SOFTMONKS
we make it possible

REPORT OF INTERNSHIP DONE AT SOFTMONKS PRIVATE LIMITED

Bazar Khata (Vendors)

Bazar Khata

SAHIL HIRAKANT BELURKAR

2006

SOFTMONKS PRIVATE LIMITED

GOA UNIVERSITY

Bazar Khata (Vendors)

Bazar Khata

Completed by

SAHIL HIRAKANT BELURKAR
2006

for the partial fulfillment of
MCA Degree for Semester VI
Discipline of Computer Science and Technology,
Goa Business School,
Goa University

At
SOFTMONKS PRIVATE LIMITED
Khorlim, Mapusa - Goa

Under the guidance of

Shivprasad Ajgaonkar
(Managing Director)

&

Devayani Sirsat
(Project Lead)

SOFTMONKS
we make it possible

SoftMonks (OPC) Private Limited
CIN: U72200GA2015OPC007747
Office #12, 5th Floor, Buildmore Business Park,
Khorlim-Xim, Mapusa, Goa - 403507 (INDIA)
Cell: +91 982-211-3668 Phone: +91 832-297-6622
info@softmonks.com www.softmonks.com

TO WHOMESOEVER IT MAY CONCERN

This is to certify that **Mr. Sahil Hirakant Belurkar** was employed with us as an "**Intern**" from January 2, 2023 to June 30, 2023 in the capacity of **Software Developer.**

During his tenure of service with us we found him sincere, hardworking and enterprising. He was efficient in his work and capable of handling the work assigned to him, effectively. His major contributions during the internship was as follows:

- Developing Mobile Billing System App.
- Acquired in depth knowledge of Flutter, Dart, Mobile App development, etc.
- Worked to create test cases to debug and test the application.

We issue this certificate to thank him for being such a good addition to the team and the company here. For whatever small time, and wish him all the best in his future endeavors.

SoftMonks (OPC) Private Limited

Managing Director

Shivprasad Mangesh Ajgaonkar

SOFTMONKS (OPC) PVT. LTD. Mapusa-Goa

Place: Mapusa, Goa
Date: June 12, 2023

GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that Mr./~~Ms.~~ Sahil Hirakant Belurkar has successfully completed his internship at SOFTMONKS Private Limited, Khorlim-Xim, Mapusa, in partial fulfillment of the award of the degree in Master of Computer Application.

Examiner 1

Examiner 2

Place: Goa University

Date: 14/06/2023

Dean, Goa Business School

ACKNOWLEDGMENT

The Internship opportunity I had with SoftMonks was a great chance for learning and growing at a professional level. Therefore, I feel blessed and lucky to be a part of it.

I would like to thank the Managing Director of SoftMonks, Mr. Shivprasad Ajgaonkar for giving me the internship opportunity at SoftMonks.

I would also specially like to thank Ms. Devayani Sirsat, Mr. Valencio Araujo and all the SoftMonks colleagues for their constant support, encouragement, guidance and their valuable time for me.

Last but not the least; I would like to thank the Department of Computer Science and Technology, Goa University for their constant support and encouragement.

REPORT OF INTERNSHIP DONE AT SOFTMONKS PRIVATE LIMITED

Bazar Khata

SAHIL HIRAKANT BELURKAR

2006

SOFTMONKS PRIVATE LIMITED **GOA UNIVERSITY**

Bazar Khata

Completed by

SAHIL HIRAKANT BELURKAR
2006

for the partial fulfillment of
MCA Degree for Semester VI
Discipline of Computer Science and Technology,
Goa Business School,
Goa University

At

SOFTMONKS PRIVATE LIMITED

Khorlim, Mapusa - Goa

Under the guidance of

Shivprasad Ajgaonkar
(Managing Director)

&

Devayani Sirsat
(Project Lead)

Date: 13 June 2023

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr./Ms. _____, student of Master of Computer Applications (MCA) of Goa University, Goa, is currently undergoing/has completed his/her final semester project (Semester VI) at our organization/company, SOFTMONKS Private Limited from StartDate to EndDate.

During his tenure he has met the expectations of his team lead/mentor/guide and found to be regular and sincere.

This certificate is being issued on his request to be submitted with the project report at Goa University.

The final internship completion certificate will be provided on completing his internship.

Your Sincerely

Shivprasad Ajgaonkar
(Managing Director)

Devayani Sirsat
(Project Lead)

GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that Mr./Ms. _____has successfully completed her internship at SOFTMONKS Private Limited, Khorlim-Xim, Mapusa, in partial fulfillment of the award of the degree in Master of Computer Application.

_____ _____

Examiner 1 Examiner 2

Place: Goa University _____

Date: 14/06/2023 Dean, Goa Business School

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Table of Contents

Introduction ……... 7

Company profile …… 8

My Designation in Company and important roles performed as an Intern …….. 9

Problem Statement…… 10

Overview …….. 11

My contributions ……... 12

Tools and Technologies Used …… 15

Screenshots ……... 18

Certifications Completed under Internship ……... 38

Conclusions/Summary …….. 39

Internship Timeline …… 40

My reflections/experiences of internship …… 43

References ……... 44

Introduction

This report is a short description of my full-time on-site internship at SoftMonks.

I joined this company as an Intern on 2 January 2023 and have been here since then. This report contains necessary information about the organization, the mini projects I worked on and the other tasks I completed in this internship period.

In this report I shall talk about the company's work and culture. Then I shall elaborate on the projects I worked on as an intern and provide a brief information about the projects, modules, and the tasks I have completed in this internship period.

This report highlights my learning experience and my contributions to the organization as an intern. This will describe the knowledge that I gained by successfully completing the tasks that were assigned to me.

I will also be talking about the Tools and technologies that were used throughout my internship time period.

I shall conclude by sharing my experience and how it has helped me to grow myself towards personal and professional life.

Company Profile

About SoftMonks

SoftMonks (opc) Private Limited is a Private incorporated on 25 October 2015. It is classified as non-govt company and is registered at Registrar of Companies, Goa. It is involved in Software publishing, consultancy and supply software, operating systems software, business & other applications software.

Overall, the company's expertise in cross-platform e-commerce, marketing, and content management enables them to design comprehensive programs that combine all of these elements flawlessly. Their main areas of expertise are Android, iOS, Gaming, Web based software using PHP, MYSQL, HTML/CSS, JAVASCRIPT. This integrated approach promotes client pleasure and involvement, which eventually enhances business growth and success.

SoftMonks believes in perfection. They follow the "Software Development Life Cycle" and ensure that all products developed by them are well tested by their usability experts. Select the finest technology depending on the needs of the client and deliver software through a series of complex permutations and combinations to achieve the highest quality.

The company primarily follows three letters that differentiate them, which are

- **“LISTEN”** : The company listens to all requirements, researches the client’s business model, understands their queries, and target audience for building perfect software.
- **“THINK”** : After hearing all the requirements, researching the business model, and determining the target audience for building your perfect software.
- **“DEVELOP”** : Based on needs and research, they create your programs using the greatest technology available.

My Designation in Company and Important Roles Performed as an Intern

As a Flutter developer during my internship, I played a crucial role in developing innovative mobile applications using the Flutter framework.

Alongside my two other classmates (Mohit Borkar [2008] & Danish Dharwad [2012]), we collaborated on a significant project, which is outlined in detail in our problem statement. Together, we successfully implemented various features and functionalities, ensuring a seamless and user-friendly experience for the end-users.

Throughout the internship, I actively participated in code reviews, bug fixing, and optimization efforts, showcasing my dedication to delivering high-quality software solutions.

My contribution as a Flutter developer allowed me to sharpen my skills, gain valuable industry experience, and contribute to the success of the team.

Problem Statement

The current state of vendor operations lacks efficient and streamlined management of product pricing, inventory, and sales transactions. Vendors often face challenges in accurately calculating product costs, determining optimal inventory levels, and maintaining a clear record of transactions. This results in potential financial losses, inefficient inventory management, and missed business opportunities.

Key issues include the absence of a centralized platform for calculating product prices and determining total units required, limited access to up-to-date market trends and pricing information, inadequate tracking of inventory levels, and difficulties in managing transaction records.

Without a comprehensive solution, vendors struggle to make informed decisions regarding product pricing and inventory management, leading to potential overstocking or understocking, which in turn impacts revenue and profitability. Additionally, the absence of an accurate and efficient transaction management system hinders the vendors' ability to track sales, payment status, and overall financial performance.

Overview

To address the above challenges, our app aims to provide vendors with a user-friendly and efficient platform for managing product pricing, inventory, and sales transactions. The app's main page will offer a robust platform for calculating product prices and determining the required inventory levels, enabling vendors to make informed decisions quickly and accurately.

The inventory page will provide vendors with access to recent prices and products, ensuring they stay up-to-date with market trends and pricing. This information will empower vendors to stock the right products at competitive prices, optimizing their inventory management strategies.

The sales page will enable vendors to effectively track his weekly sales and show sales based on single products, providing them with a clear understanding of their product sales.

The transaction page will offer a comprehensive view of all transactions, displaying vital details such as the total bill, purchased quantities, payment mode, and payment status. Vendors will have the option to add items for pending payments and generate accurate bills, ensuring a precise record of transactions and simplified financial management.

By implementing our app, vendors will have access to inventory tracking, transaction management, and pricing calculators, equipping them with the necessary tools to complete their operations, save time, and increase profitability. This solution will address the existing challenges and empower vendors to run their businesses more efficiently and effectively.

My Contributions

Name, Logo and Splash screen

Firstly, after listening to Sir's idea, we needed to come up with a good name that describes our app properly. I suggested the name Bazar Khata and we all agreed upon it, then I went further on creating the logo as well as a small animation splash screen using Canva. Later decided the theme that will complement the whole app.

Database Research

I have been assigned the task of researching different types of local databases suitable for Flutter app development.

Log in and Sign-up

I implemented the log in and sign-up functionality and worked on the UI/UX design. Additionally, I ensured that user details are stored in the database. Moreover, I implemented a validation to prevent the same email from being used for signing in again.

Home

I completed the basic layout of the page, including calculations such as multiplying price by quantity and summing up the rows. Additionally, I implemented the functionality to add new rows.
I implemented the functionality to store payment details in the database upon selecting either cash or UPI payment options. Furthermore, I created the necessary tables to store the relevant details when the user chooses cash or UPI as the payment method.

Inventory (Product List)

After facing initial challenges in storing unique products with updated prices, I persevered for seven weeks and eventually achieved success. The product list was then utilized in the suggestion list on the home page, which also automatically filled the price text field of the corresponding product.

Sales

I utilized Fl_charts to implement graphs that display the top 10 product sales of the week. Additionally, I created another graph that allows users to track the sales of individual products over a specific time period.

Transaction

I stored the bills in a database, including necessary data such as the bill number, total amount, payment mode, and (in a later phase) status. I displayed this information in a tabular form, making the bills in the table clickable. When clicked, the user can view a well-formatted bill with the corresponding date and time. Additionally, I added statistics to the app bar, providing a graphical representation of the total sales achieved within a given time period and broken down by payment mode. This feature helps users gain insight into their cash flow by providing an overview of their sales performance

Pending

With the late requirement of having an option to indicate the status of bills as either "paid" or "pending," I stored the status of the bill in database.

QR upload

To implement UPI payment, it was necessary to include the functionality of uploading a QR code. With the assistance of an image picker and image cropper, I was able to achieve this functionality. The image picker allowed users to select the QR code image from their device, while the image cropper facilitated cropping and resizing the image as needed for optimal display. These features made it possible to successfully implement UPI payment by allowing users to upload their QR code for scanning and payment processing.

Download Receipt

I implemented a functionality to calculate the total sales for each quarter, providing detailed information such as the total payment amount and the payment mode used for each three-month period. Additionally, I included a grand total for each quarter. To

ensure the information is easily accessible, I stored a simple PDF containing all these details. This allows users to download and view a comprehensive receipt that summarizes the sales data for each quarter, including payment information.

Flutter is an open-source framework developed and supported by Google. Flutter launched in 2018, it mainly supported mobile app development. Cross-platform app development allows developers to use one programming language and one codebase to build an application for multiple platforms. Flutter now supports application development on six platforms: iOS, Android, the web, Windows, MacOS, and Linux.

Flutter uses the open-source programming language Dart, which was also developed by Google. Dart is optimized for building UIs, and many of Dart's strengths are used in Flutter.

Benefits of Flutter App Development

1. Flutter is a Cross-platform Development Framework
2. Fast Development due to "Hot Reload" feature
3. Highly Customizable UI Design
4. A Wide Variety of Rich Widgets
5. Access to Native Features
6. Publicly Accessible
7. Better Performing with the Dart, Skia, and DevTool

Tools and Technologies Used

- **Visual Studio Code**

Visual Studio is a powerful developer tool that you can use to complete the entire development cycle in one place. It is a comprehensive integrated development environment (IDE) that you can use to write, edit, debug, and build code, and then deploy your app.

- **Flutter**

Flutter is Google's portable UI toolkit for crafting beautiful, natively compiled applications for mobile, web, and desktop from a single codebase. Flutter works with existing code, is used by developers and organizations around the world, and is free and open source.

- **Canva**

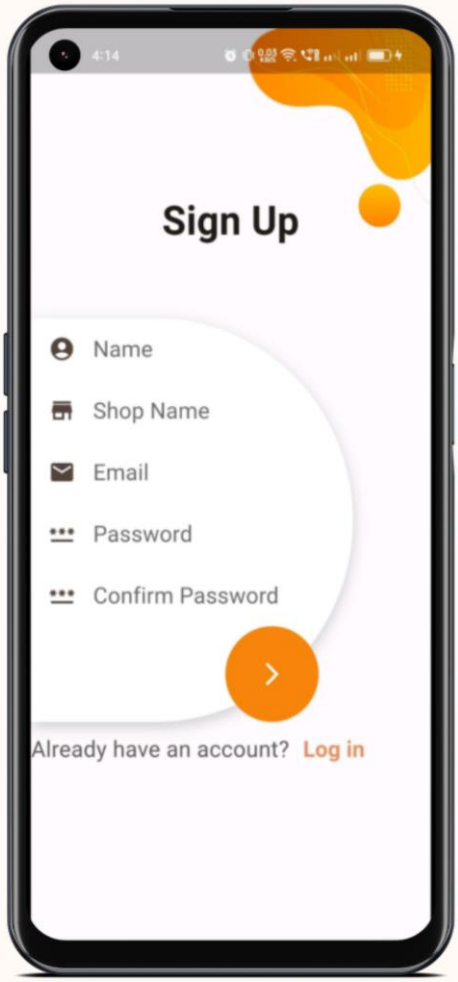
Canva is used to make designing beautiful creative assets easy for everyone. From social media images, videos and gifs to posters, websites, booklets, multimedia presentations, and heaps more, Canva is an invaluable tool for helping level up users' design skills, even if users are just getting started.

Libraries Used

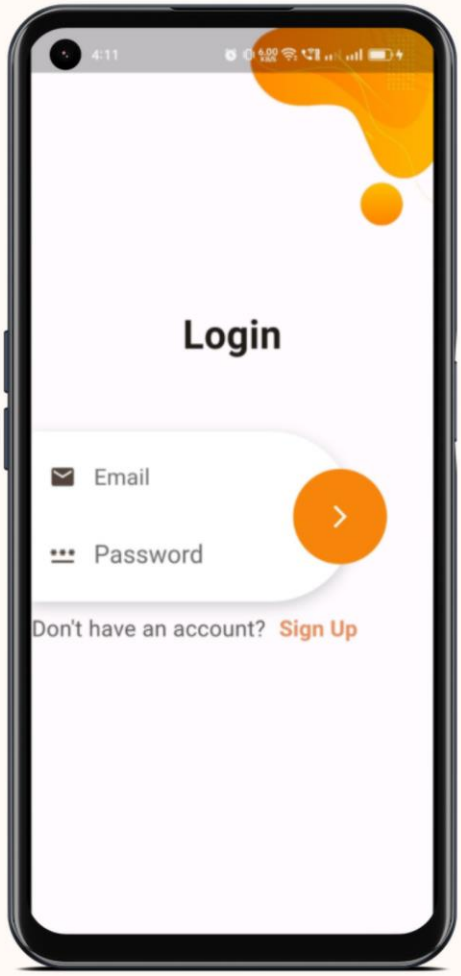
- **Sqlflite**
- **Image_cropper**
- **Fl_charts**
- **Date**
- **Syncfusion_flutter_pdf**

Screenshots

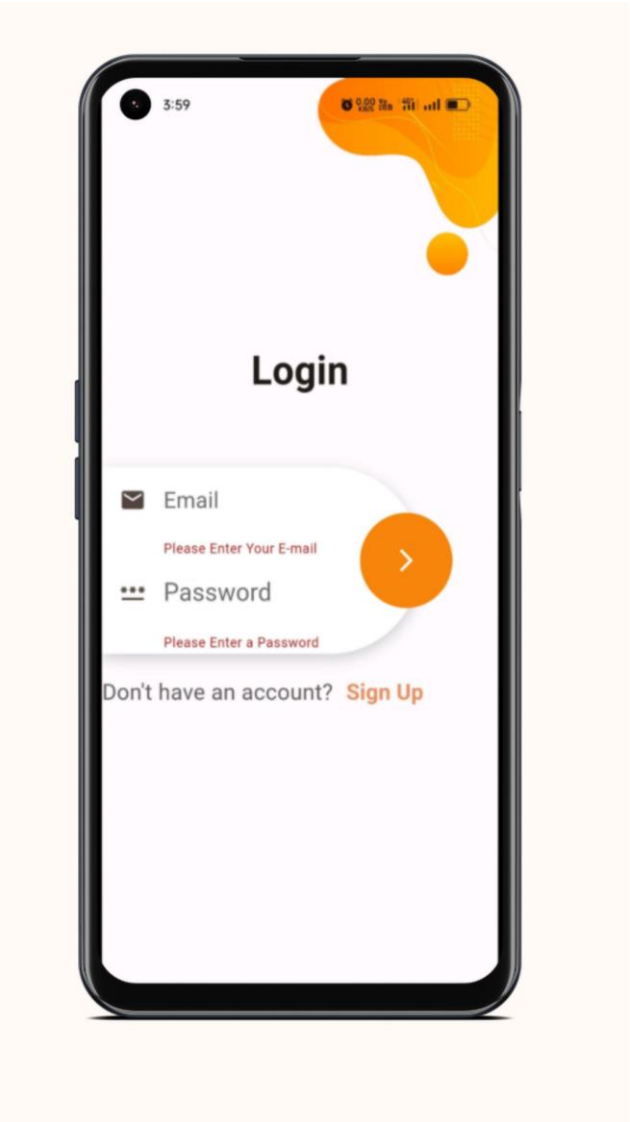
Sign Up Page

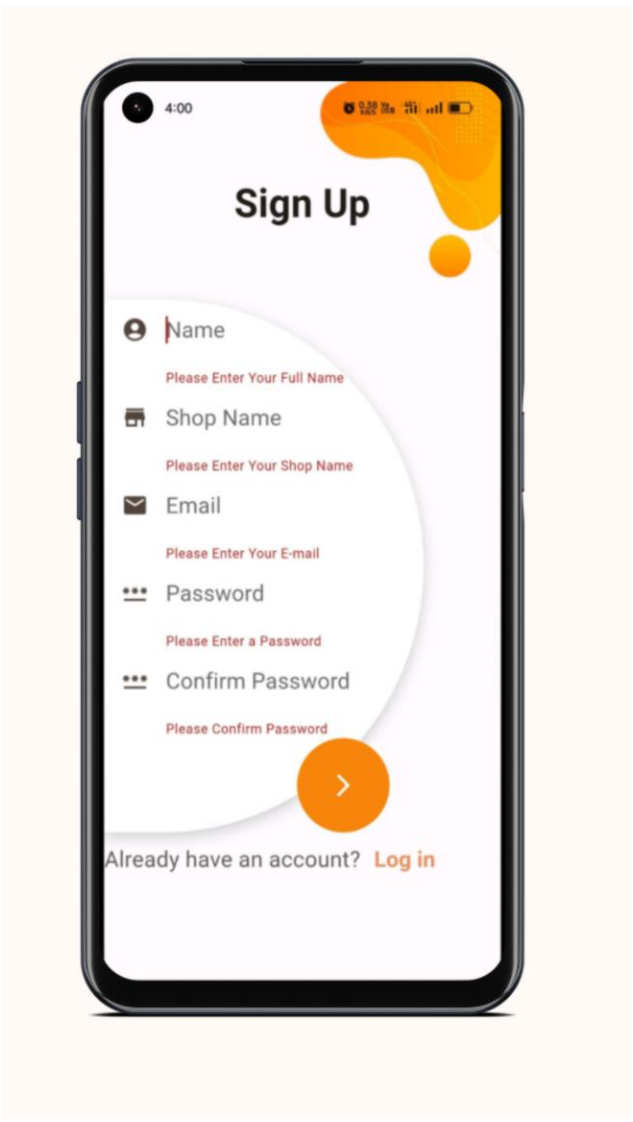


Login Page



Validation of Login & Sign-Up Page

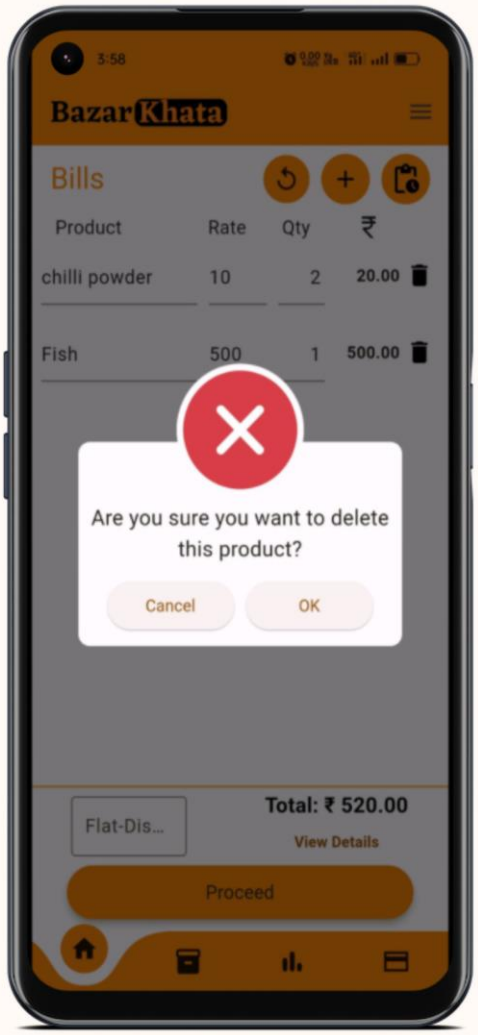




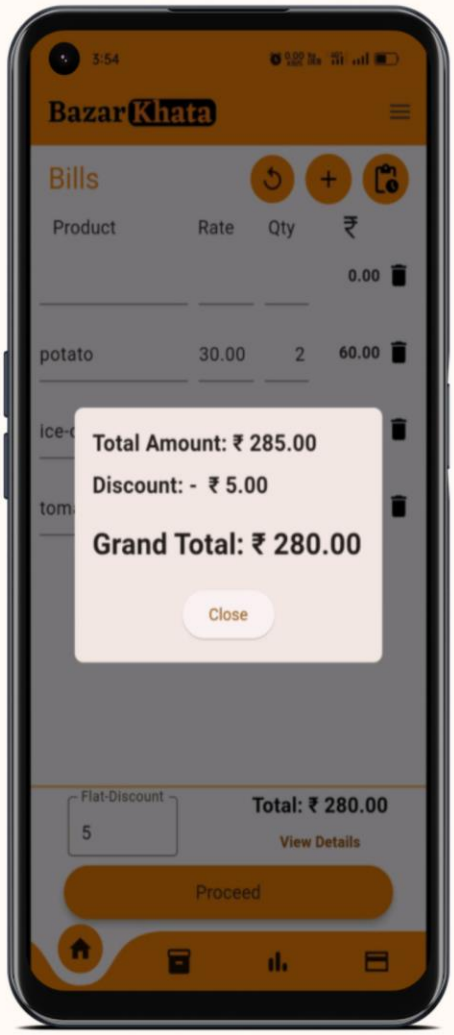
Home Screen

Filling Product Details

Pop Up before Deleting Product



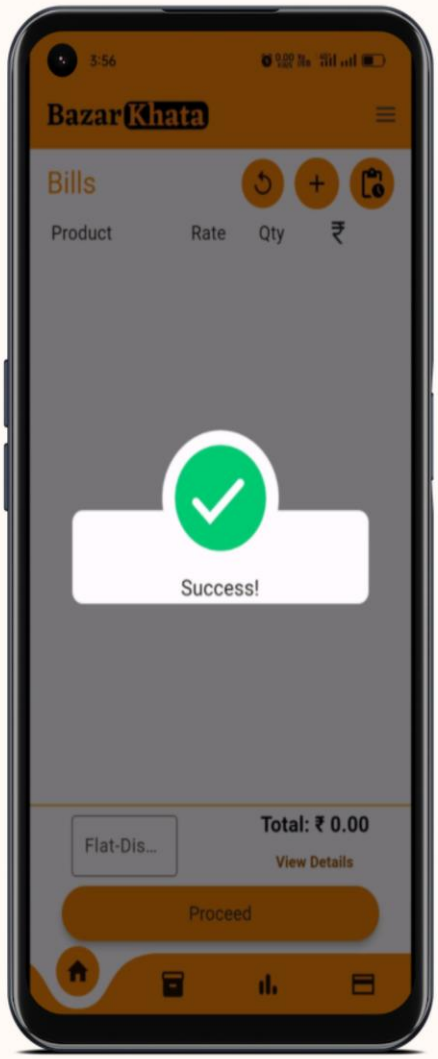
View total, Disc. & Grand total



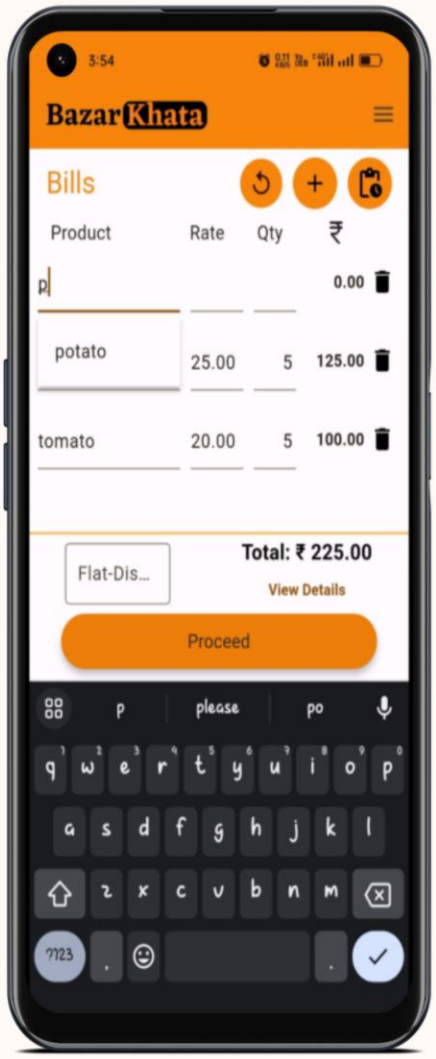
Cash and UPI Pay Option

QR code Image

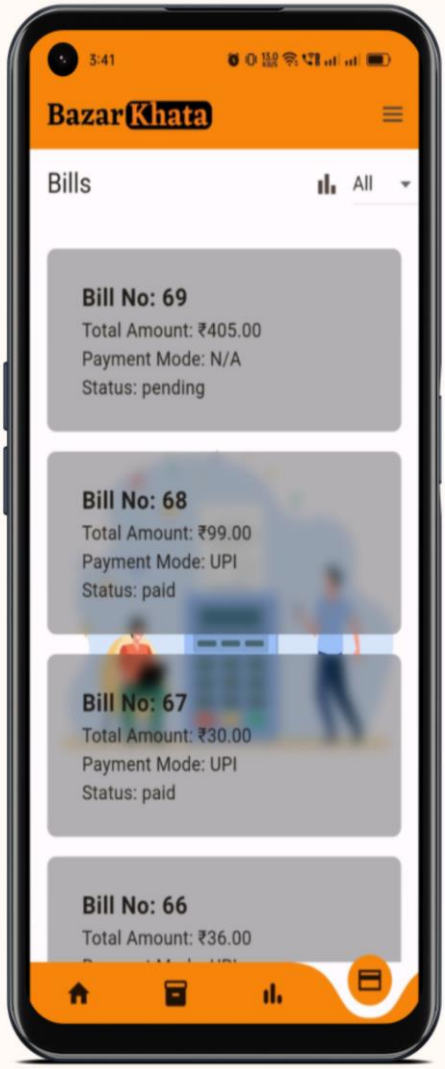
Payment done



Auto Suggestion



Bills


3:41
BazarKhata
Bills
All
Bill No: 69
Total Amount: ₹405.00
Payment Mode: N/A
Status: pending
Bill No: 68
Total Amount: ₹99.00
Payment Mode: UPI
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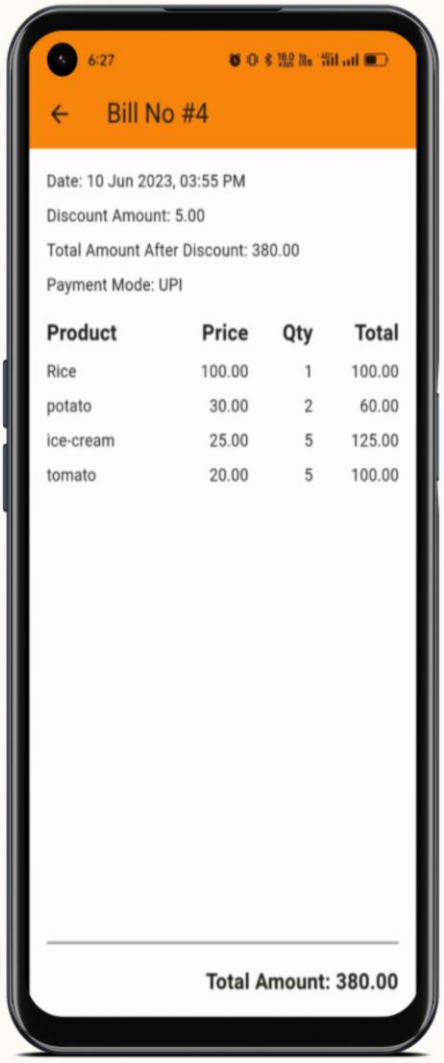
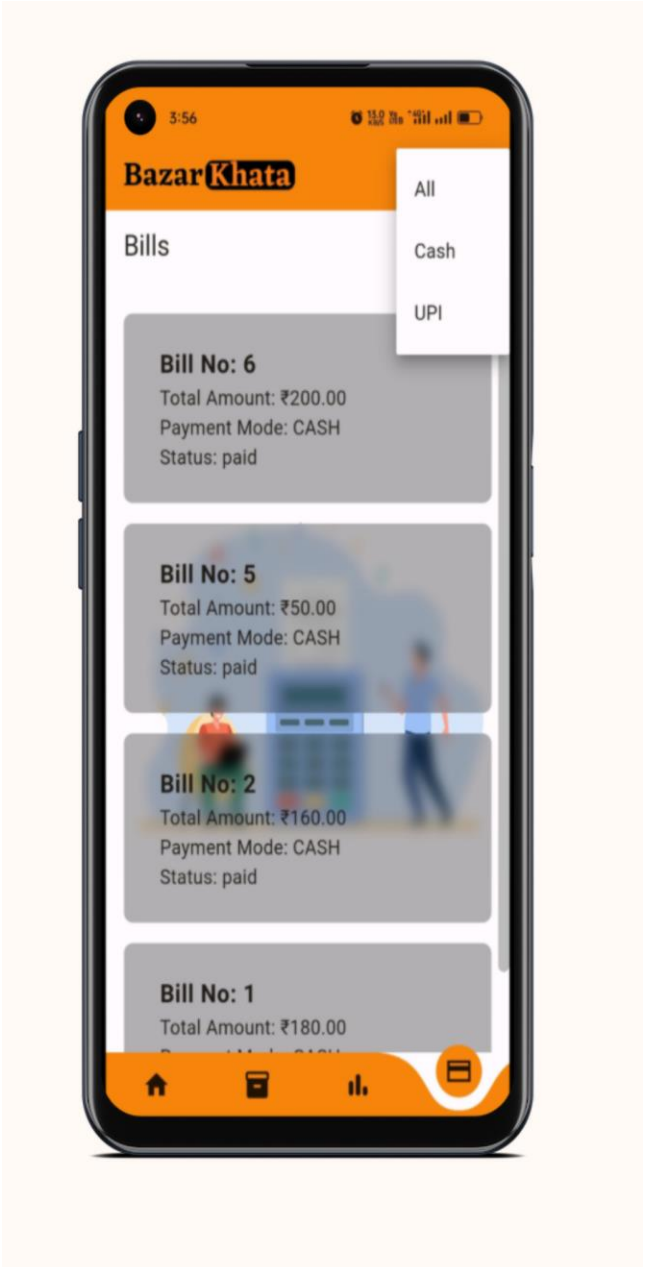
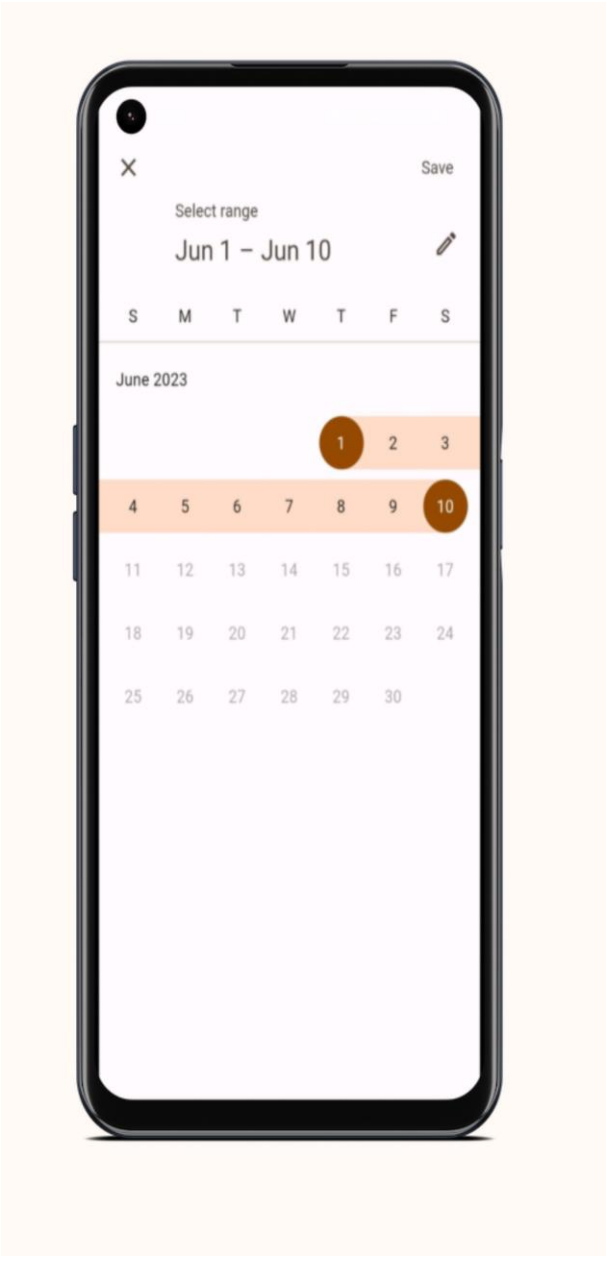
Total Amount: ₹36.00

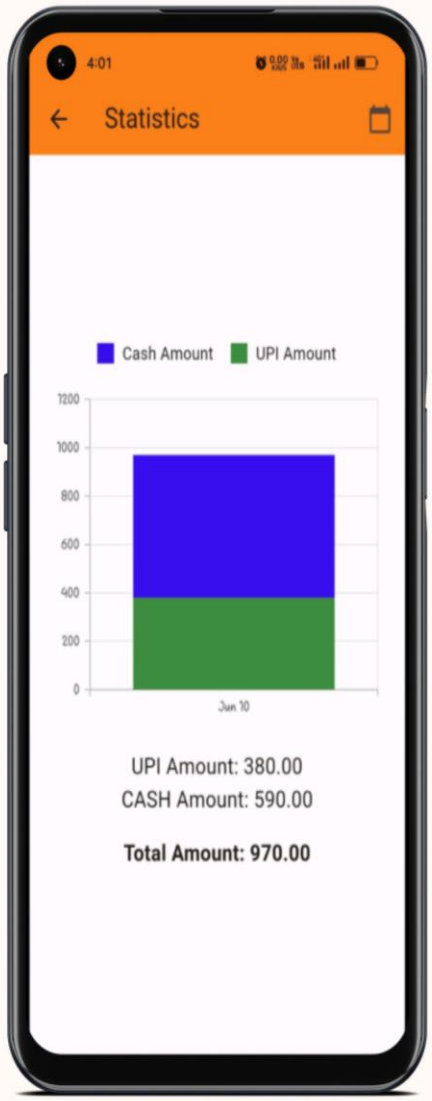

6:27
Bill No #4
Date: 10 Jun 2023, 03:55 PM
Discount Amount: 5.00
Total Amount After Discount: 380.00
Payment Mode: UPI
Product Price Qty Total
Rice 100.00 1 100.00
potato 30.00 2 60.00
ice-cream 25.00 5 125.00
tomato 20.00 5 100.00
Total Amount: 380.00

Sorting Bills

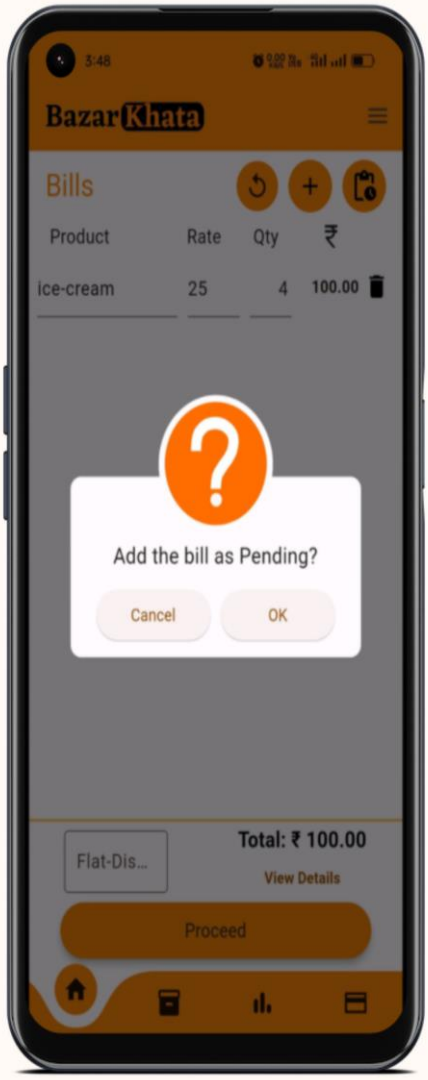


Statistics Page

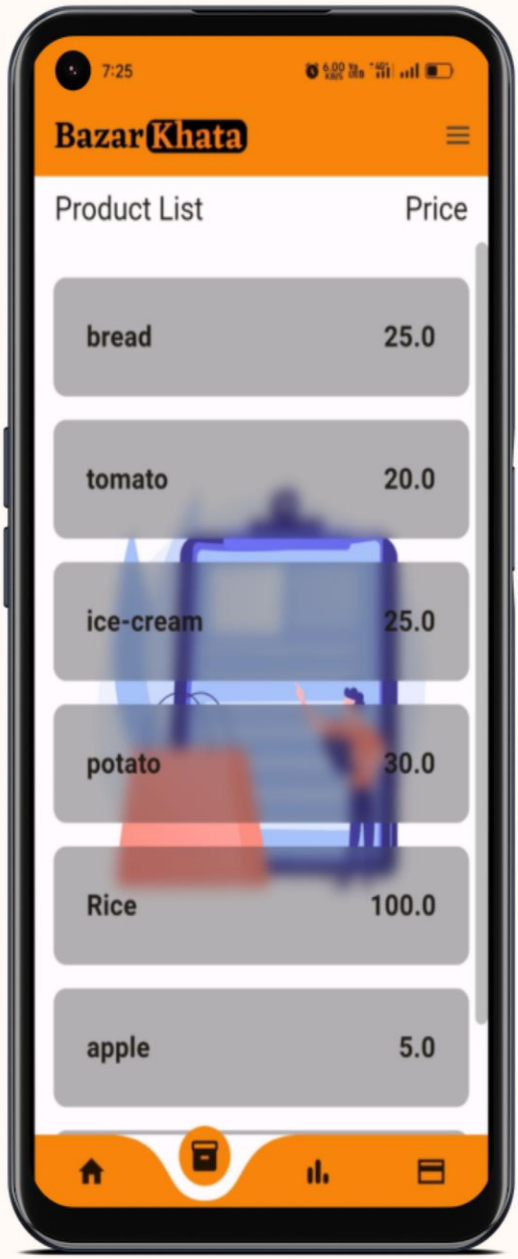




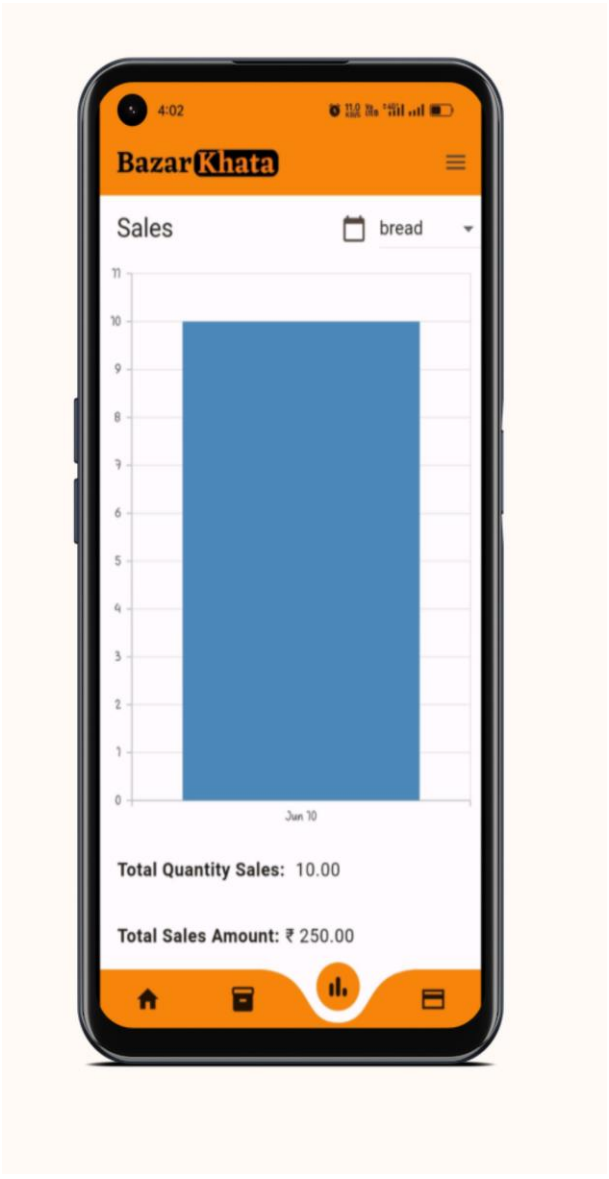
Pending Page



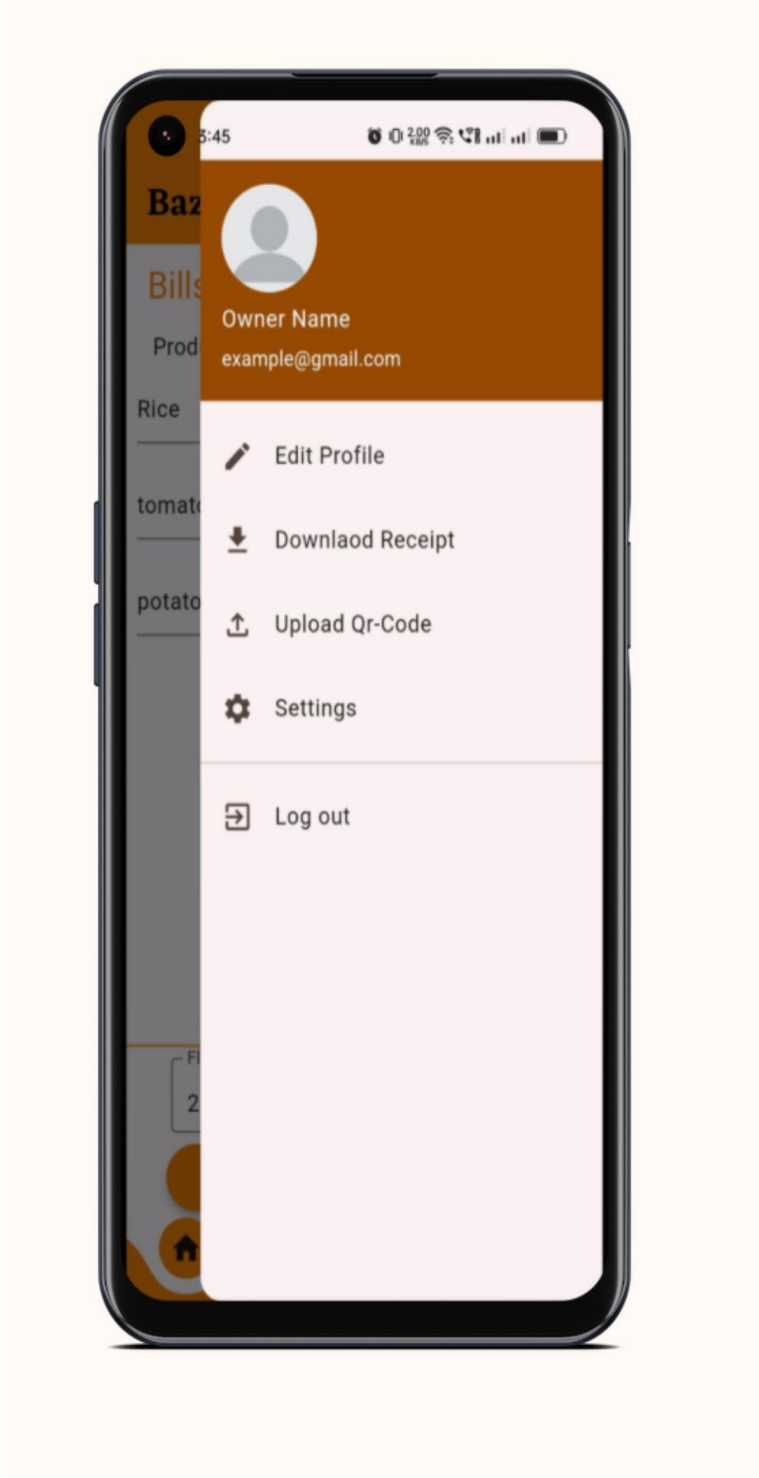
Product List



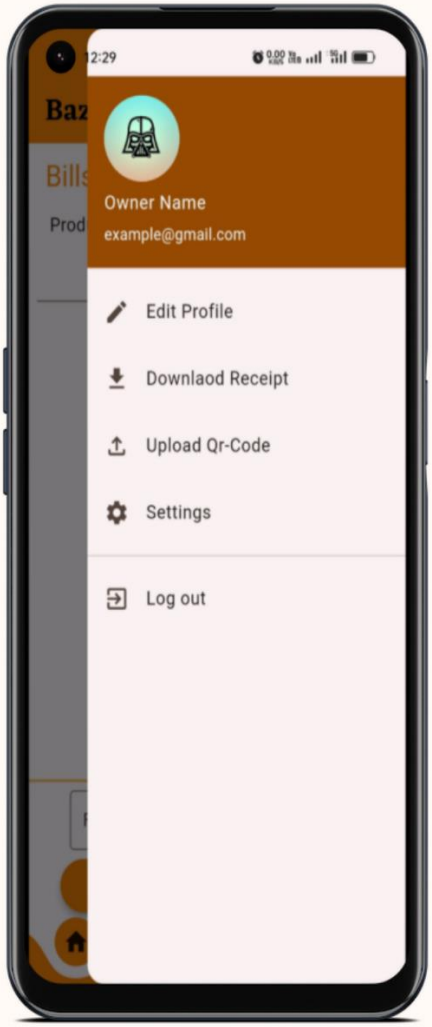
Product Sales



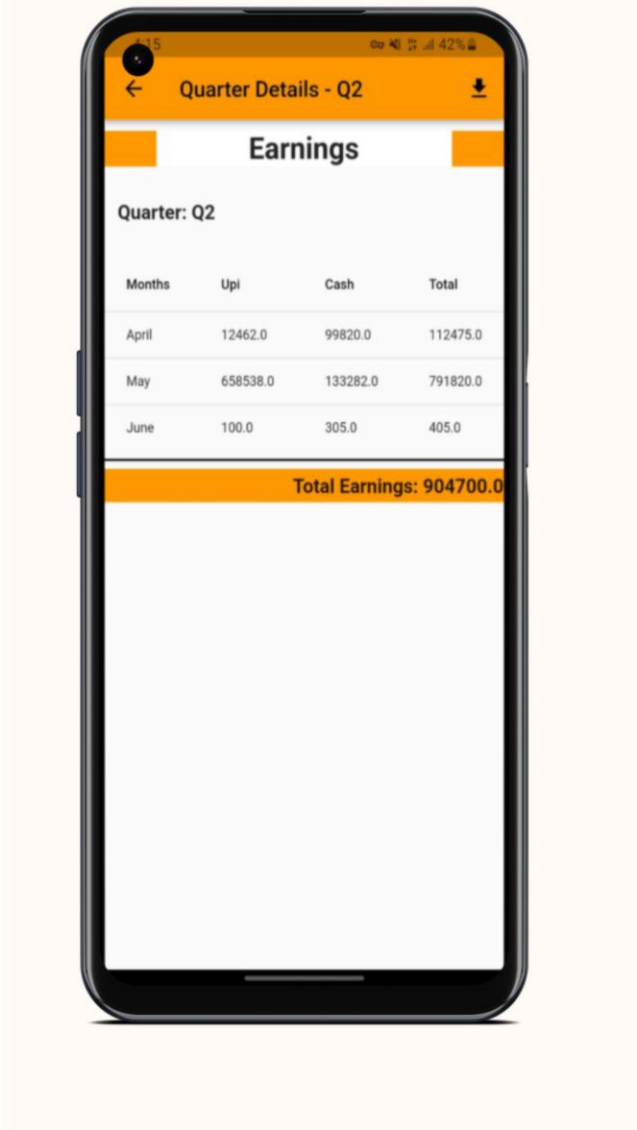
Drawer


Owner Name
example@gmail.com
Edit Profile
Downlaod Receipt
Upload Qr-Code
Settings
Log out

Edit Profile

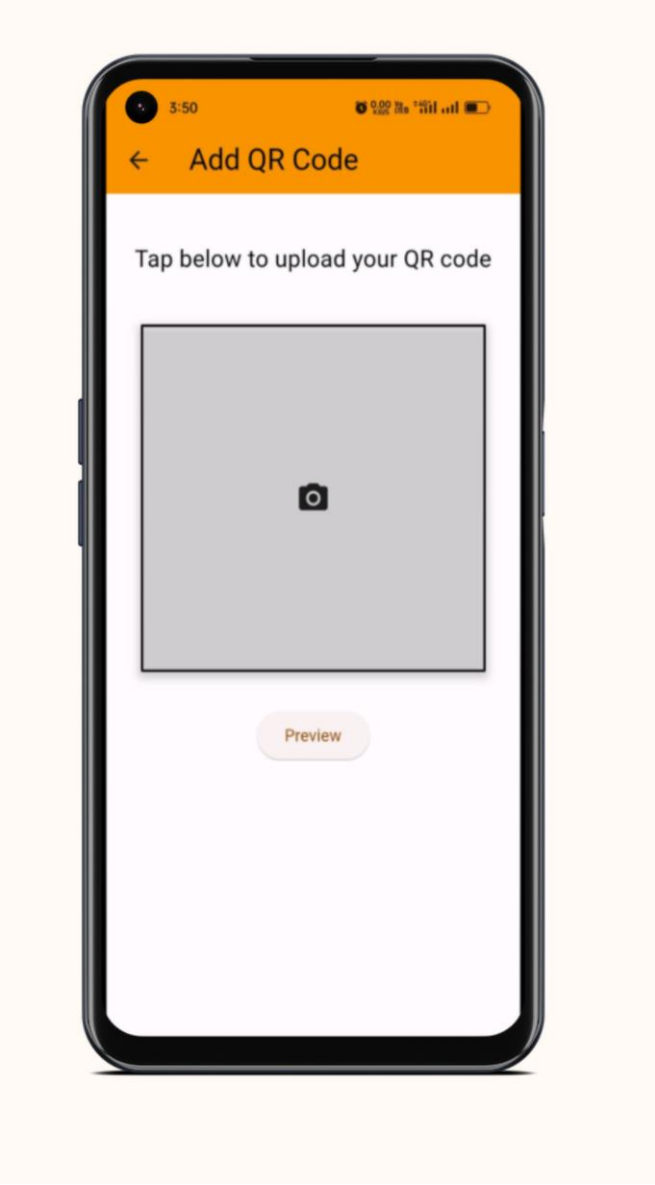


Earnings By Quarters



41%
50
Quarter Details - Q2
Tools
Mobile View
Share
PDF to Word
Edit on PC

Upload QR Code



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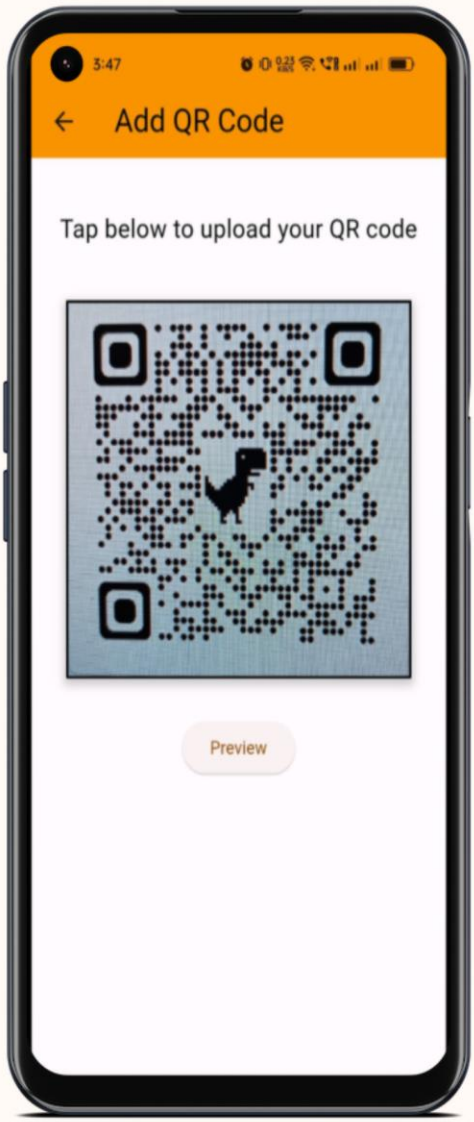
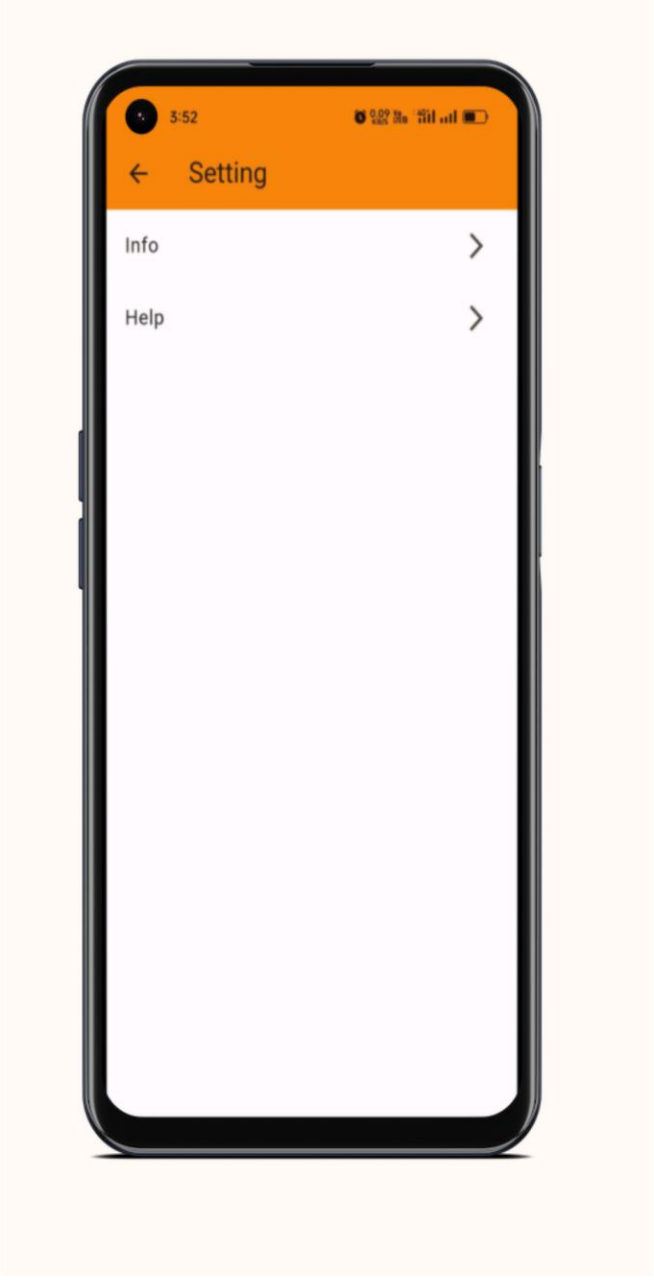
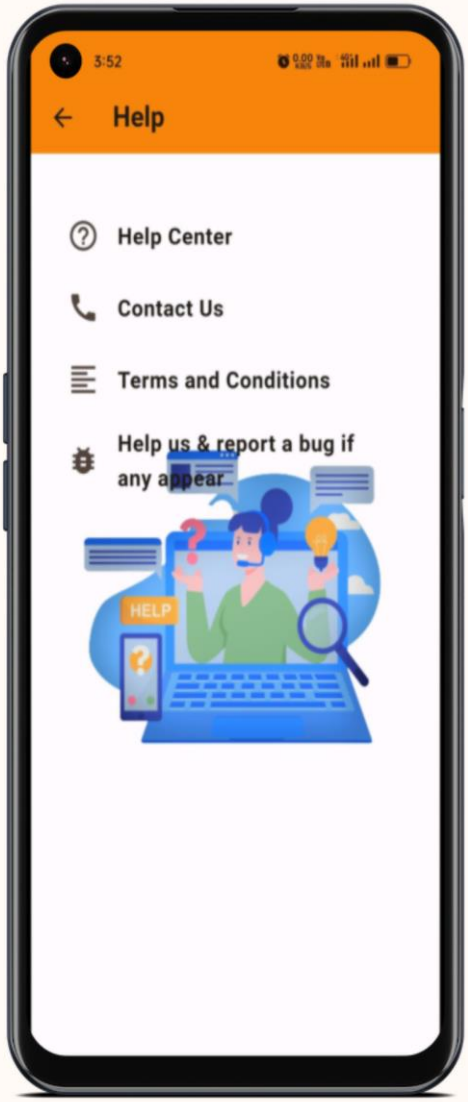
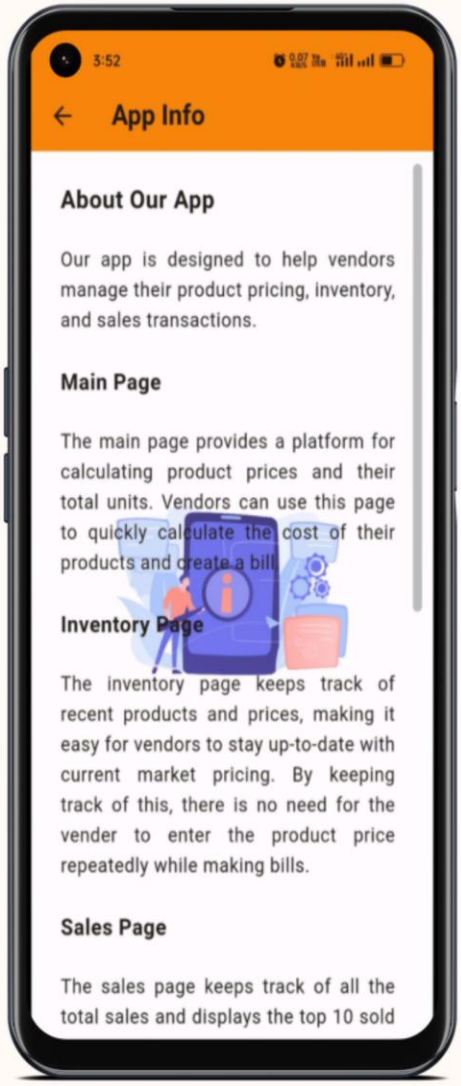
Crop Image
16:9
ORIGINAL
1:1
Crop


3:47
Add QR Code
Tap below to upload your QR code
Preview

Settings




3:52
Help
Help Center
Contact Us
Terms and Conditions
Help us & report a bug if any appear
HELP


3:52
App Info
About Our App
Our app is designed to help vendors manage their product pricing, inventory, and sales transactions.
Main Page
The main page provides a platform for calculating product prices and their total units. Vendors can use this page to quickly calculate the cost of their products and create a bill.
Inventory Page
The inventory page keeps track of recent products and prices, making it easy for vendors to stay up-to-date with current market pricing. By keeping track of this, there is no need for the vender to enter the product price repeatedly while making bills.
Sales Page
The sales page keeps track of all the total sales and displays the top 10 sold

Certifications Completed under Internship

Conclusions/Summary

One of the highlights of my internship was the opportunity to work with a new programming language. It was a thrilling experience to dive into unexplored areas and expand my technical skills. The supportive and collaborative culture at SoftMonks has played a crucial role in my learning journey. I never felt alone, as I was encouraged to interact, seek guidance, and collaborate with my colleagues.

In conclusion, my internship at SoftMonks has been a remarkable journey of growth, learning, and camaraderie. I will cherish the memories and lessons learned during this time, and I am looking forward to seeing where my newfound abilities and experiences will take me in the future.

Project Timeline/ Project Diary

25 January 2023 - 2 June 2023

- **Week 1:**
  - Introduction to flutter and dart Language.
  - Exploring features of flutter and its Libraries.
  - Knowing about the backend process and finding a suitable database.

- **Week 2:**
  - Writing simple code to make a demo app.
  - Learning about navigation of a page through an app.
  - Connecting and storing data in the database (sqflite)

- **Week 3:**
  - Going through the requirements and planning accordingly.
  - Making of homepage interface which include: -
    - Appbar.
    - Text Field for product, price, quantity.
    - Total (at bottom)
  - Add button to add new row.

- **Week 4:**
  - Adding some more features on home page: -
    - Slide drawer
    - Added one more row to calculate price X quantity.
  - Added payment button: -
    - Cash
    - UPI
  - Discount

- **Week 5:**
  - Adding some more features on home page: -
    - Delete row.
    - Arrange the payment button in the proper manner.
    - Users can change or add an avatar (profile pic) in the slide drawer.
    - User can change QR code (image)
    - Add trademark or gif animation on payment done (on click of Cash and UPI)

- Refresh home page on payment done.

- **Week 6:**
    - Change in Home page: -
        - Add heading at top (Product, price, quantity).
        - New rows of product, price and quantity should be added from top.
        - Arrange the payment buttons.
        - Added Refresh button
        - Added view details (to show a small bill)

- **Week 7:**
    - Log in / Sign up Interface.
    - Discussed and made a logo.
    - Discuss and come up with a proper name.
    - Made an animation for splash screen.

- **Week 8:**
    - After scouting, the best we got for the local database is sqflite.
    - Stored the bill details.

- **Week 9:**
    - Started working on the Inventory page.
    - Tried storing only unique products with updated price
    - As we couldn't get success in it, we moved on to login details storage.

- **Week 10:**
    - Stored the signup details to local DB (Suppose to be store it in server, change in plans.)
    - Made a transaction interface.

- **Week 11:**
    - Added the whole bill in transaction.
    - On click of the bill, show entire details.
    - Rearrange the bill format.

- **Week 12:**
    - With new requirements: -
        - Add the pending button on the home page.
        - Store pending bills in the database.
        - Modified the table by adding a status column in the transaction page.

- **Week 13:**
    - Made a pending bill interface and tried making the pending bills editable.

- **Week 14:**
    - Change the bill status from pending to paid and should update in the database.

- **Week 15:**
    - Added filter (payment type) in transaction page.
    - Added graph (Sales on payment type)

- **Week 16:**
    - Back to the inventory page to store unique products with updated prices.
    - Added validation at home page.

- **Week 17:**
    - With new requirements: -
        - Added suggestion list for product (Show products stored in database as suggestion list)
        - Auto fill price on selecting the product.

- **Week 18:**
    - Added same features to pending bill as home page
    - Made sale page.
    - Added weekly sale (top 5) graph.
    - Stacked on another graph based on the individual product sale with the time period.

- **Week 19:**
    - Change in interface in all pages.
    - PDF download
    - Test the whole app thoroughly and work on UI/UX.
    - Did some final changes in the app.

My Reflections/Experiences of Internship

During my internship at SoftMonks, I was fortunate to have valuable and life-changing expertise. Every day at SoftMonks brings new challenges that have helped me grow professionally and personally. The dynamic environment here forces me to step outside of my comfort zone and explore new possibilities on a regular basis.

One of the highlights of my internship was the opportunity to work with a new programming language. It was a thrilling experience to dive into unexplored areas and expand my technical skills. The supportive and collaborative culture at SoftMonks has played a crucial role in my learning journey. I never felt alone, as I was encouraged to interact, seek guidance, and collaborate with my colleagues.

The emphasis on continuous learning and development at SoftMonks has fueled my curiosity and has sparked my interest and generated a thirst for knowledge. The exposure to real-world projects in the industry has been invaluable, allowing me to not only learn theoretical concepts but also apply them in a practical setting. This hands-on experience has helped me in shaping my understanding of the software development landscape.

I am grateful for the knowledge and skills I have gained through my internship at SoftMonks. It has laid a strong foundation for my future career aspirations. I feel a sense of pride and accomplishment in being a part of the SoftMonks team.

References

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