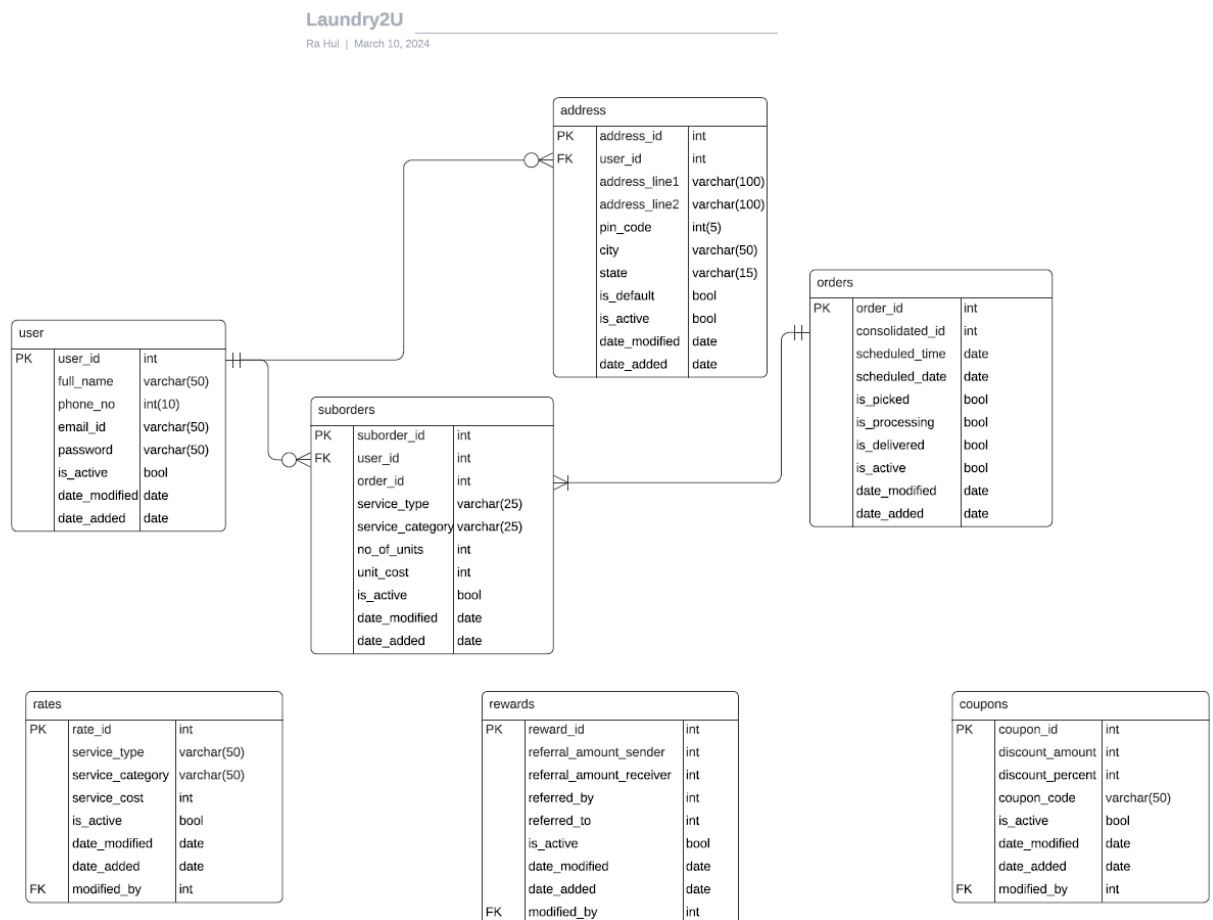


LAUNDRY WHEEL DESIGN AND DEVELOPMENT

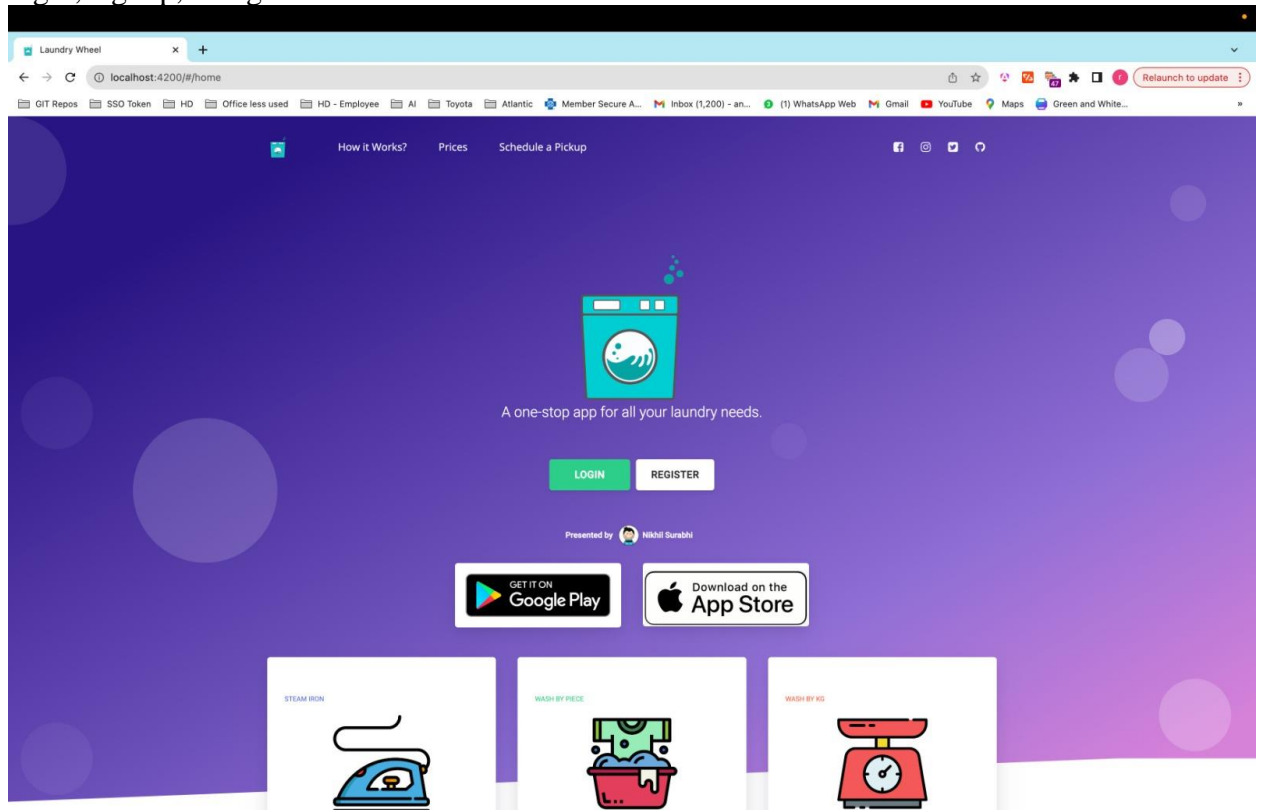
- 1. CREATING SYSTEM DESIGN:** Laundry wheel is a B2C application which is developed for users who want to avail premium laundry services by third party vendors in their specific locations who are willing to provide users with many laundry services which are widely used in the market.
- This application was developed for Website, Play store and Apple store.
 - Here I used Lucid chart to design the high-level structure of the application:



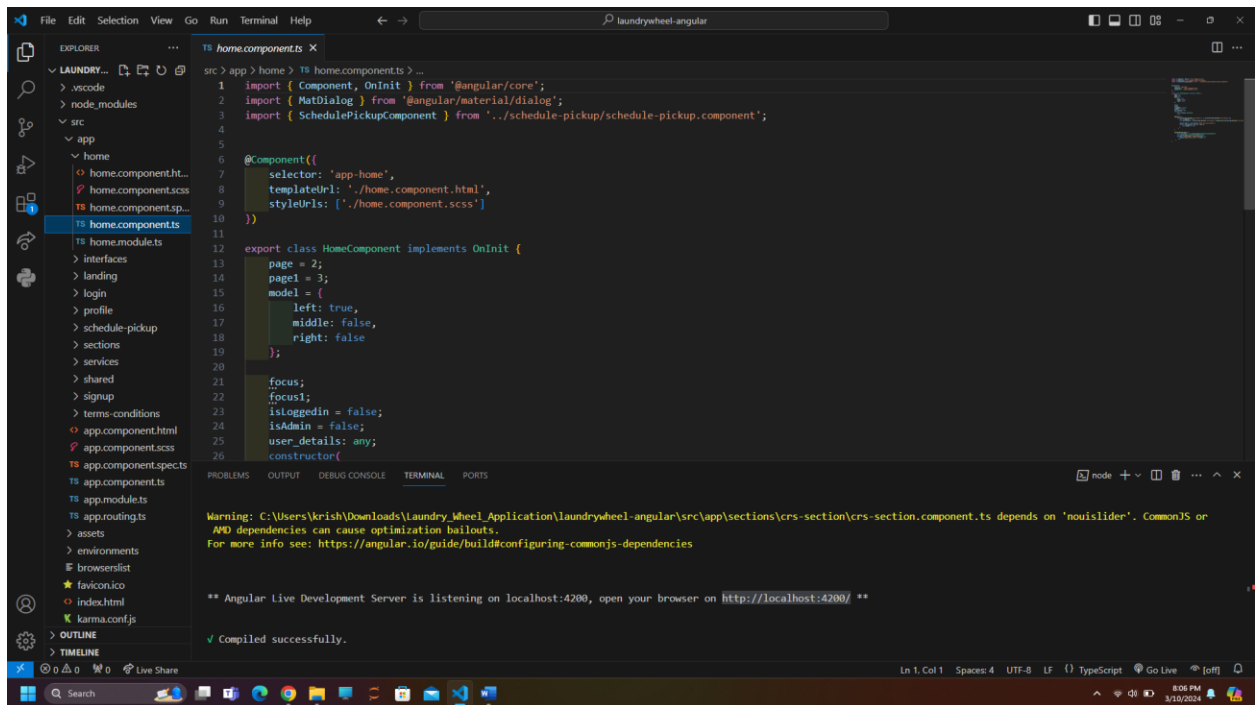
- Later utilized Figma to develop wireframes of the entire application homepage, etc.

3. APPLICATION'S WEBSITE DEVELOPED USING ANGULAR:

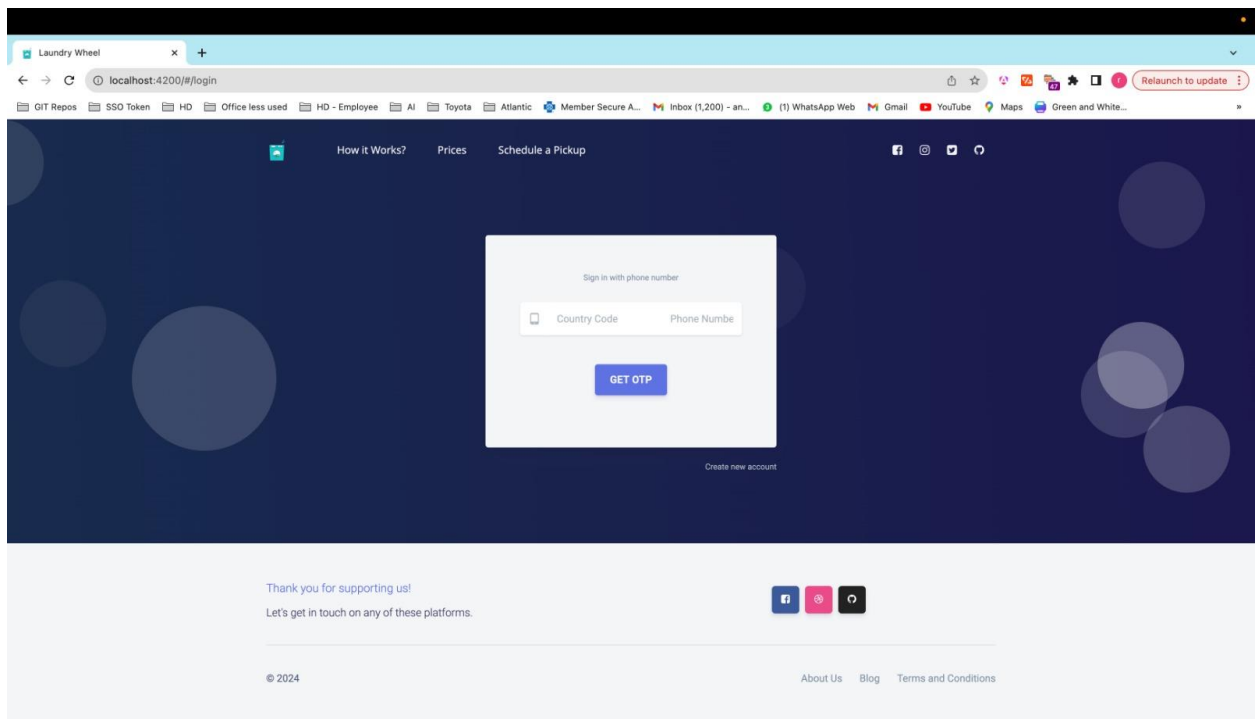
- **Homepage Component:** This is a SPA (single page application) in which all the services provided by the application are shown in this page. This page usually has the facility to login, signup, navigate to social media etc.



Code: Developed the code in Angular version 15, CSS styles from bootstrap, Typescript EC6.

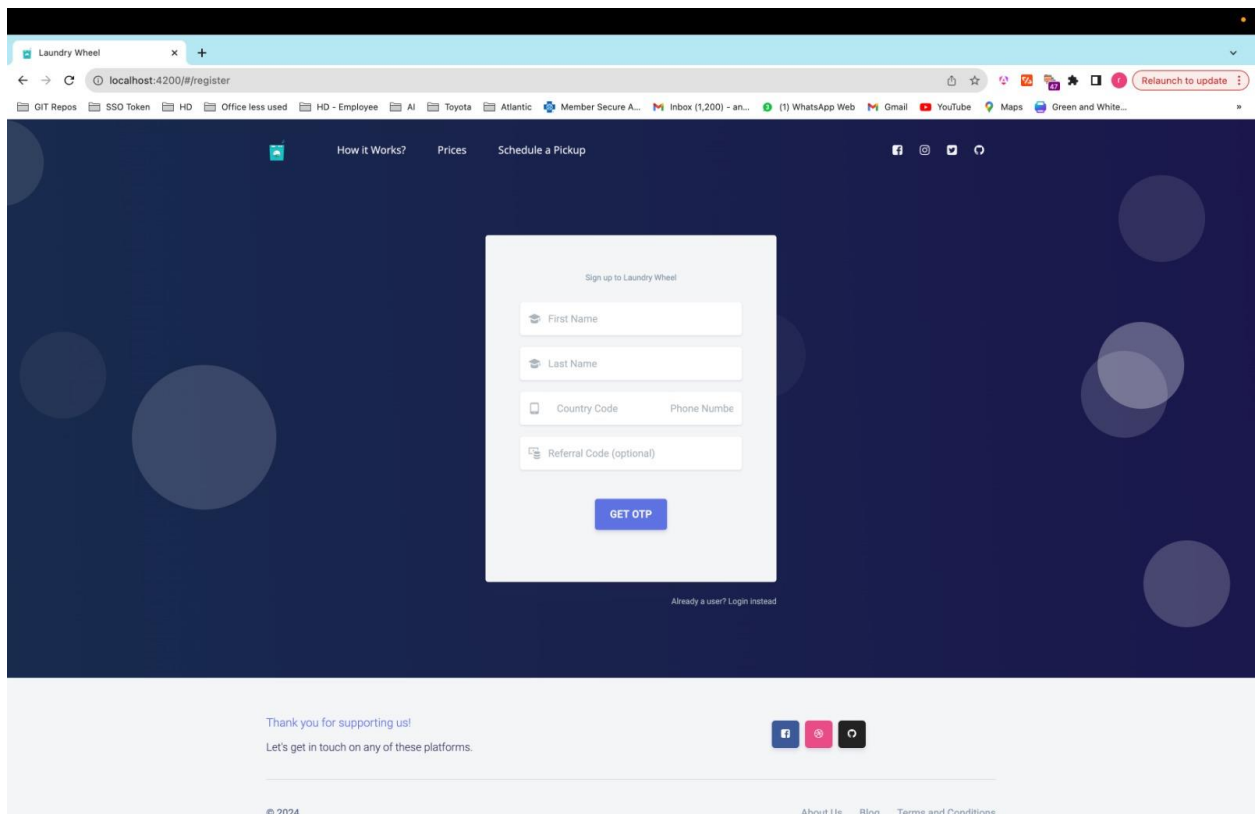


Login Page: Login page was initially developed for email ID in the initial release, but later changed to phone number and OTP to login, because the people of the demographic preferred using their phone number over email ID.
This was achieved using Google Firebase (O-AUTH2 feature for token generation)

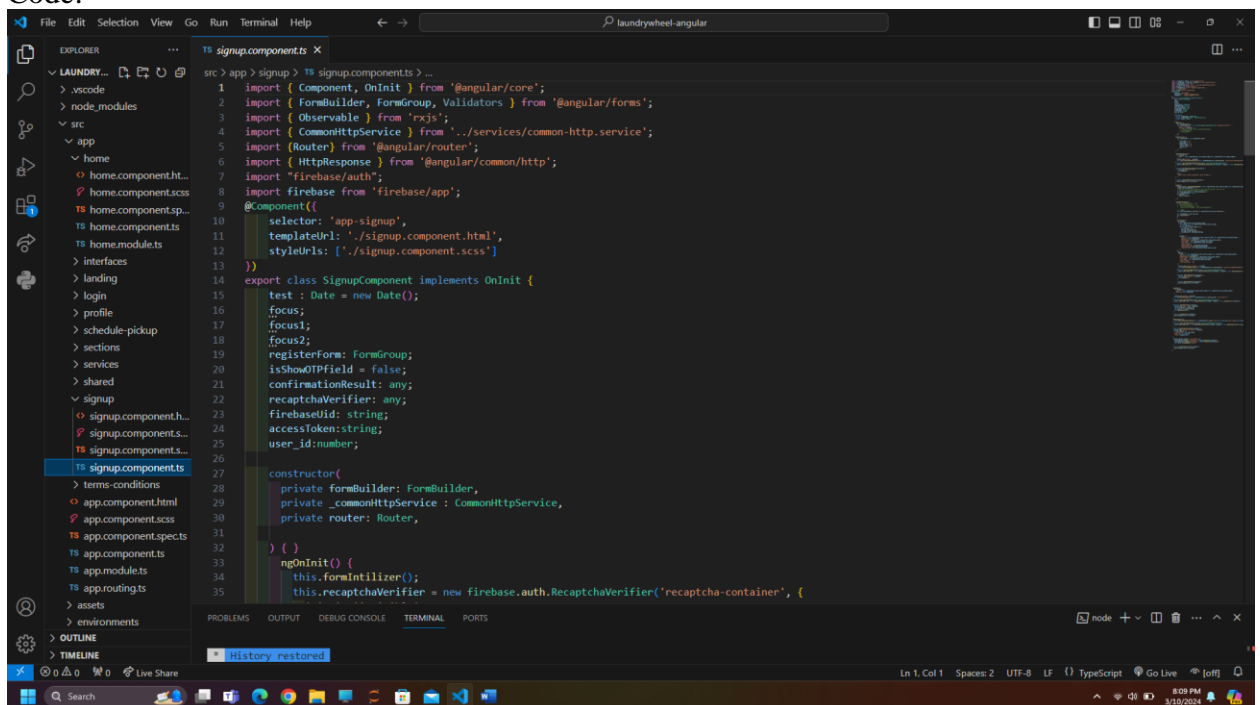


Code:

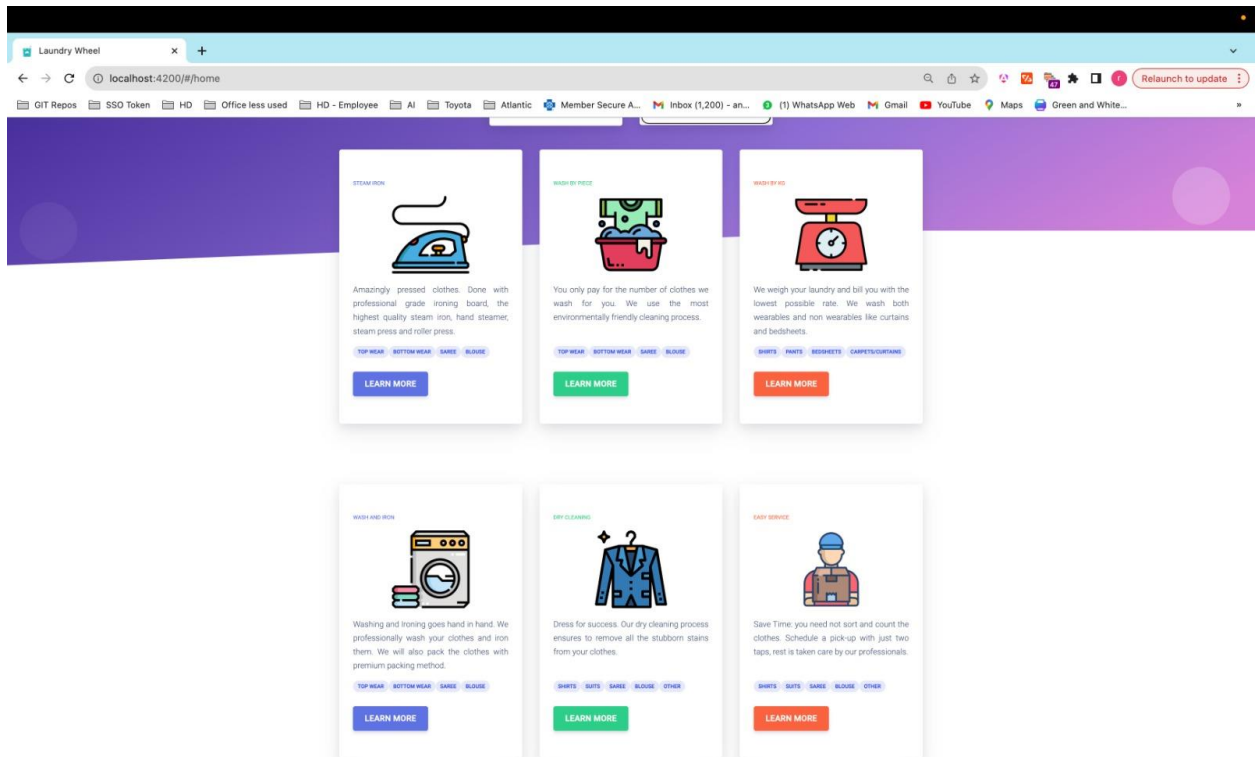
Signup/Register Page: This page usually takes input values from users such as their first, last names, Country code and referral to generate OTP (one time password)



Code:



Landing Page: This page provides all the information and selection of Laundry services that the users in that location can see. Every module is a CSS template upon clicking provided further information.



Code:

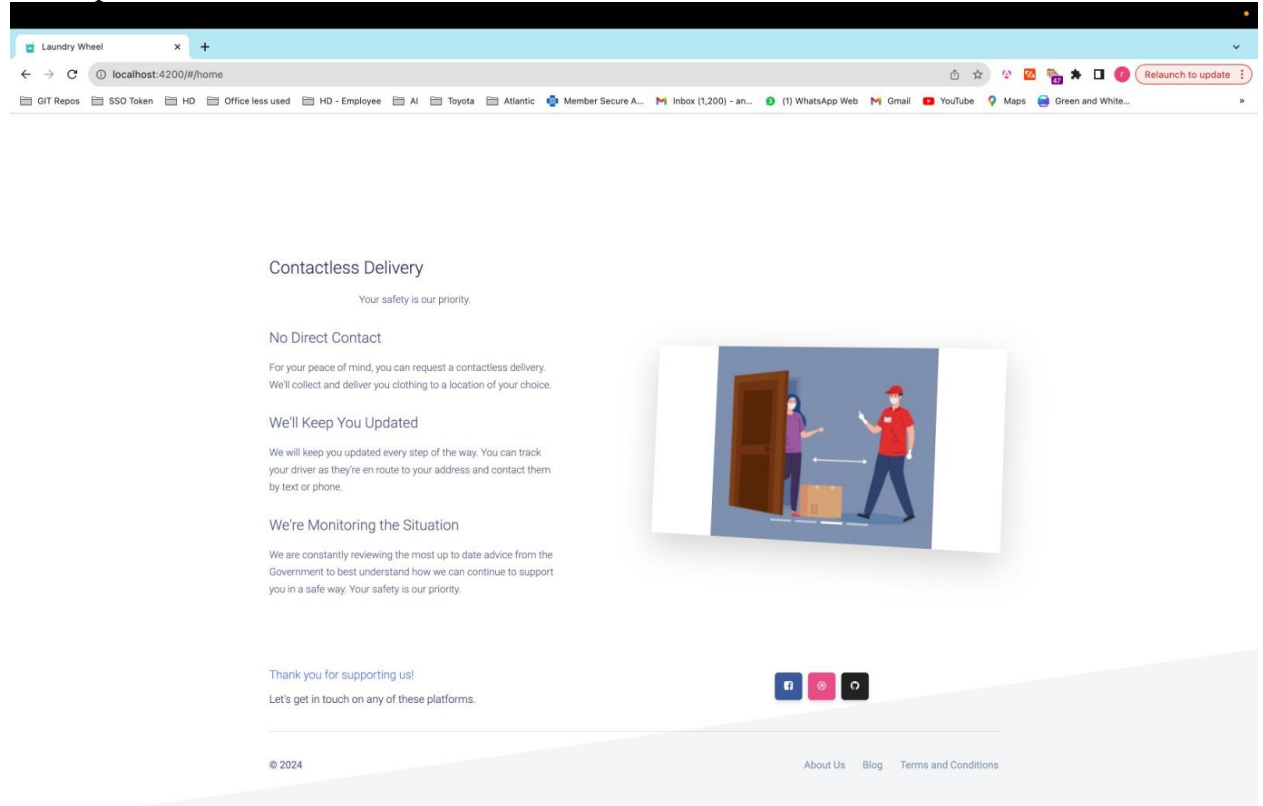
```

1 <main>
2   <div class="position-relative">
3     <!-- shape Hero -->
4     <section class="section section-lg section-shaped pb-250">
5       <div class="shape shape-style-1 shape-default">
6         <span></span>
7         <span></span>
8         <span></span>
9         <span></span>
10        <span></span>
11        <span></span>
12        <span></span>
13        <span></span>
14        <span></span>
15      </div>
16      <div class="container py-lg-md d-flex">
17        <div class="col px-0">
18          <div class="row">
19            <div class="col-lg-6">
20              <h1 class="display-3 text-white">A beautiful Design System
21              <span>completed with examples</span>
22            </div>
23            <p class="lead text-white">The design system comes with four pre-built pages to help you get started faster. You can change the text and i
24            <div class="btn-wrapper">
25              <a href="https://demos.creative-tim.com/argon-design-system-angular/documentation/alerts?ref=adsa-landing-page" class="btn btn-info btn-i
26                <span class="btn-inner--icon"><i class="fa fa-code"></i></span>
27                <span class="btn-inner--text">Components</span>
28              </a>
29              <a href="https://www.creative-tim.com/product/argon-design-system-angular?ref=adsa-landing-page" class="btn btn-white btn-icon mb-3 mb-sm
30                <span class="btn-inner--icon"><i class="ni ni-cloud-download-95"></i></span>
31                <span class="btn-inner--text">Download Angular</span>
32              </a>
33            </div>
34          </div>
35        </div>
36      </div>
37    </main>

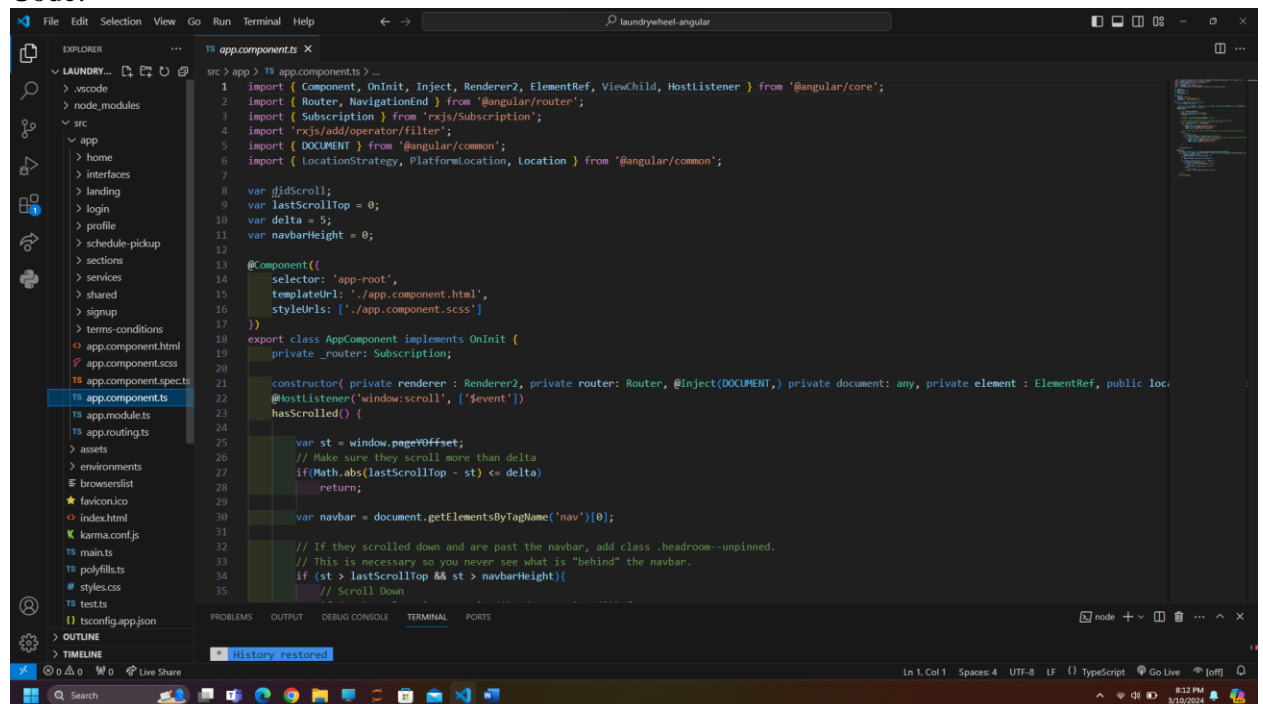
```

Terms & Conditions Page: It was during the COVID times that I developed this application so we came up with innovative ways of dealing with the situation with utmost

care and implementing contactless delivery. The right-side image shows a carousel developed in SCSS.



Code:



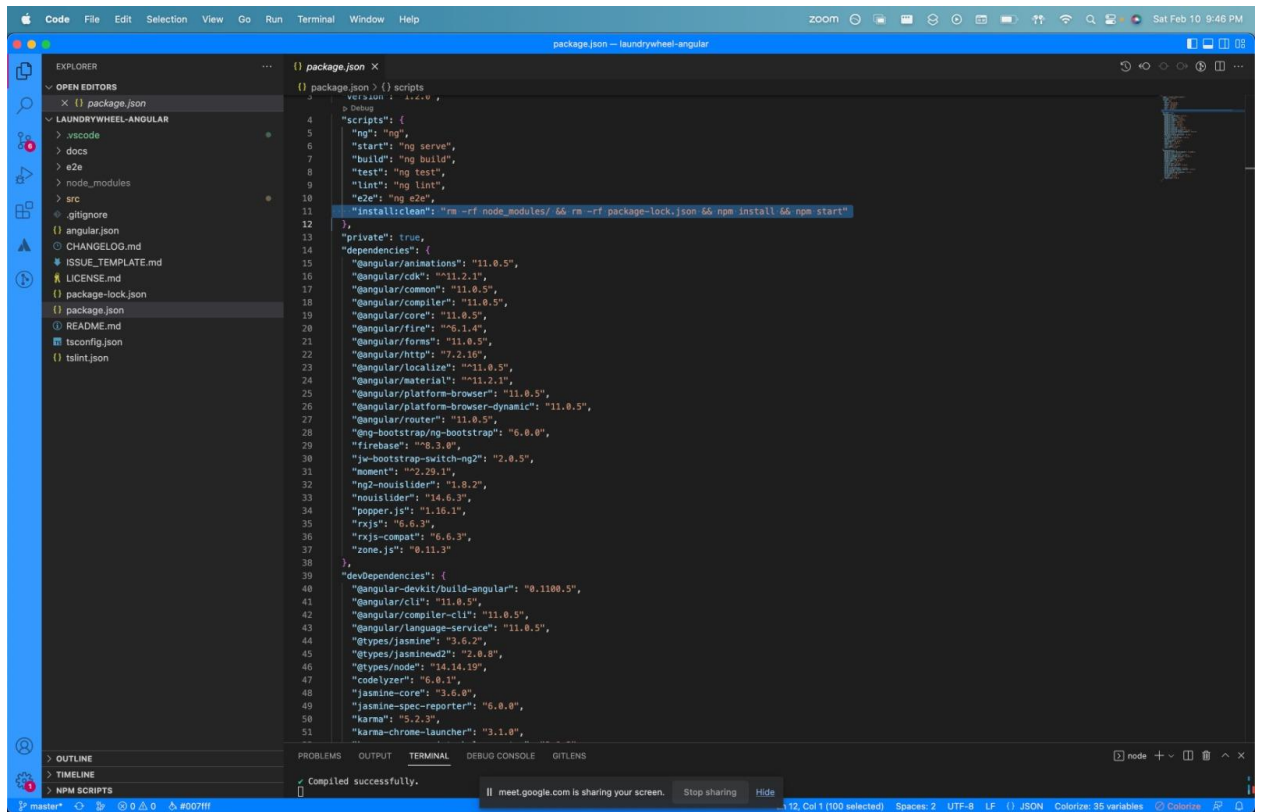
A screenshot of a web application's 'Schedule a Pickup' modal window. The modal has a white background and a dark purple border. At the top, there are navigation links: 'How It Works?', 'Prices', and 'Schedule a Pickup'. The title 'Schedule a Pickup' is at the top left, and a close button 'X' is at the top right. The main text reads: 'Let's not waste your valuable time in counting the clothes and weighing your Laundry. Just schedule a pickup and a friendly delivery professional will arrive at your doorstep at the time you choose to collect your laundry. Our delivery professional will count your clothes or weigh it for you to give you the cheapest cost possible.' Below the text is a large illustration of a delivery person in a blue uniform and cap, sitting on a red scooter and holding a green box with a white label. At the bottom right, there are two buttons: 'CANCEL' and 'SCHEDULE'.

The image shows a screenshot of a Visual Studio Code (VS Code) editor window. The interface is divided into several panels:

- File Explorer (Left):** Displays the project structure. The file `ts schedule-pickup.component.ts` is selected and highlighted in blue.
- Source Code (Center):** Shows the content of `ts schedule-pickup.component.ts`. The code is as follows:

```
1 import { Component, OnInit } from '@angular/core';
2 import { MatDialog } from '@angular/material/dialog';
3
4 @Component({
5   selector: 'app-schedule-pickup',
6   templateUrl: './schedule-pickup.component.html',
7   styleUrls: ['./schedule-pickup.component.css']
8 })
9 export class SchedulePickupComponent implements OnInit {
10
11   constructor(
12     public dialog: MatDialog
13   ) {}
14   ngOnInit(): void {
15
16
17     //programmatically closing dialog
18     closeDialog(){
19       const dialogRef = this.dialog.open(SchedulePickupComponent)
20       dialogRef.close();
21     }
22   }
23 }
```
- Terminal (Bottom):** The terminal is open, showing the message `History restored`.
- Bottom Status Bar:** Displays the current file path `Ln 1, Col 1`, encoding `UTF-8`, and other details like `Go Live` and `3/10/2024`.

Modules used in application: Stored in the file package.json. This file has all modules/decorators/directives/components/fields used in the application.



```
{} package.json X
() package.json > {} scripts
version: 1.0.0
"scripts": {
  "ng": "ng",
  "start": "ng serve",
  "build": "ng build",
  "test": "ng test",
  "lint": "ng lint",
  "e2e": "ng e2e",
  "install:clean": "rm -rf node_modules && rm -rf package-lock.json && npm install && npm start"
},
"private": true,
"dependencies": {
  "@angular/animations": "11.0.5",
  "@angular/cdk": "11.2.1",
  "@angular/common": "11.0.5",
  "@angular/compiler": "11.0.5",
  "@angular/core": "11.0.5",
  "@angular/fire": "6.1.4",
  "@angular/forms": "11.0.5",
  "@angular/http": "7.2.16",
  "@angular/localize": "11.0.5",
  "@angular/material": "11.2.1",
  "@angular/platform-browser": "11.0.5",
  "@angular/platform-browser-dynamic": "11.0.5",
  "@angular/router": "11.0.5",
  "@ng-bootstrap/ng-bootstrap": "6.0.0",
  "firebase": "8.3.0",
  "jw-bootstrap-switch-ng2": "2.0.5",
  "moment": "2.29.1",
  "ng2-nouislider": "1.8.2",
  "nouislider": "14.6.3",
  "popper.js": "1.16.1",
  "rxjs": "6.6.3",
  "rxjs-compat": "6.6.3",
  "zone.js": "0.11.3"
},
"devDependencies": {
  "@angular-devkit/build-angular": "0.1100.5",
  "@angular/cli": "11.0.5",
  "@angular/compiler-cli": "11.0.5",
  "@angular/language-service": "11.0.5",
  "@types/jasmine": "3.6.2",
  "@types/jasminewd2": "2.0.8",
  "@types/node": "14.14.19",
  "code-lyzer": "6.0.1",
  "jasmine-core": "3.6.0",
  "jasmine-spec-reporter": "6.0.0",
  "karma": "5.2.3",
  "karma-chrome-launcher": "3.1.0",
```

4. BACKEND DEVELOPMENT USING AWS:

- The application was deployed in AWS using EC2 instances, VPC and S3.

EC2 summary:

us-east-1.console.aws.amazon.com

EC2 > Instances > i-0f230fc412b5225d4

Instance summary for i-0f230fc412b5225d4

Updated less than a minute ago

Connect Instance state Actions

Instance ID i-0f230fc412b5225d4	Public IPv4 address 54.82.62.163 open address	Private IPv4 addresses 172.31.22.80
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-54-82-62-163.compute-1.amazonaws.com open address
Hostname type IP name: ip-172-31-22-80.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-22-80.ec2.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. Learn more
Auto-assigned IP address 54.82.62.163 [Public IP]	VPC ID vpc-6514cc18	Auto Scaling Group name -
IAM Role -	Subnet ID subnet-b45a05f9	
IMDSv2 Required		

Details Status and alarms New Monitoring Security Networking Storage Tags

Instance details

Platform Amazon Linux (Inferred)	AMI ID ami-0005e0cfe09cc9050	Monitoring disabled
Platform details Linux/UNIX	AMI name al2023-ami-2023.3.20240108.0-kernel-6.1-x86_64	Termination protection Disabled
Stop protection Disabled	Launch time Thu Jan 11 2024 09:33:59 GMT-0600 (Central Standard Time) (about 1 month)	AMI location amazon/al2023-ami-2023.3.20240108.0-kernel-6.1-x86_64
Instance auto-recovery Default	Lifecycle normal	Stop-hibernate behavior Disabled

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us-east-1.console.aws.amazon.com

Details Status and alarms New Monitoring Security Networking Storage Tags

Instance details

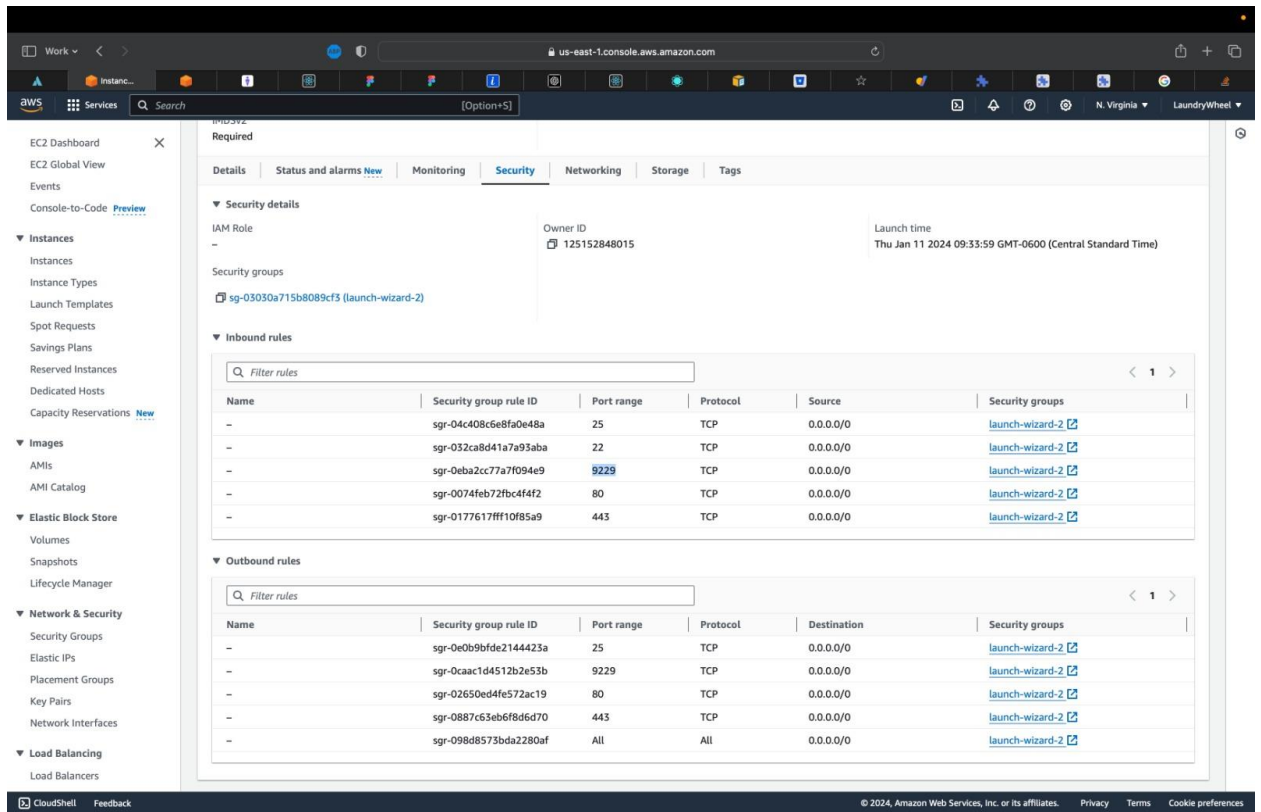
Platform Amazon Linux (Inferred)	AMI ID ami-0005e0cfe09cc9050	Monitoring disabled
Platform details Linux/UNIX	AMI name al2023-ami-2023.3.20240108.0-kernel-6.1-x86_64	Termination protection Disabled
Stop protection Disabled	Launch time Thu Jan 11 2024 09:33:59 GMT-0600 (Central Standard Time) (about 1 month)	AMI location amazon/al2023-ami-2023.3.20240108.0-kernel-6.1-x86_64
Instance auto-recovery Default	Lifecycle normal	Stop-hibernate behavior Disabled
AMI Launch index 0	Key pair assigned at launch LaundryWheelEC2	State transition reason -
Credit specification standard	Kernel ID -	State transition message -
Usage operation RunInstances	RAM disk ID -	Owner 125152848015
Enclaves Support -	Boot mode uefi-preferred	Current instance boot mode legacy-bios
Allow tags in instance metadata Disabled	Use RBN as guest OS hostname Disabled	Answer RBN DNS hostname IPv4 Enabled

Host and placement group

Host ID -	Affinity -	Placement group -
Host resource group name -	Tenancy default	Placement group ID -
Virtualization type hvm	Reservation r-074510103a18692f1	Partition number -
Number of vCPUs 1		

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AWS Security Groups:



5. APPLICATION DEVELOPMENT IN MOBILE:

- We used React native for developing the application in mobile for both Android and iOS. For iOS, I used Material UI instead of Swift for design and development.

Overview of the software used in Mobile: Because of few technical limitations, The application is not able to be shown as the builds were older and couldn't run now.

Name	Date modified	Type	Size
▼ Today			
.DS_Store	3/10/2024 3:48 PM	DS_STORE File	7 KB
App	3/10/2024 3:48 PM	JavaScript Source ...	3 KB
app.json	3/10/2024 3:48 PM	JSON File	1 KB
babel.config	3/10/2024 3:48 PM	JavaScript Source ...	1 KB
index	3/10/2024 3:48 PM	JavaScript Source ...	1 KB
metro.config	3/10/2024 3:48 PM	JavaScript Source ...	1 KB
package.json	3/10/2024 3:48 PM	JSON File	2 KB
package-lock.json	3/10/2024 3:48 PM	JSON File	397 KB
README	3/10/2024 3:48 PM	Markdown Source...	3 KB
yarn.lock	3/10/2024 3:48 PM	LOCK File	319 KB
src	3/10/2024 3:55 PM	File folder	
android	3/10/2024 3:55 PM	File folder	
__tests__	3/10/2024 3:54 PM	File folder	
ios	3/10/2024 3:54 PM	File folder	

For Android:

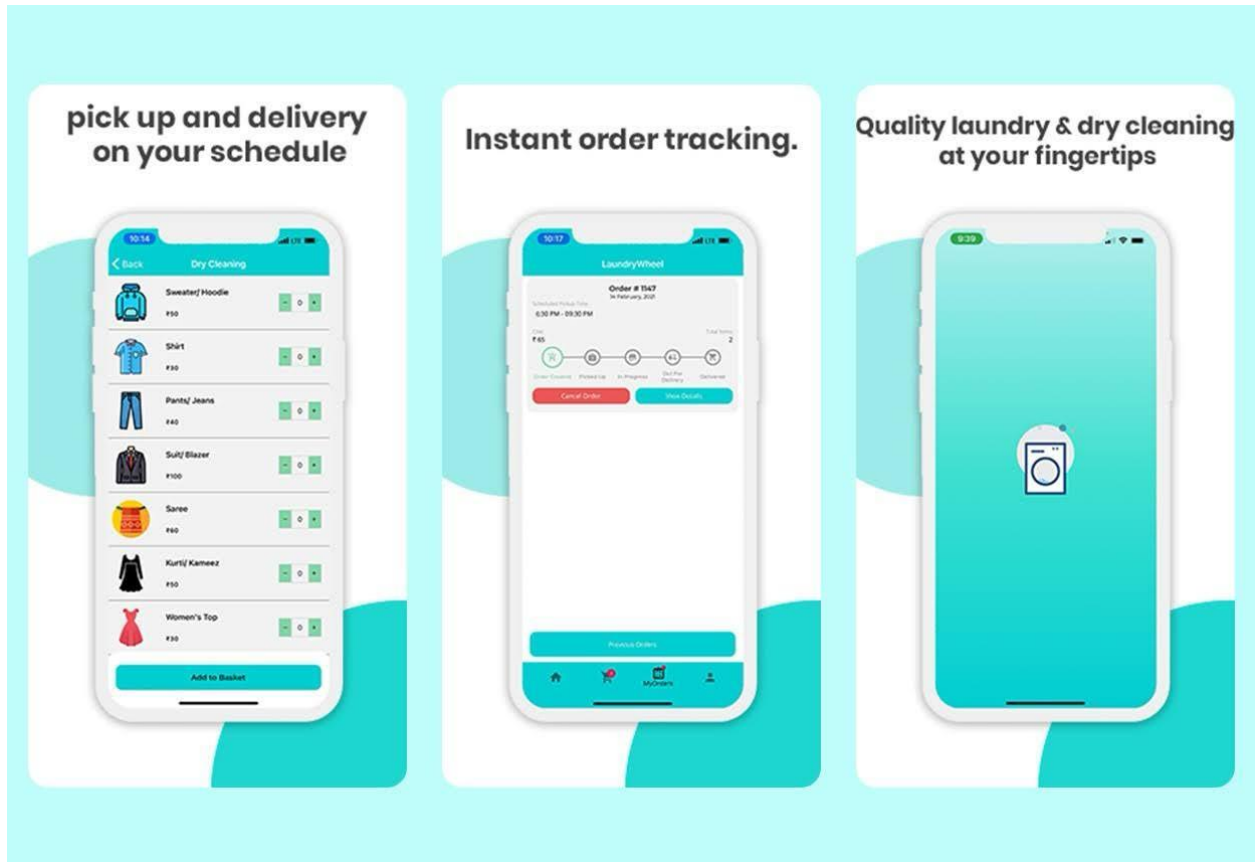
Name	Date modified	Type	Size
Today			
gradlew	3/10/2024 3:54 PM	Windows Batch File	3 KB
settings	3/10/2024 3:54 PM	Gradle Source File	1 KB
build	3/10/2024 3:54 PM	Gradle Source File	1 KB
gradle	3/10/2024 3:54 PM	Properties Source ...	2 KB
gradlew	3/10/2024 3:54 PM	File	6 KB
local	3/10/2024 3:54 PM	Properties Source ...	1 KB
.gradle	3/10/2024 3:55 PM	File folder	
gradle	3/10/2024 3:55 PM	File folder	
app	3/10/2024 3:55 PM	File folder	

For iOS:

Name	Date modified	Type	Size
✓ Today			
.DS_Store	3/10/2024 3:48 PM	DS_STORE File	7 KB
main.jsbundle	3/10/2024 3:48 PM	JSBUNDLE File	1,536 KB
Podfile	3/10/2024 3:48 PM	File	1 KB
Podfile.lock	3/10/2024 3:48 PM	LOCK File	20 KB
Laundry2U.xcodeproj	3/10/2024 3:54 PM	File folder	
Laundry2UTests	3/10/2024 3:54 PM	File folder	
Pods	3/10/2024 3:54 PM	File folder	
Laundry2U	3/10/2024 3:48 PM	File folder	
Laundry2U.xcworkspace	3/10/2024 3:48 PM	File folder	
Laundry2U-tvOSTests	3/10/2024 3:48 PM	File folder	
Laundry2U-tvOS	3/10/2024 3:48 PM	File folder	
✓ A long time ago			
laundryjs	8/30/2020 11:23 AM	File folder	

6. LAUNDRY WHEEL APPLICATION IN MOBILE:

SYSTEM DESIGN:



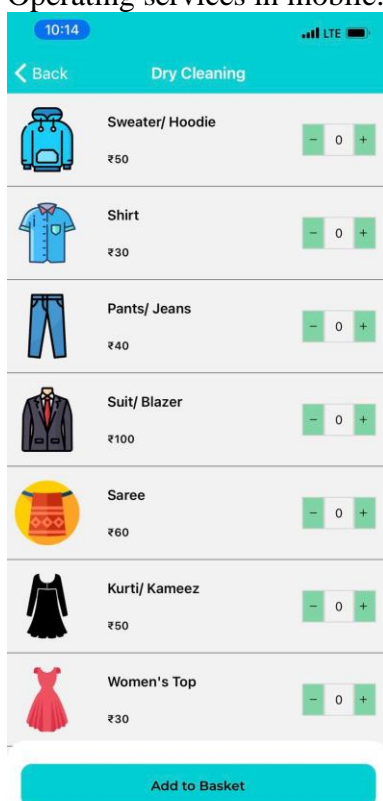
Loading Logo: Design a default design logo whenever the app is refreshed or updated.



Homepage in mobile:



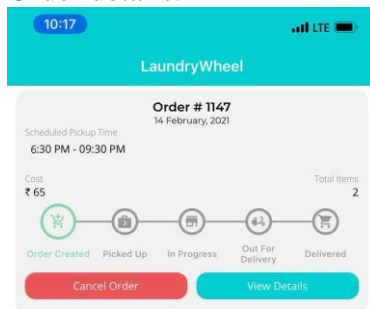
Operating services in mobile:



Finalizing the pickup service:

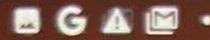


Order details:



Real time testing with many users: Finalized version of the application is released on both iOS and Android that is on both Apple's Play store and App store. Then tested on many mobile devices for final testing.

12:42



Something went wrong



Cannot read property 'user_details' of null

Order # 1176

21 February, 2021

Scheduled Pickup Time

Invalid date

09:30 PM - 09:30 PM

Total Items

1



Order Created

Picked Up

In Progress

Out For Delivery

Delivered

Cancel Order

View Details

Order # 1175

21 February, 2021

Scheduled Pickup Time

Invalid date

09:30 PM - 09:30 PM

Cost

₹ 0

Total Items



Order Created

Picked Up

In Progress

Out For Delivery

Delivered

Cancel Order

View Details

Previous Orders



MyOrders



12:42



Order Details



DC

Shirt

₹30

₹30 X QTY 1

Pants/ Jeans

₹40

₹40 X QTY 1

Sweater/ Hoodie

₹100

₹50 X QTY 2

Suit/ Blazer

₹200

₹100 X QTY 2

Saree

₹120

₹60 X QTY 2



12:42

KundryWheel

Dry Cleaning



Saree

₹60 X QTY 1

₹60



Available Points

₹0

APPLY

Total Items

1

Cost

₹60

Schedule pickup



Basket



This concludes the overall design and development of my laundry application, and it took over an year of hard work and passion to bring it out to the market. This application had an active user base of over 1000 users and served people over 10+ regions in India.

The app officially got shut down on 2021 December.

More Content and References: The provided GIT link has a laundry wheel repository where you can see and check the code

<http://github.com/Nikhil-Surabhi>