

THE OPEN UNIVERSITY OF SRILANKA
EEI4369 – MOBILE APPLICATION DEVELOPMENT FOR
ANDROID
DESIGN PROJECT FINAL REPORT
BOTTLED WATER DELIVERY APP - AQUA DELIVERY



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Contents

Project Overview:	3
Overview and Purpose	3
Key Features	3
Problems to solve.	3
Introduction:	4
Background and Context:	4
Motivation:	4
Relevance in the Industry:	4
Objectives:	5
objectives of the Android application	5
Functionalities	6
Methodology:	6
Development Tools:	6
Android Support Libraries:	7
System Design:	7
Features and Functionality:	10
Implementation:	11
Testing and Evaluation:	20
User Interface and User Experience:	21
Conclusion:	27
Key Findings and Outcomes:	27

Project Overview:

Overview and Purpose

Aqua Delivery is an Android application that solves the problem of inconvenient and burdensome water bottle shopping by offering a user-friendly platform for doorstep delivery. Our purpose is to simplify access to clean and pure drinking water, providing a seamless and hassle-free solution for users to prioritize hydration conveniently.

Key Features

- **Easy Ordering:** With just a few taps, users can browse through our wide selection of water bottle options, including different sizes and brands, and place their orders effortlessly.
- **Fast and Reliable Delivery:** We prioritize timely delivery, ensuring that customers receive their water bottles promptly. Our dedicated delivery personnel handle orders with care, ensuring that the bottles reach customers in perfect condition.
- **Customizable Subscriptions:** For users who prefer regular deliveries, we offer customizable subscription plans. Customers can set their preferred frequency and quantity of water bottle deliveries, ensuring they never run out of their hydration essentials.
- **Secure Payment Options:** Our application provides secure and seamless payment options, allowing customers to complete their transactions with ease. We prioritize the privacy and security of our users' financial information.
- **Order Tracking:** Users can track their orders in real-time, gaining visibility into the delivery process. This feature allows customers to plan and prepare for the arrival of their water bottles.

Problems to solve.

Aqua Delivery addresses the problem of the inconvenience and hassle associated with purchasing and carrying heavy water bottles from stores. By providing a user-friendly application for water bottle delivery, it eliminates the need for physical shopping and eases the burden of transporting water bottles. Aqua Delivery aims to solve the challenge of accessing clean and pure drinking water conveniently, ensuring that users can prioritize hydration without the usual difficulties involved in traditional water bottle procurement.

Introduction:

Background and Context:

The background of the Aqua Delivery project stems from the growing need for convenient access to clean drinking water in today's fast-paced world. With busy schedules and the desire for a healthier lifestyle, people often find it challenging to maintain hydration throughout the day. The idea for Aqua Delivery arose as a response to this problem, aiming to provide a seamless solution for water bottle delivery.

Motivation:

The motivation behind choosing the Aqua Delivery application idea was to address the inconvenience associated with purchasing and carrying heavy water bottles. Traditional methods of obtaining water bottles require time, effort, and physical exertion, which can be impractical for many individuals. Recognizing the need for a more convenient approach, our team was inspired to create an application that simplifies the process and brings water bottles directly to customers' doorsteps.

Relevance in the Industry:

The relevance of Aqua Delivery in the industry lies in its ability to bridge the gap between the increasing demand for convenient services and the essential need for proper hydration. With advancements in technology and the rise of on-demand services, consumers now expect seamless experiences that fit into their busy lifestyles. Aqua Delivery aligns with this trend by offering a user-friendly application that caters to the specific need for clean and pure drinking water, delivered reliably and conveniently.

Additionally, the industry's focus on sustainability and eco-consciousness further amplifies the relevance of Aqua Delivery. By promoting the use of reusable water bottles and eco-friendly materials, the application aligns with the growing awareness and preference for sustainable practices.

Overall, Aqua Delivery's background and motivation, along with its relevance in the industry, position it as a valuable solution that addresses the need for convenient access to clean drinking water while keeping up with the evolving demands of modern consumers.

Objectives:

objectives of the Android application

Simplify Ordering Process: The primary objective of the Aqua Delivery application is to provide users with a simplified and user-friendly ordering process. Users should be able to browse through a wide selection of water bottle options, select their preferred brands and sizes, and place orders seamlessly.

Ensure Reliable and Timely Delivery: The application aims to ensure that water bottle deliveries are reliable and arrive at customers' doorsteps in a timely manner. This involves implementing efficient delivery management systems, tracking mechanisms, and working closely with dedicated delivery personnel to optimize the delivery process.

Offer Customizable Subscription Plans: Aqua Delivery seeks to provide users with the option to customize their subscription plans based on their unique preferences and needs. Users should be able to set their desired frequency and quantity of water bottle deliveries, ensuring they have a constant supply of clean drinking water without the need for repeated ordering.

Provide Secure and Seamless Payment Options: The application aims to offer secure and seamless payment options for customers. Users should be able to complete transactions using various payment methods, ensuring their financial information is protected throughout the process.

Implement Order Tracking: Aqua Delivery strives to provide users with real-time order tracking capabilities. Users should be able to track the status of their orders, including the estimated delivery time, allowing them to plan and prepare accordingly.

Personalize Recommendations: The application aims to leverage intelligent algorithms to provide personalized recommendations to users. By analysing their preferences and previous orders, Aqua Delivery can suggest water bottle options that align with their tastes, ensuring a personalized and tailored experience.

Promote Sustainability: Aqua Delivery seeks to promote sustainability by offering eco-friendly and reusable water bottle options. The application aims to encourage users to adopt sustainable practices and contribute to environmental conservation.

Desired outcomes

Convenience: The Aqua Delivery Android application aims to provide users with a convenient solution for accessing clean drinking water. The desired

outcome is to eliminate the need for physical water bottle shopping, saving users time and effort.

Reliability: The application aims to ensure reliable and consistent delivery of water bottles to customers' doorsteps. The desired outcome is to establish a reputation for on-time deliveries, enhancing customer trust and satisfaction.

Personalization: Aqua Delivery seeks to provide users with personalized experiences. The desired outcome is to offer tailored recommendations based on users' preferences, improving customer satisfaction and engagement.

Hydration Support: The application aims to support users in maintaining proper hydration throughout the day. The desired outcome is to promote a healthier lifestyle by ensuring easy access to clean and pure drinking water.

Functionalities

User Registration and Authentication: The application allows users to create accounts and log in securely to access its features and functionalities.

Water Bottle catalogue: Aqua Delivery provides a comprehensive catalogue of water bottle options, including various brands, sizes, and types, allowing users to browse and select their preferred choices.

Easy Ordering: Users can place orders for water bottles seamlessly through the application, specifying their desired quantity, brand, and size.

Secure Payment Processing: The application ensures secure and seamless payment processing, providing users with multiple payment options to complete their transactions.

Methodology:

The Aqua Delivery Android application was developed using a modern and robust approach, leveraging various development tools, programming languages, frameworks, and libraries to ensure a high-quality and efficient development process. The following components were utilized

Development Tools:

Android Studio: The official integrated development environment (IDE) for Android app development, providing a comprehensive set of tools for coding, debugging, and testing.

Gradle: The build automation system used to manage dependencies and build the application.

Programming Language: The Aqua Delivery Android application is developed using the Java programming language. Java is a widely-used language for Android app development, known for its reliability and compatibility with the Android platform.

Android Support Libraries:

'com.android.support:appcompat-v7:28.0.0': Android AppCompat support library for maintaining compatibility across different Android versions.

'com.android.support.constraint:constraint-layout:2.0.4': ConstraintLayout library for building flexible and responsive user interfaces.

'androidx.cardview:cardview:1.0.0': CardView library for creating card-based UI components.

AndroidX Libraries:

'androidx.appcompat:appcompat:1.6.1': AndroidX AppCompat library for compatibility and support with newer Android versions.

'com.google.android.material:material:1.8.0': Material Components library for implementing Material Design elements and styles.

Google Play Services:

'com.google.android.gms:play-services-maps:18.1.0': Google Maps API library for integrating map functionality into the application.

'com.google.android.gms:play-services-location:21.0.1': Google Play Services Location library for accessing location-based services.

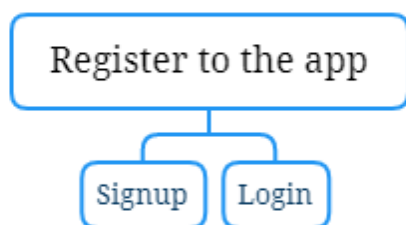
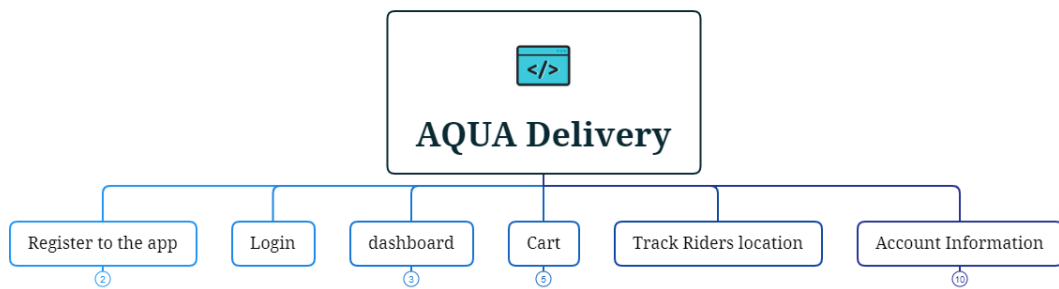
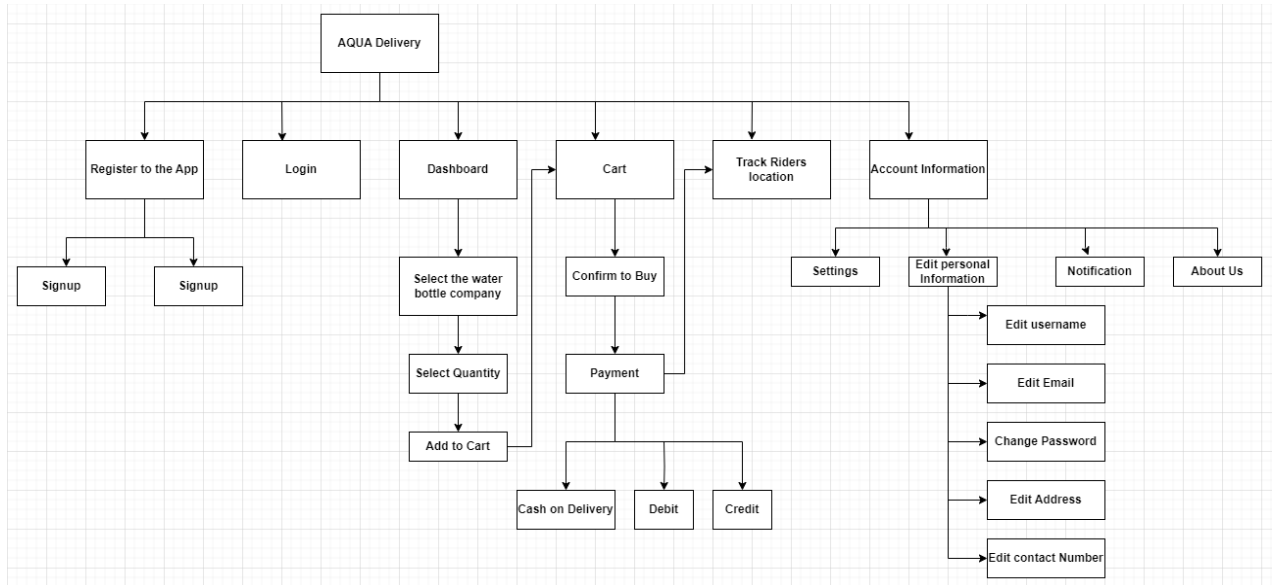
Testing:

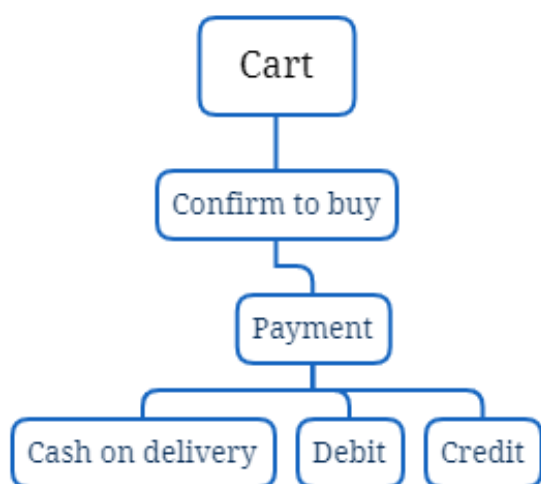
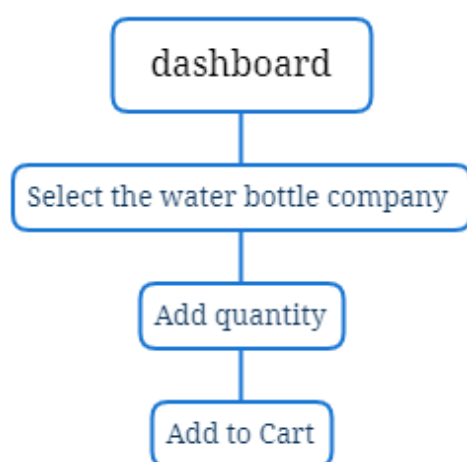
'junit:junit:4.13.2': JUnit testing framework for unit testing.

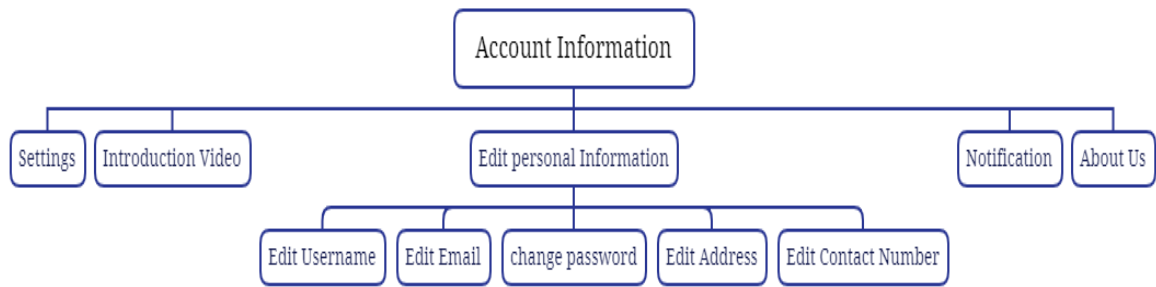
'com.android.support.test:runner:1.0.2': Android Support Test Runner for running instrumented tests.

'com.android.support.test.espresso:espresso-core:3.0.2': Espresso library for UI testing.

System Design:







Features and Functionality:

User Registration and Authentication:

Users can create accounts and log in securely to access the application's features.

This feature ensures personalized experiences and allows users to manage their orders and preferences.

Water Bottle Catalog:

The application provides a comprehensive catalog of water bottle options, including various brands, sizes, and types.

Users can browse through the catalog, view product details, and make informed choices.

This feature ensures a wide selection of water bottle options, catering to different user preferences.

Easy Ordering:

Users can easily place orders for water bottles within the application.

They can select their desired quantity, brand, and size and add items to their cart.

This feature simplifies the ordering process, reducing the time and effort required for purchasing water bottles.

Secure Payment Processing:

The application supports secure and seamless payment processing.

Users can complete transactions using various payment methods, ensuring their financial information is protected.

This feature instills trust and confidence in users, facilitating convenient and secure payments.

Implementation:

Implemented Source code.

Splash Screen

Java Code

```
package com.zahra.aquadeliv;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.os.Handler;
import android.view.WindowManager;

public class SplashScreen extends AppCompatActivity {

    public static int SPLASH_TIMER = 3000;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_splash_screen);

        // hide the action bar and set the window to full screen
        getSupportActionBar().hide();
        getWindow().addFlags(WindowManager.LayoutParams.FLAG_FULLSCREEN);

        new Handler().postDelayed(new Runnable() {
            @Override
            public void run() {
                Intent intent = new Intent(SplashScreen.this,
MainActivity.class);
                startActivity(intent);
                finish();
            }
        }, SPLASH_TIMER);
    }
}
```

XML Code

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
```

```

        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:background="#EDEDDEF"
        tools:context=".MainActivity">

        <ImageView
            android:layout_width="338dp"
            android:layout_height="339dp"
            android:src="@drawable/logo"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent"
            app:layout_constraintVertical_bias="0.497"
            tools:ignore="MissingConstraints" />

    </androidx.constraintlayout.widget.ConstraintLayout>

```

Cart Activity Source Code

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#EDEDDEF"
    tools:context=".Aquafresh$MainCart">

    <androidx.cardview.widget.CardView
        android:layout_width="370dp"
        android:id="@+id/firstCardView"
        android:layout_height="320dp"
        app:cardCornerRadius="10dp"
        app:cardElevation="10dp"
        android:layout_centerHorizontal="true">

        <RelativeLayout
            android:layout_width="match_parent"
            android:layout_marginTop="10dp"
            android:layout_height="match_parent">

            <ImageView
                android:id="@+id/imageViewInfo"
                android:layout_width="350dp"
                android:layout_height="84dp"
                android:src="@drawable/image1" />

            <TextView
                android:id="@+id/drinkNameinInfo"
                android:layout_width="100dp"
                android:layout_height="wrap_content"
                android:layout_alignParentBottom="true"
                android:layout_marginStart="50dp"
                android:layout_marginTop="150dp"
                android:layout_marginEnd="10dp"
                android:layout_marginBottom="21dp"
                android:text="100ml"

```

```

        android:textColor="#040C47"
        android:textSize="30sp"
        android:textStyle="bold" />

        <TextView
            android:id="@+id/coffeePrice"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignRight="@+id/drinkNameinInfo"
            android:layout_alignParentRight="true"
            android:layout_alignParentBottom="true"
            android:layout_marginTop="160dp"
            android:layout_marginRight="70dp"
            android:layout_marginBottom="28dp"
            android:text="RS. 200"
            android:textColor="#040C47"
            android:textSize="20sp"
            android:textStyle="bold" />

        <ImageView
            android:id="@+id/imageView3"
            android:layout_width="174dp"
            android:layout_height="113dp"
            android:layout_alignParentEnd="true"
            android:layout_alignParentBottom="true"
            android:layout_marginEnd="94dp"
            android:layout_marginBottom="84dp"
            app:srcCompat="@drawable/water1" />

    </RelativeLayout>

</androidx.cardview.widget.CardView>

<androidx.cardview.widget.CardView
    android:id="@+id/secondCardView"
    android:layout_width="match_parent"
    android:layout_height="386dp"
    android:layout_below="@+id/firstCardView"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="20dp"
    app:cardCornerRadius="10dp"
    app:cardElevation="10dp">

    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="281dp"
        android:layout_marginTop="10dp">

        <ImageButton
            android:id="@+id/addquantity"
            android:layout_width="44dp"
            android:layout_height="42dp"
            android:layout_marginLeft="130dp"
            android:background="@drawable/minus" />

        <TextView
            android:id="@+id/quantity"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"

```

```

        android:layout_marginLeft="20dp"
        android:layout_marginRight="20dp"
        android:layout_toRightOf="@+id/addquantity"
        android:text="0"
        android:textSize="28sp"
        android:textStyle="bold" />

<ImageButton
    android:id="@+id/subquantity"
    android:layout_width="40dp"
    android:layout_height="42dp"
    android:layout_marginBottom="10dp"
    android:layout_toRightOf="@+id/quantity"
    android:background="@drawable/add" />

<RadioGroup
    android:id="@+id/radioGroup"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/subquantity"
    android:layout_centerHorizontal="true"
    android:orientation="horizontal">

    <RadioButton
        android:id="@+id/coldRadioButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Iced" />

</RadioGroup>

<TextView
    android:layout_width="130dp"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginStart="25dp"
    android:layout_marginEnd="256dp"
    android:layout_marginBottom="176dp"
    android:text="Description"
    android:textColor="#474040"
    android:textSize="20dp"
    android:textStyle="bold" />

<TextView
    android:id="@+id/descriptioninfo"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_marginStart="10dp"
    android:layout_marginTop="10dp"
    android:layout_marginEnd="10dp"
    android:layout_marginBottom="76dp"

    android:text="A 250ml water bottle is a small-sized

```

container specifically designed to hold 250 milliliters (8.45 fluid ounces) of water or other beverages. It is typically made of plastic, although other materials like stainless steel or glass may also be used."

```
        android:textAllCaps="false"
        android:textColor="@color/black"
        android:textSize="15sp"
        android:textStyle="bold" />
```

```
</RelativeLayout>
```

```
<Button
```

```
    android:id="@+id/addtocart"
    android:layout_width="267dp"
    android:layout_height="59dp"
    android:layout_marginLeft="70dp"
    android:layout_marginTop="300dp"
    android:layout_marginRight="30dp"
    android:layout_marginBottom="10dp"
    android:textSize="18dp"
    android:background="@drawable/bottom_background"
    android:text="Add to cart"
    android:textColor="@android:color/white"
    android:textStyle="bold" />
```

```
</androidx.cardview.widget.CardView>
```

```
</RelativeLayout>
```

Introduction Code Source Code

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:background="#EDEDEF"
    android:layout_height="match_parent"
    tools:context=".IntroVideo">

    <ImageView
        android:id="@+id/BackButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.041"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.022"
        app:srcCompat="@drawable/baseline_arrow_back_24" />
```

```

<TextView
    android:id="@+id/textView3"
    android:layout_width="112dp"
    android:layout_height="22dp"
    android:layout_marginStart="14dp"
    android:layout_marginTop="16dp"
    android:layout_marginEnd="283dp"
    android:layout_marginBottom="26dp"
    android:text="Introduction Video"
    android:textColor="@color/black"
    android:textSize="18dp"
    android:textStyle="bold"
    app:layout_constraintHorizontal_bias="1.0"
    app:layout_constraintStart_toEndOf="@+id/BackButton"
    app:layout_constraintTop_toTopOf="parent" />

<VideoView
    android:id="@+id/videoView"
    android:layout_width="375dp"
    android:layout_height="626dp"
    android:layout_marginTop="52dp"
    android:layout_marginBottom="24dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.444"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="@+id/textView3" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Account Activity Source Code

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:app="http://schemas.android.com/apk/res-auto">
    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:background="#EDEDEF"
        tools:context=".AccountActivity">

        <ScrollView
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent">

            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="wrap_content"

```



```

        android:orientation="vertical">

        <androidx.constraintlayout.widget.ConstraintLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent">

            <ImageView
                android:id="@+id/imageView2"
                android:layout_width="173dp"
                android:layout_height="177dp"
                android:layout_marginTop="4dp"
                app:layout_constraintEnd_toEndOf="parent"
                app:layout_constraintStart_toStartOf="parent"
                app:layout_constraintTop_toTopOf="parent"
                app:srcCompat="@drawable/profile" />

            <TextView
                android:id="@+id/textView"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_marginTop="16dp"
                android:text="Lion Fischer"
                android:textSize="25sp"
                android:textStyle="bold"
                app:layout_constraintEnd_toEndOf="@+id/imageView2"

app:layout_constraintStart_toStartOf="@+id/imageView2"

app:layout_constraintTop_toBottomOf="@+id/imageView2" />

            <TextView
                android:id="@+id/textView2"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="lionfischer@gmail.com"
                android:textSize="20sp"
                app:layout_constraintEnd_toEndOf="@+id/textView"

app:layout_constraintStart_toStartOf="@+id/textView"
                app:layout_constraintTop_toBottomOf="@+id/textView"
            />

            <LinearLayout
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:orientation="vertical"
                app:layout_constraintBottom_toBottomOf="parent"
                app:layout_constraintEnd_toEndOf="parent"
                app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/textView2">

                <androidx.appcompat.widget.AppCompatButton
                    android:id="@+id/button"
                    style="@android:style/Widget.Button"
                    android:layout_width="match_parent"
                    android:layout_height="60dp"
                    android:layout_marginStart="32dp"
                    android:layout_marginTop="10dp"
                    android:layout_marginEnd="32dp"
                    android:layout_marginBottom="10dp"

```

```

        android:background="@drawable/btn_background_1"
android:drawableStart="@drawable/baseline_settings_24"
        android:drawablePadding="20dp"
        android:paddingStart="20dp"
        android:text="Account Settings"
        android:textAlignment="viewStart"
        android:textSize="18sp"
        android:textStyle="bold" />

<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/button2"
    style="@android:style/Widget.Button"
    android:layout_width="match_parent"
    android:layout_height="60dp"
    android:layout_marginStart="32dp"
    android:layout_marginTop="10dp"
    android:layout_marginEnd="32dp"
    android:layout_marginBottom="10dp"
    android:background="@drawable/btn_background_1"

android:drawableStart="@drawable/baseline_video_library_24"
    android:drawablePadding="20dp"
    android:paddingStart="20dp"
    android:text="Company Introduction Video"
    android:textAlignment="viewStart"
    android:textSize="18sp"
    android:textStyle="bold" />

<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/button3"
    style="@android:style/Widget.Button"
    android:layout_width="match_parent"
    android:layout_height="60dp"
    android:layout_marginStart="32dp"
    android:layout_marginTop="10dp"
    android:layout_marginEnd="32dp"
    android:layout_marginBottom="10dp"
    android:background="@drawable/btn_background_1"

android:drawableStart="@drawable/baseline_person_24"
    android:drawablePadding="20dp"
    android:paddingStart="20dp"
    android:text="Persoanl Information"
    android:textAlignment="viewStart"
    android:textSize="18sp"
    android:textStyle="bold" />

<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/button4"
    style="@android:style/Widget.Button"
    android:layout_width="match_parent"
    android:layout_height="60dp"
    android:layout_marginStart="32dp"
    android:layout_marginTop="10dp"
    android:layout_marginEnd="32dp"
    android:layout_marginBottom="10dp"
    android:background="@drawable/btn_background_1"

android:drawableStart="@drawable/baseline_circle_notifications_24"
    android:drawablePadding="20dp"

```

```

        android:paddingStart="20dp"
        android:text="Notification"
        android:textAlignment="viewStart"
        android:textSize="18sp"
        android:textStyle="bold" />

        <androidx.appcompat.widget.AppCompatButton
            android:id="@+id/button5"
            style="@android:style/Widget.Button"
            android:layout_width="match_parent"
            android:layout_height="60dp"
            android:layout_marginStart="32dp"
            android:layout_marginTop="10dp"
            android:layout_marginEnd="32dp"
            android:layout_marginBottom="10dp"
            android:background="@drawable/btn_background_1"
            android:drawableStart="@drawable/baseline_info_24"
            android:drawablePadding="20dp"
            android:paddingStart="20dp"
            android:text="About us"
            android:textAlignment="viewStart"
            android:textSize="18sp"
            android:textStyle="bold" />

        <androidx.appcompat.widget.AppCompatButton
            android:id="@+id/button6"
            style="@android:style/Widget.Button"
            android:layout_width="match_parent"
            android:layout_height="60dp"
            android:layout_marginStart="32dp"
            android:layout_marginTop="10dp"
            android:layout_marginEnd="32dp"
            android:layout_marginBottom="10dp"
            android:background="@drawable/btn_background_1"
            android:drawableStart="@drawable/baseline_logout_24"
            android:drawablePadding="20dp"
            android:paddingStart="20dp"
            android:text="Logout"
            android:textAlignment="viewStart"
            android:textSize="18sp"
            android:textStyle="bold" />

    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
</LinearLayout>
</ScrollView>
</androidx.constraintlayout.widget.ConstraintLayout>

<com.google.android.material.bottomnavigation.BottomNavigationView
    android:id="@+id/bottomNavigation"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_marginStart="20dp"
    android:layout_marginEnd="20dp"
    android:layout_marginBottom="14dp"
    android:background="@drawable/bottom_background"
    android:elevation="2dp"
    app:itemIconSize="30dp"

```

```
app:itemIconTint="@drawable/item_selector"
app:itemRippleColor="@android:color/transparent"
app:labelVisibilityMode="unlabeled"
app:menu="@menu/bottom_menu" />

</RelativeLayout>
```

Testing and Evaluation:

Test Case ID: TC001

Test Description: User Registration

Test Steps:

Launch the Aqua Delivery application.

Navigate to the registration screen.

Enter valid user details in the registration form (e.g., name, email, password).

Click on the "Register" button.

Test Input: Valid user details (e.g., Name: John Doe, Email: johndoe@example.com, Password: 123456)

Expected Result: The user should be successfully registered and redirected to the login screen.

Actual Result: User registration is successful, and the login screen is displayed.

Status: Passed

Test Case ID: TC002

Test Description: Login Functionality

Test Steps:

Launch the Aqua Delivery application.

Navigate to the login screen.

Enter valid credentials (email and password) of a registered user.

Click on the "Login" button.

Test Input: Valid login credentials (e.g., Email: johndoe@example.com, Password: 123456)

Expected Result: The user should be successfully logged in and redirected to the home screen.

Actual Result: User login is successful, and the home screen is displayed.

Status: Passed

Unit Testing: Unit tests were conducted to verify the correctness of individual components and classes within the application. This involved writing test cases for critical functions and modules to ensure they perform as expected.

Integration Testing: Integration testing was performed to validate the interaction and compatibility between different components of the application. This helped identify any issues that may arise from the integration of various modules and ensure smooth functionality.

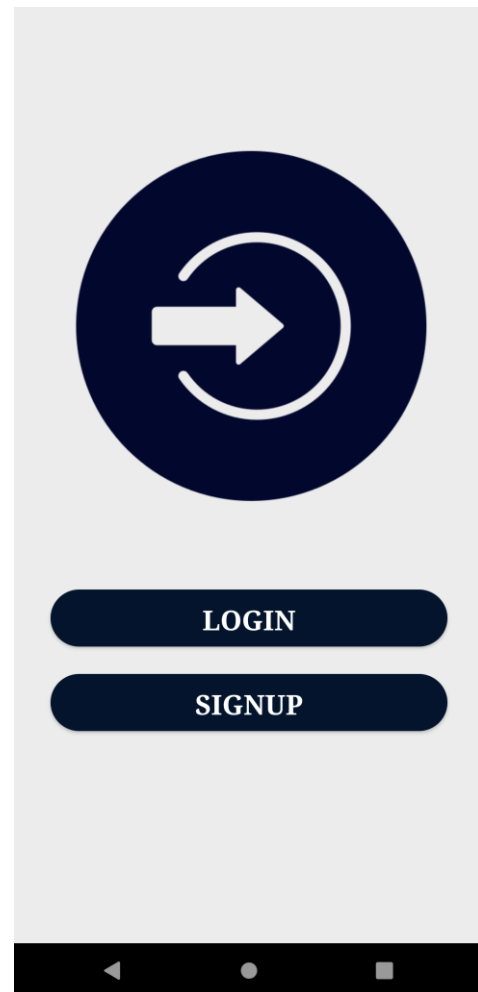
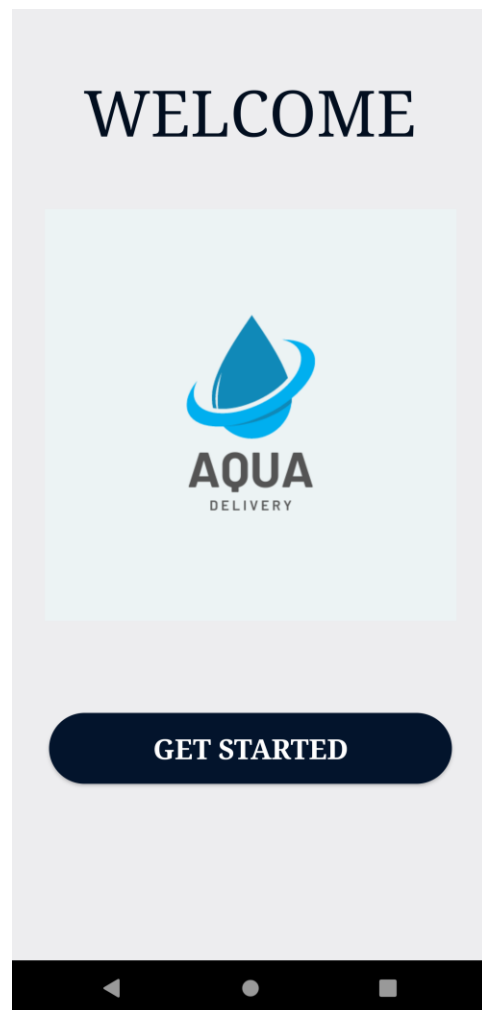
User Interface (UI) Testing: UI testing was carried out to evaluate the application's user interface and ensure that it provides a seamless and intuitive experience. This involved testing different screens, navigation flows, and user interactions to identify any usability issues.

Functional Testing: Functional testing was conducted to assess whether the application's features and functionalities are working correctly as intended. This involved executing test cases that covered different scenarios and user actions to validate the expected behavior of the application.

Performance Testing: Performance testing was performed to assess the application's responsiveness, resource usage, and scalability. This involved simulating various load conditions and stress testing the application to identify any performance bottlenecks or issues.

User Interface and User Experience:

The user interface (UI) and user experience (UX) of the Aqua Delivery play a vital role in ensuring a seamless and engaging experience for users. This section outlines the design principles, considerations, and features that contribute to an intuitive and visually appealing UI/UX.



LOGIN



LOGIN



SignUp

AQUA DELIVERY



American
Water

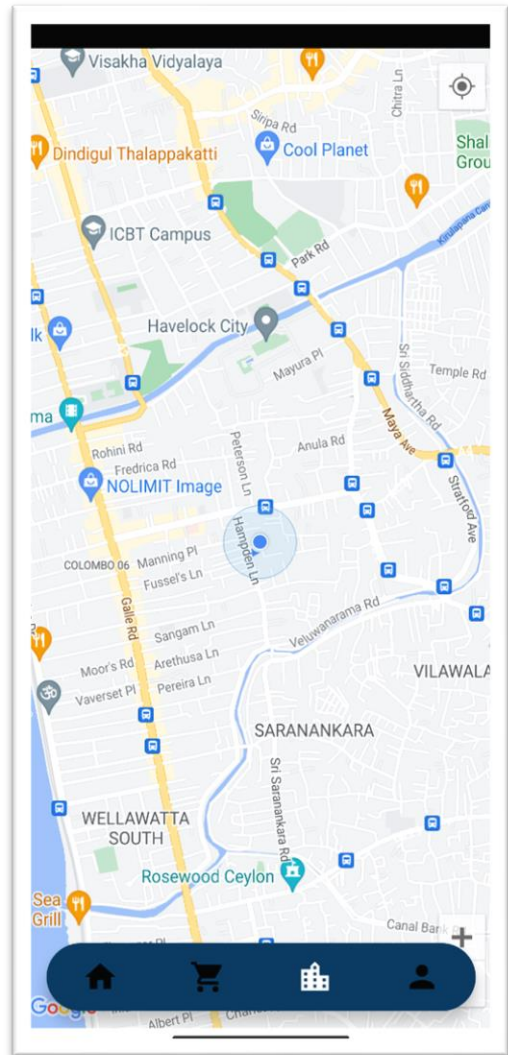
SPEED
Water

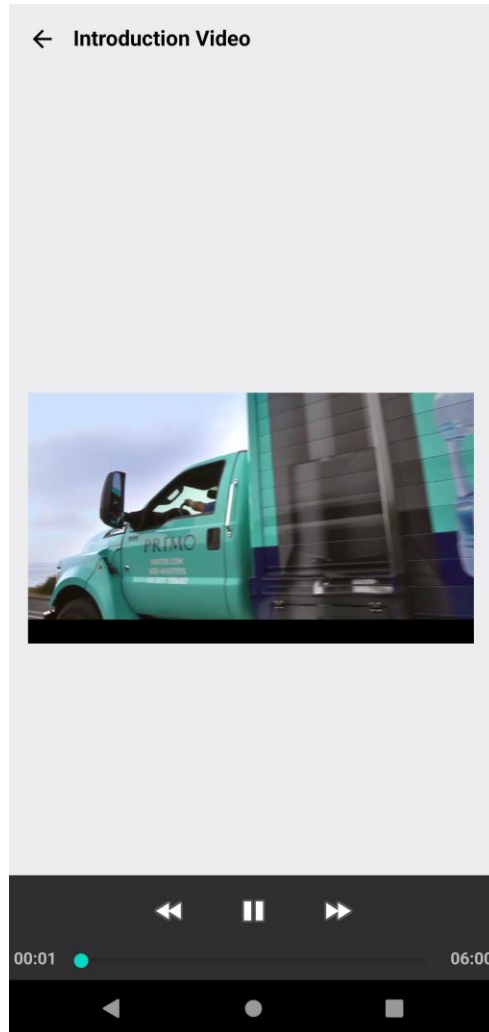
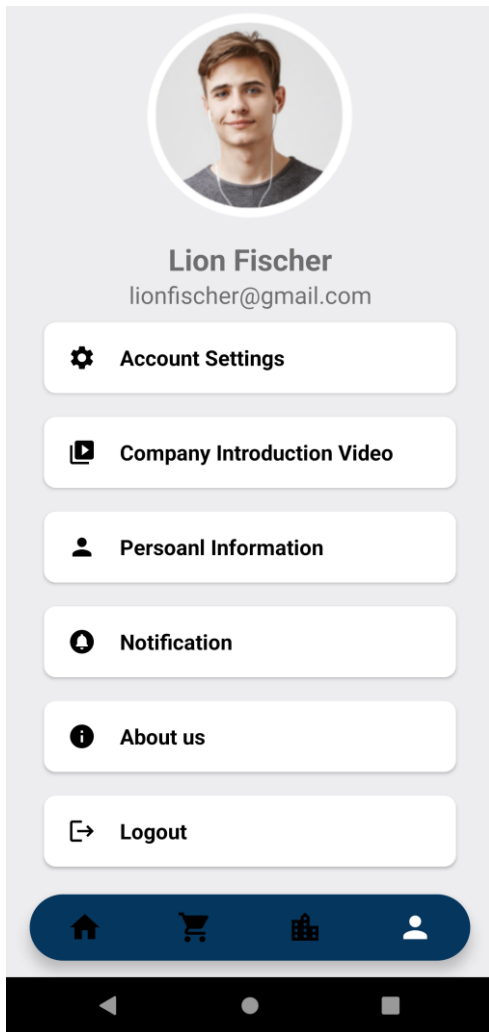
AQUAFINA

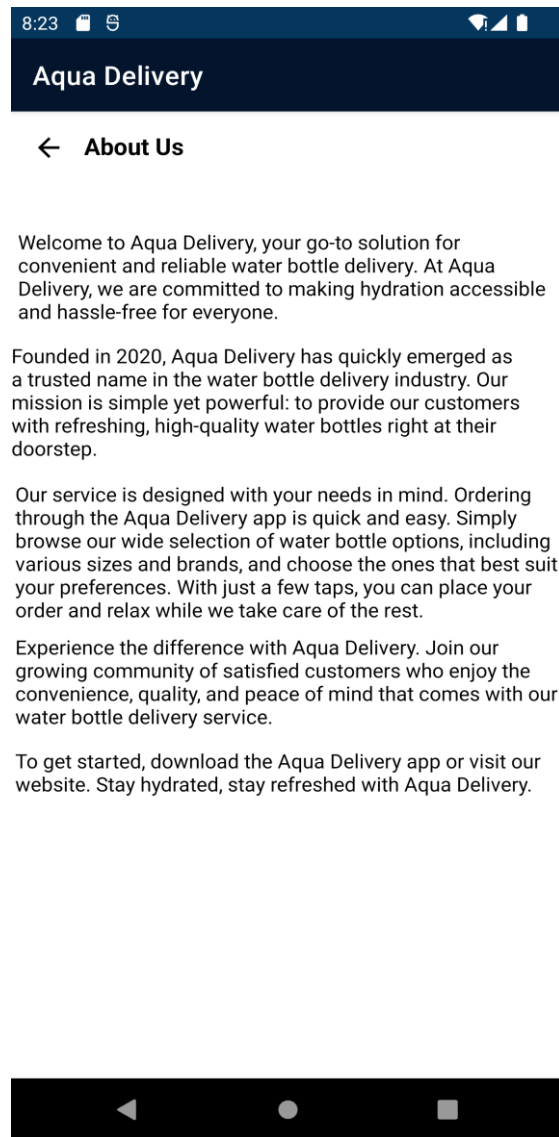
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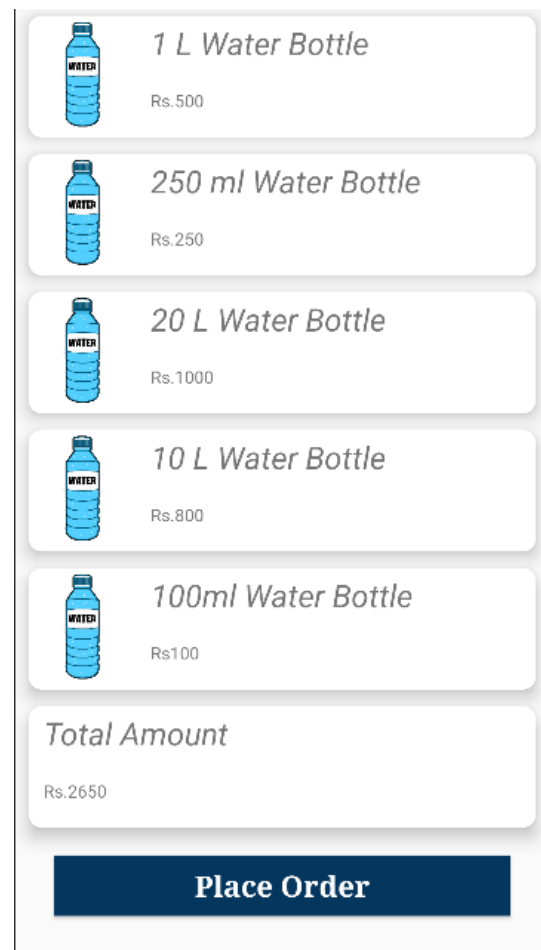
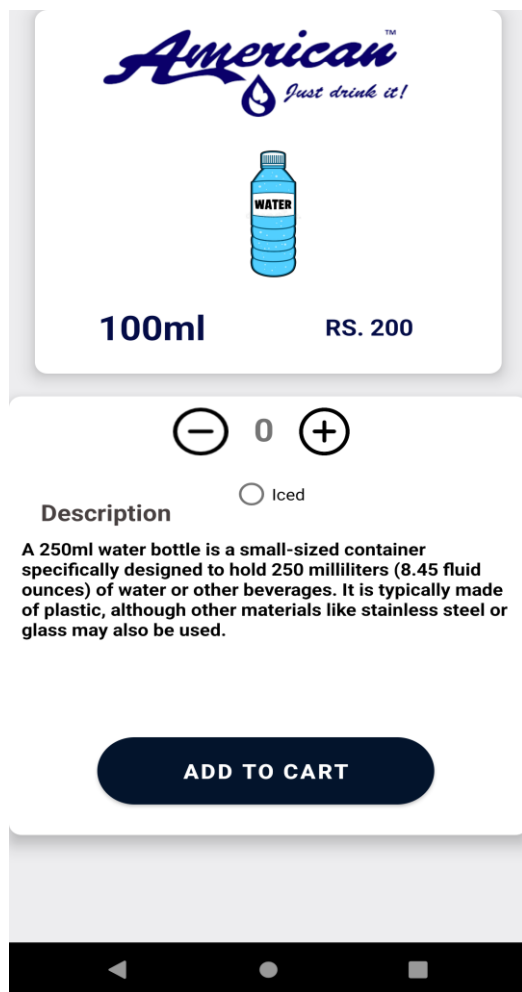
pearl
Water

Aquafresh
Aqua Fresh









Conclusion:

Key Findings and Outcomes:

The Aqua Delivery project has achieved significant milestones and met several objectives, resulting in a functional and reliable Android application. Key findings and outcomes of the project include:

Successful Implementation: The Aqua Delivery application was successfully developed, providing users with a convenient platform to order and receive water bottle deliveries.

User Registration and Authentication: The user registration and authentication system were implemented effectively, allowing users to create accounts, log in securely, and access personalized features.

Water Bottle CatLog and Ordering: The application offers a comprehensive catalog of water bottle options, enabling users to browse, select, and order bottles based on their preferences. The ordering process is streamlined and user-friendly.

Secure Payment Processing: The application incorporates secure payment processing methods, ensuring the safety of users' financial information during transactions.

Real-time Order Tracking: Aqua Delivery provides real-time order tracking, allowing users to monitor the progress of their deliveries and stay informed about the estimated delivery times

