username next to the hello, this was done for a more personalized feel to the app. On the Logged-out version there will be no username but instead there will be a login and sign-up button on the bottom.

The options for the accessing the various screens will be by pressing on either the text or the icon.

Cart Screen:

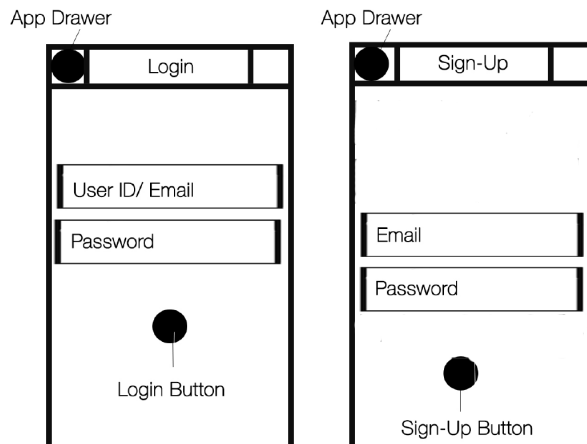


The cart screen is accessed by pressing the Cart Icon featured in the 'Main Screen' on the second page. The way to get back to the 'Main Screen' is through the back button that is on the left side of the app task bar.

The cart will feature a static container to hold 'Total Price' and the 'Order Now' button. Then there will be a list that will expand downwards depending on how many items are in the cart. This list will feature 'Price', 'Product Title' and 'Quantity'.

The 'Total Price' is calculated by using the price and the of the products and the quantity.

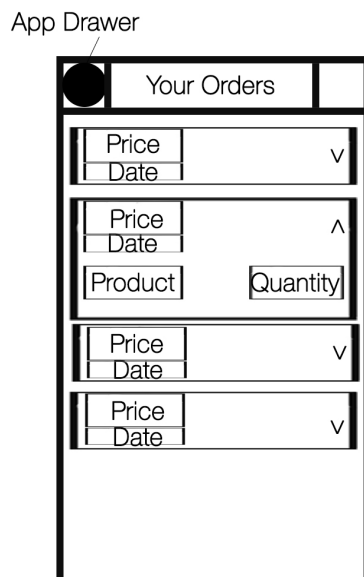
Login & Register Screen:



The Login Screen is accessed by pressing the Login Button in the 'App Drawer'. The login screen features two text fields to input username and password of the user. A login button is featured on the button, if the credentials are correct then the user will be redirected to the 'Main Screen'

The Sign-up Screen features more text fields for the user to input the required information in order to sign up. There is also a Sign-Up Button, once pressed and the information is confirmed to be accurate then the user will be redirected to the main screen.

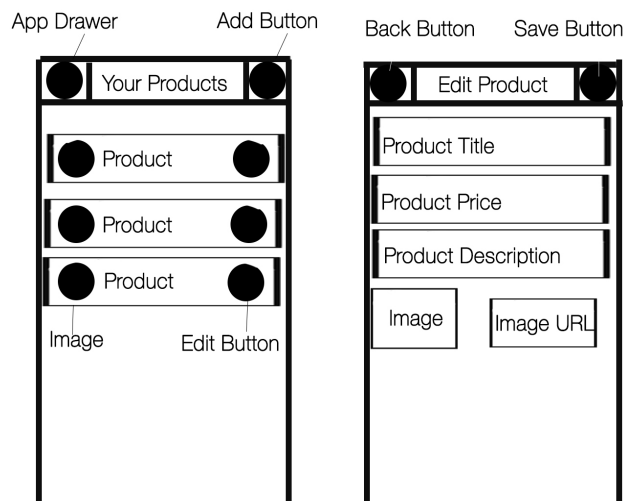
Your Orders Screen:



Your orders screen is accessed by the navigation screen by pressing the button named 'Orders'. This requires the user to be logged in, otherwise it will be locked. This screen fetches information from the database for that user and then display's the following information on screen. Price, Date Time, Quantity, Product name and total amount

The user can also expand the card to view more information.

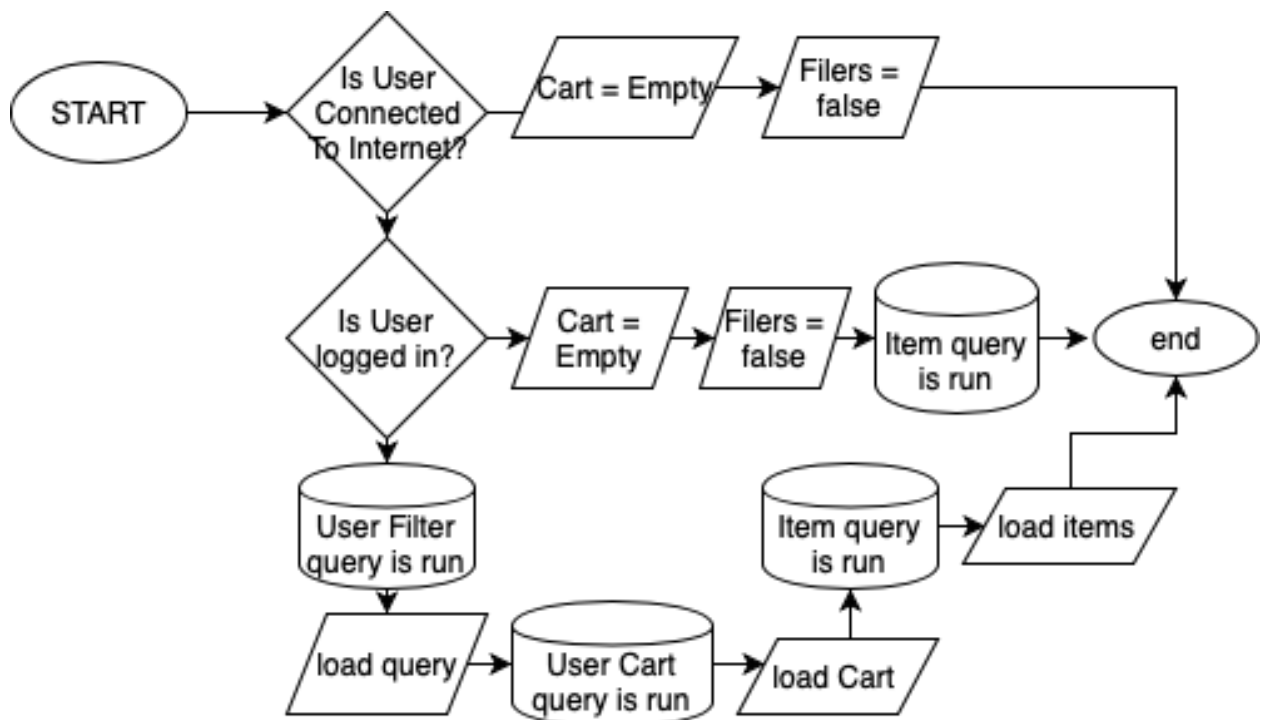
Edit Products Screen (Admin Only):



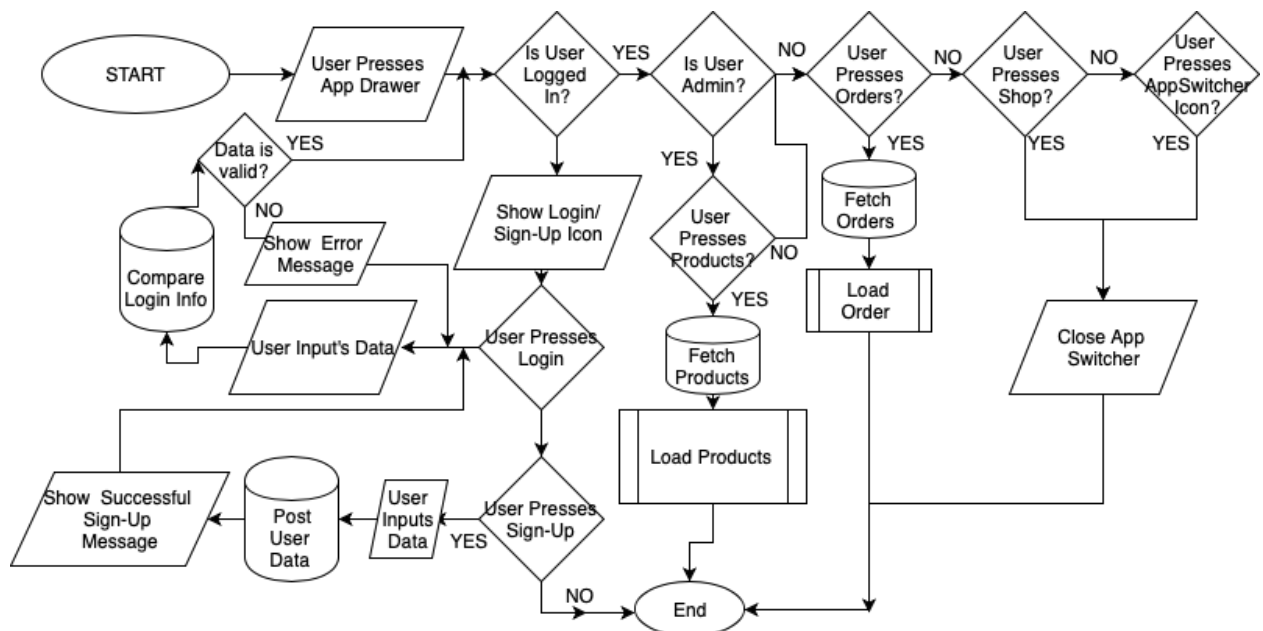
The edit products page is only available to admins. Admins can quickly alter information that is stored on the database through a GUI. Any information changed will show up on the main screen and the database.

Admin is also able to create a new product listing with the following information; product title, product price, product description and imageURL. As soon as added a preview should appear the the Image box.

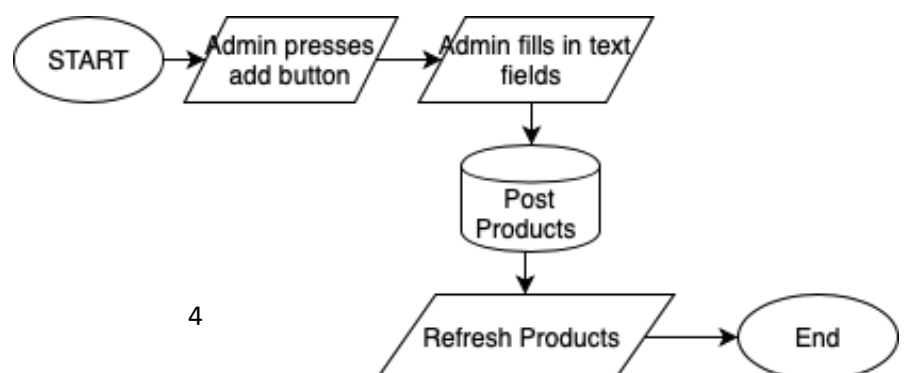
Flow Chart for Start of the app:



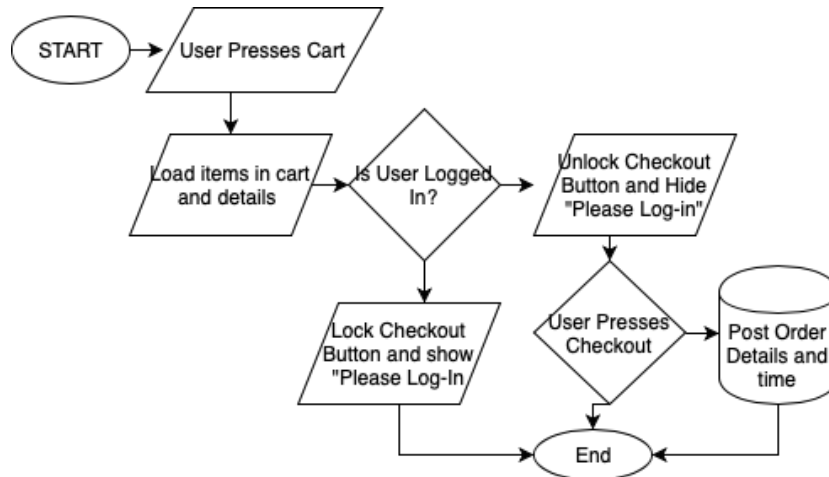
Flow Chart for App Switcher Screen:



Flow Chart for Adding Products:

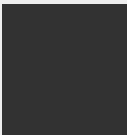


Flow Chart for Checking Out Orders:



Test Plan:

Test Case	Success Criteria	Test Data	Expected Results
Validate all input boxes	1	Enter more characters than the expected amount	Error if character count exceeded
Test Filters	2	Add products to favorites and sort by favorites	Only products that were added to favorite should appear.
Test Color Scheme and design	3	Navigate through all the screens and verify that they are all working	All screens should have the same button design and color scheme
Test Buttons	3	Press all the buttons that are included in the app	The buttons should all work and do something
Test the login screen with existing username and password and non-existing to ensure that screen is functional	4	useradmin1@gmail.com Password: Testingapp useradmin11@gmail.com Password: AppTesting	Should be Accepted Should be Rejected
Test the sign-up function, if the user sign-up is successful then the credentials should show up on the database.	4	useradmin11@gmail.com Password: AppTesting useradmin11@gmail.com	Accepted to sign-up at first Normal Error that user is signed up

		Password: AppTesting	
User can place an order successful	5,8	Attempt to add few items to cart and check out.	Order shows up in the database.
User's Name should show up on the top of the app switcher	7	Go into the app switcher while logged in Go into the app switcher while logged out	Hello 'First Name' Hello Customer,
Users should be able to receive notifications	6,8	Attempt to send out a notification to users	User receives the notification and if pressed it opens the app.
Admin's should be able to edit products	10	Attempt to edit the price of a product	Product pricing should change on both the main screen and the database
Admin should be able to add a new product	10	Attempt to add a new product	Product should appear on both the database and the main screen
Only URL's should be accepted on the ImageURL box	11	Attempt adding: www.imageurl.com	Should show the error "invalid URL"
A preview of the image should show on the screen when url is added	12	Add the following url: https://bit.ly/35AZsHR	Preview of the following image should show up 

Data Dictionary for Database:

Element	Description	Data Type	Character Length	Required
Order Number	A unique identification alphanumeric for an order	String	19 characters	Yes
Amount	The total amount for the order placed	Float	23 digits	Yes

DateTime	Date and the time the order was placed	DateTime	14 digits	Yes
Quantity	Quantity purchased per product	Int	Unlimited	Yes
Price	Price for individual product	Float	Unlimited	Yes
Title	Title for the products purchased	String	16 characters	Yes
Description	Description for the product purchased	String	100 characters	Yes
CustomerID	A unique identification alphanumeric for a Customer	String	19 characters	Yes
Username	Username of the customer	String	10 characters	Yes
Email	Email of the customer	String	20 characters	Yes
Password	Password attached to the username	String	9 characters	Yes
Address	Address Attached to the username	String	30 characters	Yes
First Name	First name of the customer attached to the username	String	20 characters	Yes
Last Name	Last name of the customer attached to the username	String	20 characters	Yes
Country	Country of the customer attached to the username	String	20 characters	Yes

UML Diagram: This is just a basic UML diagram based on the client's requirements, changes may be made during development.

