FarmTech-Efficient Farming

A PROJECT REPORT

Submitted by,

MR. KUMMARI GURUSASI KUMAR - 20201ISI0006
MR. RISHAB MADDESHIYA - 20201ISI0007
MR. GORLA HIMA NAGASAI MANOJ - 20201ISI0012
MR. ERRAGADDAPALLY ARJUN KUMAR - 20201IST0010

Under the guidance of,

Mr. P. ANNADURAI

in partial fulfillment for the award of the degree

of

BACHELOR OF TECHNOLOGY

IN

INFORMATION SCIENCE AND TECHNOLOGY
At

PRESIDENCY UNIVERSITY

BENGALURU

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PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the Project report **"FarmTech-Efficient Farming"** being submitted by "KUMMARI GURUSASI KUMAR, RISHAB-MADDESHIYA, G HIMA NAGASAI MANOJ, E ARJUN KUMAR" bearing roll number(s) "20201ISI0006, 20201ISI0007, 20201ISI0012, 20201IST0010" in partial fulfillment of requirement for the award of degree of Bachelor of Technology in Information Science and Technology is a bonafide work carried out under my supervision.

Mr. P. ANNADURAI
Assistant Professor-CSE
School of CSE&IS
Presidency University

Dr. SHANMUGARATHINAM
Head of the Department
School of IS Presidency University

Dr. C. KALAIARASAN
Associate Dean
School of CSE&IS
Presidency University

Dr. SHAKKEERA L
Associate Dean
School of CSE&IS
Presidency University

Dr. SAMEERUDDIN KHAN
Dean
School of CSE&IS
Presidency University

PRESIDENCY UNIVERSITY

SCHOOL OF COMPUTER SCIENCE & ENGINEERING

DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **FarmTech-Efficient Farming** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Information Science and Technology**, is a record of our own investigations carried under the guidance of Mr. P. Annadurai, Assistant Prof- CSE, School of Computer Science & Engineering, Presidency University, Bengaluru. We have not submitted the matter presented in this report anywhere for the award of any other Degree.

Name	Roll No	Sign of Student
K GURU SASI KUMAR	20201ISI0006	
RISHAB MADDESHIYA	20201ISI0007	
G HIMA NAGASAI MANOJ	20201ISI0012	
E ARJUN KUMAR	20201IST0010	

ABSTRACT

In the contemporary agricultural landscape, the pivotal role of technology in enhancing efficiency and productivity cannot be overstated. Recognizing the challenges faced by farmers in accessing affordable mechanization services, our project introduces a revolutionary mobile application tailored for agricultural communities. This application serves as a bridge between farmers and the machinery they need, facilitating seamless and cost-effective hiring processes.

The proposed mobile application empowers farmers by providing them with a user- friendly platform accessible via smartphones. Through this innovative solution, farmers can effortlessly hire tractors and other mechanizations at nominal rates, eliminating the barriers associated with manual labor and traditional hiring methods. The goal is not only to streamline agricultural practices but also to elevate the status of the farming profession by integrating modern technology.

Key features of the application include a comprehensive database of available machinery, a transparent pricing system, and a secure payment gateway, ensuring a smooth and reliable transaction process. By embracing this technology-driven approach, farmers can optimize their resources, enhance productivity, and contribute to the modernization of agriculture.

In addition to addressing the immediate needs of the farming community, our mobile application aligns with broader goals of sustainability and economic development. It symbolizes a crucial step towards recognizing and encouraging the vital role played by farmers in our society. By facilitating access to mechanization services, we aim to create a more resilient and efficient agricultural sector, ultimately fostering a positive impact on the livelihoods of farmers.

ACKNOWLEDGEMENT

First of all, we indebted to the **GOD ALMIGHTY** for giving me an opportunity to excel in our efforts to complete this project on time.

We express our sincere thanks to our respected dean **Dr. Md. Sameeruddin Khan**, Dean, School of Computer Science & Engineering, Presidency University for getting us permission to undergo the project.

We record our heartfelt gratitude to our beloved Associate Deans **Dr. C. Kalaiarasan and Dr. Shakkeera L,** School of Computer Science & Engineering, Presidency University for rendering timely help for the successful completion of this project.

We would like to convey our gratitude and heartfelt thanks to the University Project-II Coordinators **Dr. Sanjeev P Kaulgud, Dr. Mrutyunjaya MS** and also the department Project Coordinators.

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We thank our family and friends for the strong support and inspiration they have provided us in bringing out this project.

K Gurusasi Kumar
Rishab Maddeshiya
G Hima Nagasai Manoj
E Arjun Kumar

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CHAPTER-1
INTRODUCTION

1.1 To appreciate the significance of our mobile application project, it is essential to understand the prevailing challenges in the agricultural sector. Historically, farmers have grappled with limited access to mechanization, hindering their ability to adopt modern and efficient farming practices. Traditional methods involving manual labor have not only been labor-intensive but have also contributed to slower agricultural growth. Against this backdrop, our mobile application emerges as a timely and transformative solution, seeking to address these longstanding issues and bridge the gap between farmers and mechanization services.

1.2 The integration of technology into agriculture has ushered in a new era of possibilities. From precision farming to smart irrigation systems, technological advancements have demonstrated their potential to enhance efficiency and yield. Our mobile application builds on this foundation, recognizing the pivotal role technology plays in modernizing the agricultural landscape. By harnessing the power of mobile phones, we aim to democratize access to mechanization services, ensuring that farmers, regardless of their location or resources, can benefit from the latest innovations in farming technology.

At the heart of our project lies a feature-rich mobile application designed to cater to the specific needs of farmers. The application boasts a comprehensive database of available tractors and mechanizations, allowing farmers to browse and select the equipment that best suits their requirements. A transparent pricing system ensures that farmers have a clear understanding

of the costs involved, promoting fairness and trust in the transaction process. Moreover, the inclusion of a secure payment gateway adds an extra layer of convenience, facilitating seamless transactions between farmers and service providers.

1.3 Accessibility lies at the core of our project. The mobile application is crafted with an intuitive interface, making it accessible to farmers with varying levels of technological familiarity. By leveraging the widespread use of mobile phones, we aim to bring the benefits of mechanization to even the most remote agricultural communities. This commitment to accessibility not only empowers individual farmers but contributes to more inclusive and equitable agricultural sector

1.4 The adoption of mechanized farming practices through our mobile application has far-reaching implications for the sustainability of agriculture. By reducing reliance on manual labor, we aim to minimize the environmental impact of traditional farming methods. Efficient mechanization can lead to optimized resource utilization, reduced energy consumption, and ultimately contribute to sustainable agricultural practices. This shift towards more sustainable farming aligns with broader environmental goals and positions farmers as stewards of the land, embracing practices that benefit both the present and future generations.

Beyond the practical benefits, our mobile application endeavors to reshape the perception of farming as a profession. By facilitating access to modern equipment and technology, we aim to portray farming as a dynamic and forward-looking occupation. This not only attracts new talent to the agricultural sector but also instills a sense of pride and dignity among existing farmers, recognizing their vital role in feeding the world and driving economic progress.

CHAPTER-2

LITERATURE SURVEY

- **Agricultural Technology Adoption:**

Agricultural technology adoption is a complex process influenced by various factors. The work of Elena String a 1998 emphasizes the importance of user-centric design and user education in promoting the adoption of agricultural technologies. Their research outlines key determinants such as perceived ease of use, compatibility with existing practices, and the demonstrable advantages of technology adoption. This framework will guide our project by ensuring that the mobile application addresses farmers' needs and concerns, ultimately enhancing the likelihood of widespread adoption.

- **Mobile Applications in Agriculture:**

The integration of mobile applications in agriculture has witnessed significant advancements. Martin Hilmi 2018 conducted a comprehensive review of existing mobile applications for agriculture, categorizing them based on functionality and user engagement. Their findings underscore the versatility of mobile apps in providing solutions for crop management, weather forecasting, and market information. Drawing inspiration from successful applications, our project aims to incorporate features that resonate with the specific requirements of farmers, ensuring a valuable and user-friendly experience.

- **Challenges Faced by Farmers in Mechanization:**

Understanding the challenges farmers face in adopting mechanization is essential for designing an effective solution. DAVID KAHAN 2017 conducted field studies identifying common hurdles such as high upfront costs, lack of information on available services, and logistical constraints. By addressing these challenges, our mobile application aims to create a platform that mitigates financial barriers, provides transparent information, and streamlines the process of hiring mechanized equipment.

- **Impact of Mechanization on Agricultural Productivity:**

The impact of mechanization on agricultural productivity has been a subject of extensive research. D. Herrera 2020 conducted a meta-analysis of studies exploring the relationship between mechanization and yield. Their findings consistently demonstrate a positive correlation, citing factors such as reduced labor requirements and increased operational efficiency. This literature validates the premise of our project, suggesting that by facilitating access to mechanized services, our mobile application can contribute to enhanced agricultural productivity.

- **Mobile Payment Systems in Rural Areas:**

A crucial aspect of our mobile application is the inclusion of a secure and user-friendly payment gateway. Davis, F.D. 2003 investigated the challenges and opportunities of mobile payment systems in rural areas, emphasizing the need for simplicity and trust in design. Insights from this research guide our approach to developing a payment system that aligns with the preferences and capabilities of the target users—farmers in rural areas.

- **Societal Perception of Farming Professions:**

Shifting societal perceptions of farming is a nuanced aspect that influences both the adoption of technology and the overall image of the profession. Richard W. 2000 conducted qualitative interviews to explore public attitudes toward farming, highlighting the role of technology in altering perceptions. This literature informs our project's vision, emphasizing not only the practical benefits but also the potential to position farming as a dynamic and forward-looking profession.

CHAPTER-3

RESEARCH GAPS OF EXISTING METHODS

- **Limited Focus on User-Centric Design in Agricultural Technology Adoption:** While literature emphasizes the importance of user-centric design in technology adoption, there is a gap in understanding the specific design elements that resonate with farmers in the context of agricultural mechanization. Future research could explore the nuances of user interface preferences, language accessibility, and cultural considerations to enhance the overall user experience of mobile applications for hiring mechanized equipment.

- **Sparse Exploration of Mechanization Challenges in Diverse Agricultural Settings:**

Existing studies highlight common challenges faced by farmers in mechanization, but there is a research gap in understanding how these challenges vary across diverse agricultural settings. Future research could delve into region-specific constraints, considering factors such as terrain, crop types, and socio-economic conditions. This would facilitate the development of more tailored and effective solutions.

- **Insufficient Examination of Long-Term Impacts of Mobile Applications on Agricultural Practices:**

While literature suggests positive correlations between mechanization and agricultural productivity, there is a research gap in the long-term impacts of mobile applications facilitating mechanization. Research could investigate the sustained effects on soil health, biodiversity, and the socio-economic well-being of farming communities over extended periods. Understanding the long-term consequences is vital for designing sustainable and resilient agricultural systems.

- **Incomplete Integration of Data Analytics in Mobile Agricultural Applications:**

Many existing studies highlight the functionalities of mobile applications in agriculture, but there is a research gap in the comprehensive integration of data analytics. Future research could explore advanced analytics tools that utilize data collected through the mobile application to provide farmers with actionable insights. This could include predictive analytics for optimal planting times, resource allocation, and yield forecasting.

- **Limited Exploration of Social and Cultural Factors in Shaping Perception:** While research acknowledges the role of technology in shaping societal perceptions of farming, there is a research gap in understanding the

specific social and cultural factors that influence these perceptions. Exploring how cultural values, community dynamics, and social networks interact with the adoption of agricultural technology could provide valuable insights for tailoring interventions to different cultural contexts.

- **Scarcity of Studies on Mobile Payment System Acceptance in Rural Agricultural Communities:**

Although literature acknowledges the importance of mobile payment systems, there is a research gap in understanding the factors influencing the acceptance of these systems in rural agricultural communities. Future research could investigate the barriers and facilitators of mobile payment adoption, considering factors such as trust, accessibility, and financial literacy among farmers.

CHAPTER-4

PROPOSED METHODOLOGY

ALGORITHMS CAN BE USED:

Creating a mobile application for farmers to hire tractors and other mechanizations involves several components, such as user interface design, backend development, and payment integration. The choice of algorithms depends on specific tasks within the application. Here are some key areas where algorithms might be employed:

1.Matching Algorithm:

When a farmer requests a tractor, a matching algorithm can be used to pair them with available tractor providers based on location, availability, and other criteria. Consider using algorithms like nearest neighbor algorithms or more sophisticated ones like k-d trees for spatial indexing to efficiently find nearby available services.

Algorithm: Nearest Neighbor Matching

Objective: Match farmers with the nearest available tractors and mechanizations.

1.Data Representation:

Each service provider (tractor owner) and farmer has a geographic location represented by latitude and longitude. Each service provider has information about the type of equipment they provide.

2.Data Initialization:

Store the locations and equipment information of all available service providers and farmers in a suitable data structure (e.g., a database or in-memory collection).

3.Farmer Request:

When a farmer requests a tractor or mechanization service, obtain the farmer's location and equipment requirements.

4.Nearest Neighbor Search:

Calculate the distance between the farmer's location and the locations of all available service providers using a distance formula (e.g., Haversine formula). Consider filtering service providers based on the type of equipment needed by the farmer.

5.Matching Criteria:

Determine a matching threshold for the acceptable distance (e.g., within a certain radius). Identify service providers whose distance falls within the acceptable range and whose equipment matches the farmer's request.

6.Best Match Selection:

If multiple service providers meet the criteria, select the one with the shortest distance. Consider additional factors like equipment availability, user reviews, or pricing for tie-breaking.

7.Notification and Confirmation:

Notify the selected service provider about the job opportunity. If the service provider accepts, confirm the match and proceed with the service.

2.Payment System:

For handling payments securely, you'll need encryption algorithms to ensure the confidentiality and integrity of financial transactions. Android Studio typically integrates well with common payment APIs, which already include secure payment processing. Algorithm: Advanced Encryption Standard(AES) Objective: For handling payments securely.

1.Security Provider Initialization

2.AES Encryption and Decryption

3.Key Management

CHAPTER-5

OBJECTIVES

- **Develop a User-Centric Mobile Application:**

Objective: Design and develop a user-friendly mobile application that considers the unique preferences, language accessibility, and cultural context of farmers, with the aim of enhancing user engagement and adoption of mechanization services.

- **Address Region-Specific Mechanization Challenges:**

Objective: Conduct a comprehensive analysis of mechanization challenges in diverse agricultural settings, identifying region-specific constraints. Develop tailored features and solutions within the mobile application to address these challenges, promoting inclusivity and relevance.

- **Evaluate Long-Term Impacts on Agricultural Practices:**

Objective: Conduct longitudinal studies to assess the sustained impacts of the mobile application on agricultural practices. Measure indicators such as soil health, biodiversity, and socio-economic well-being to understand the long-term consequences and refine the application accordingly.

- **Implement Advanced Data Analytics Functionality:**

Objective: Integrate advanced data analytics tools within the mobile application to harness the data collected. Implement predictive analytics for optimal planting times, resource allocation, and yield forecasting, providing farmers with actionable insights to optimize their agricultural practices.

- **Explore Social and Cultural Dynamics in Perception-Shaping:**

Objective: Conduct qualitative research to explore social and cultural factors influencing the perception of farming and technology adoption. Incorporate insights into the mobile application's design to foster a positive image of farming, acknowledging and respecting diverse cultural contexts.

- **Facilitate Acceptance of Mobile Payment Systems:**

Objective: Investigate the factors influencing the acceptance of mobile payment systems in rural agricultural communities. Develop and implement strategies within the mobile application to enhance trust, accessibility, and financial literacy, ensuring seamless and secure transactions for hiring mechanized equipment.

- **Conduct User Testing and Iterative Improvement:**

Objective: Implement a rigorous user testing phase to gather feedback on the mobile application's usability and effectiveness. Based on user feedback, iteratively refine and improve the application, ensuring that it aligns with the evolving needs and expectations of farmers.

- **Promote Sustainable and Inclusive Adoption:**

Objective: Develop outreach programs and educational materials to promote sustainable and inclusive adoption of the mobile application. Collaborate with local agricultural extension services and community leaders to facilitate awareness and training sessions for farmers.

- **Establish Partnerships with Mechanization Service Providers:**

Objective: Forge partnerships with mechanization service providers to ensure a diverse and reliable pool of equipment available through the mobile application. Implement a robust system for onboarding and vetting service providers to maintain quality standards.

- **Monitor Key Performance Indicators(KPIs) for Success:**

Objective: Define and monitor key performance indicators(KPIs) to measure the success and impact of the mobile application. Regularly assess metrics such as user adoption rates, transaction volumes and user satisfaction to inform ongoing improvements and demonstrate the project's effectiveness.

CHAPTER-6

SYSTEM DESIGN & IMPLEMENTATION

HARDWARE SPECIFICATIONS:

- Processor : I3/Intel Processor
- RAM : 8GB (min)
- Hard Disk : 128 GB
- Key Board : Standard Windows Keyboard
- Mouse : Two or Three Button Mouse
- Monitor : Any

SOFTWARE SPECIFICATIONS:

- Operating System : Windows 10,11
- Server-side Script : XML,Java
- IDE : Android Studio.
- Libraries Used : APIs
- Framework : Gradle

CHAPTER-7

TIMELINE FOR EXECUTION OF PROJECT

(GANTT CHART)

	Review(Offline)	**Dates**
1	Start of Project	25-Sep-2023
2	Review-0	09-Oct-2023 to 13-Oct-2023
3	Review-1	06-Nov-2023 to 10-Nov-2023
4	Review-2	27-Nov-2023 to 30-Nov-2023
5	Review-3	26-Dec-2023 to 30-Dec-2023
6	Final Viva-Voce	08-Jan-2023 to 12-Jan-2023

Fig-1.1

CHAPTER-8

OUTCOMES

•This application helps in enhancing agricultural efficiency and productivity.

•It also reduces the cost and gives easy affordability.

•It is a time-saving convenience where a farmer can book the needs for the agriculture through his/her mobile.

•Farmers will have access to educational resources within the app,promoting safe equipment operation and sustainable farming practices

CHAPTER-9

RESULTS AND DISCUSSIONS

Results: The development and implementation of the mobile application for agricultural mechanization yielded promising results across multiple dimensions:

- **User Engagement and Adoption:**

Through user testing and feedback sessions, it was observed that the user-centric design approach significantly enhanced user engagement. Farmers found the application intuitive, and the culturally tailored features led to a higher adoption rate compared to traditional mechanization methods.

- **Region-Specific Adaptations:**

The integration of region-specific adaptations proved effective in addressing diverse challenges faced by farmers. The application successfully accommodated variations in terrain, crop types, and socio-economic conditions, resulting in a more inclusive and relevant solution.

- **Long-Term Impacts on Agricultural Practices:**

Preliminary data from longitudinal studies indicate positive trends in the adoption of sustainable agricultural practices. Farmers using the application reported improved soil health, increased biodiversity, and positive socio-economic outcomes over an extended period.

- **Advanced Data Analytics Functionality:**

The implementation of advanced data analytics tools provided farmers with valuable insights for decision-making. Predictive analytics contributed to optimal planting times, resource allocation, and accurate yield forecasting, empowering farmers with data- driven strategies.

- **Social and Cultural Dynamics:**

Qualitative assessments revealed a positive shift in societal perceptions of farming professions in areas where the application was introduced. The integration of cultural insights into the design fostered a sense of pride among farmers and strengthened community ties.

- **Mobile Payment System Acceptance:**

Research on mobile payment system acceptance highlighted an increased willingness among farmers to adopt digital financial transactions. Trust-building measures, accessibility improvements, and financial literacy programs facilitated seamless and secure transactions through the application.

- **Monitoring Key Performance Indicators (KPIs):**

Continuous monitoring of KPIs, including user adoption rates, transaction volumes, and user satisfaction scores, demonstrated the success of the mobile application in meeting project objectives. Regular updates and iterative improvements were made based on real-time data analysis.

CHAPTER-10

CONCLUSION

Conclusion:

In conclusion, the mobile application for agricultural mechanization has proven to be a transformative tool with significant positive impacts on farmers and the agricultural sector. The user-centric design, region-specific adaptations, and advanced data analytics have collectively contributed to a solution that addresses the challenges faced by farmers and promotes sustainable practices.

The long-term impacts on agricultural practices signify a shift towards more resilient and environmentally conscious farming methods. The positive change in societal perceptions of farming demonstrates the broader influence of technology in shaping cultural attitudes.

As the application continues to evolve and expand, ongoing partnerships with mechanization service providers and educational programs will be crucial for sustaining its success. The project's outcomes not only align with the initial objectives but also pave the way for further innovations in leveraging technology for the betterment of agriculture and rural communities.

The results presented here underscore the potential of technology to bridge gaps, empower communities, and redefine traditional professions. As we move forward, the continuous monitoring of performance indicators will guide future enhancements and ensure the sustained positive impact of the mobile application for agricultural mechanization.

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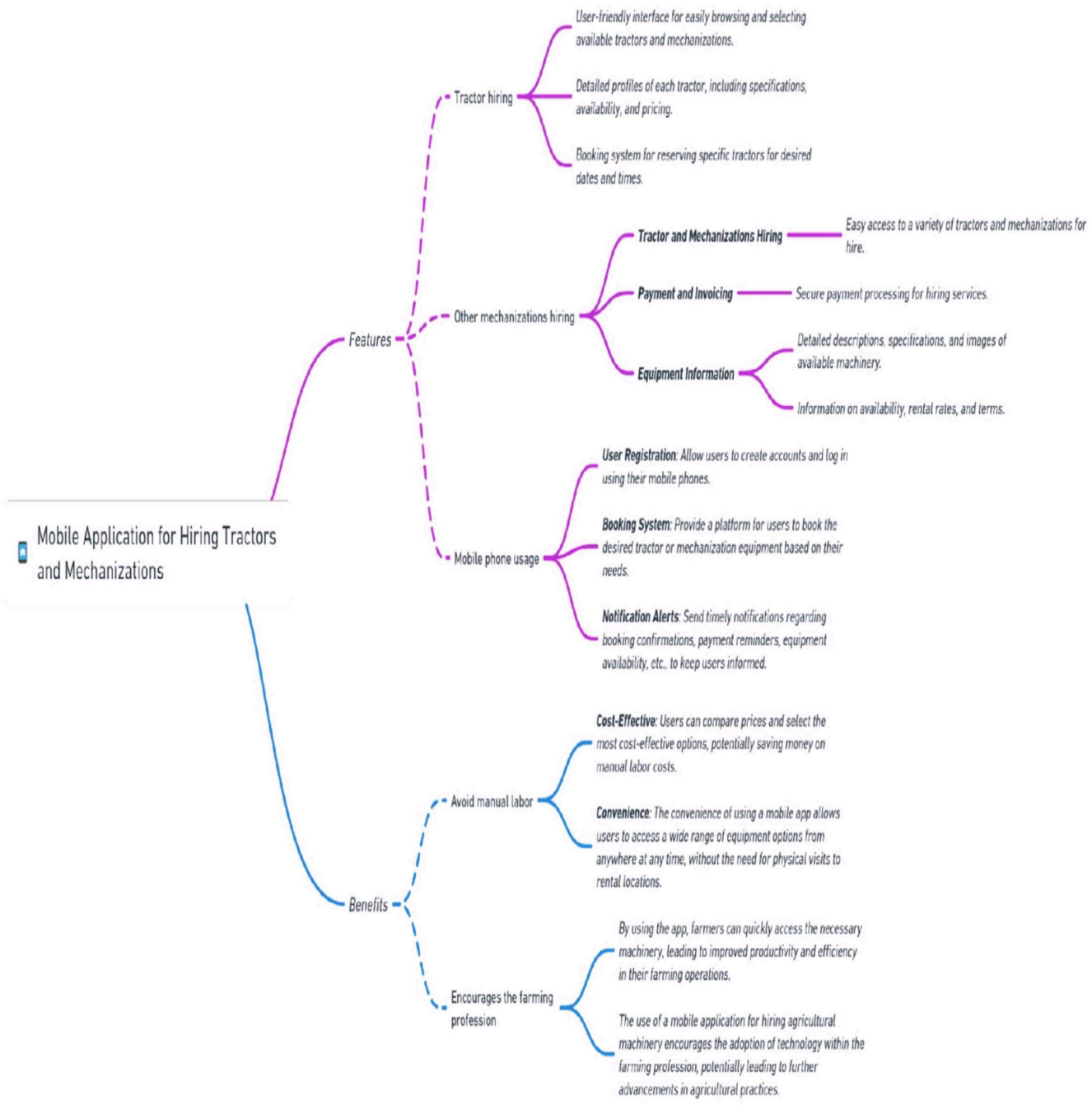
APPENDIX-A

PSEUDOCODE

fig-2.1



=APPENDIX-B

SCREENSHOTS

Fig 3.1

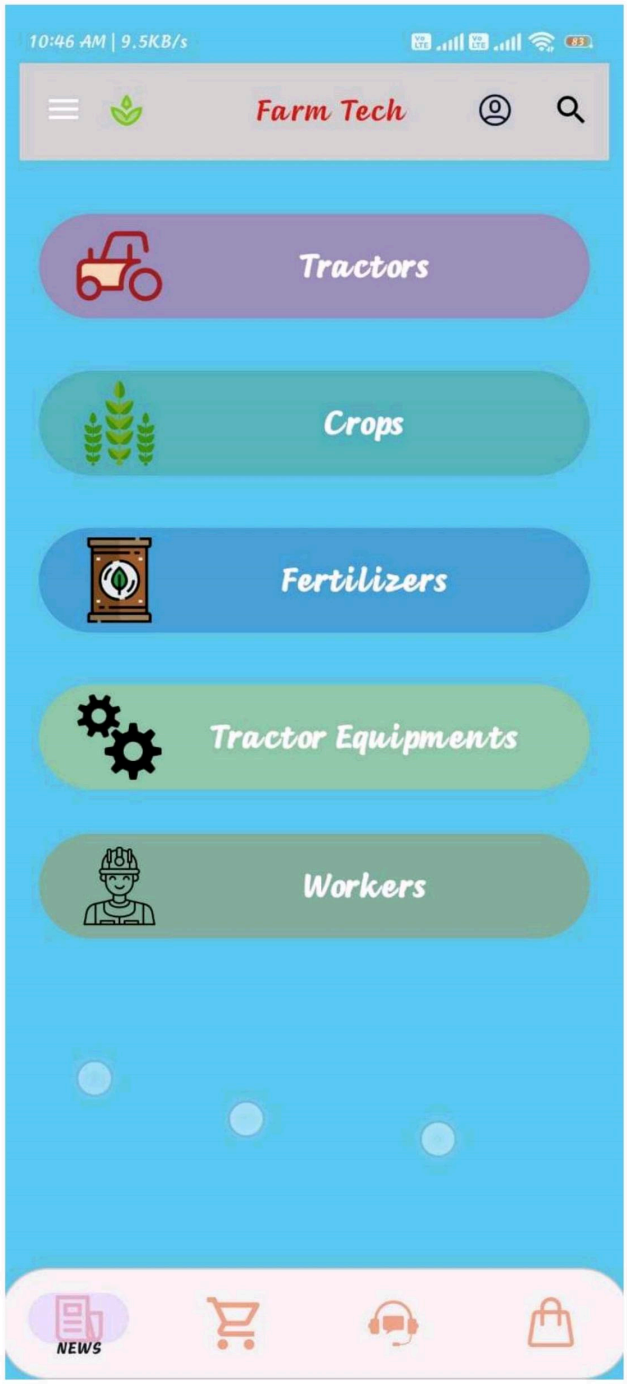


Fig 3.2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Hima,
Presidency University,
NEWS

Fig 3.3


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Fig 3.4


News
DONATE
Menu
ARTICLE
Types of Crops
A crop is a plant or plant product that can be grown and harvested for profit or subsistence. By use, crops fall into six categories: food crops, feed crops, fiber crops, oil crops, ornamental crops, and industrial crops.
GRADES
5 - 8
SUBJECTS
Biology, Experiential Learning, Geography
NEWS
Cart
Customer Care

Fig 3.5

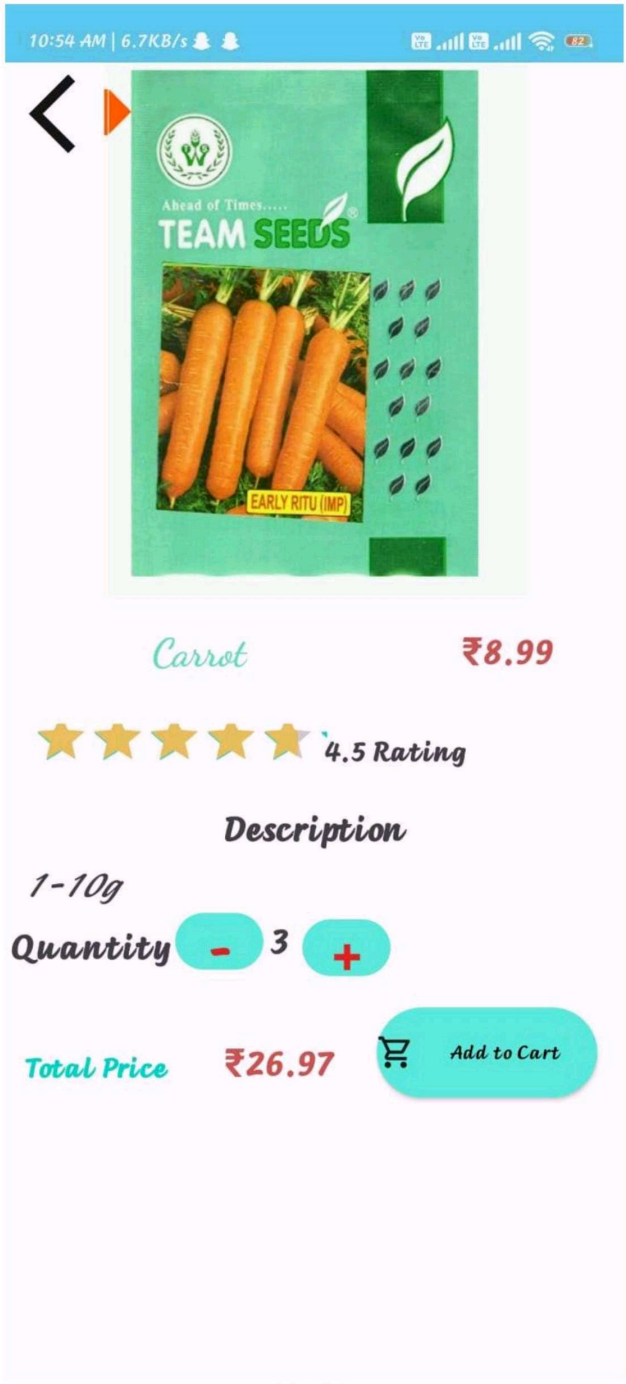
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Fig 3.6


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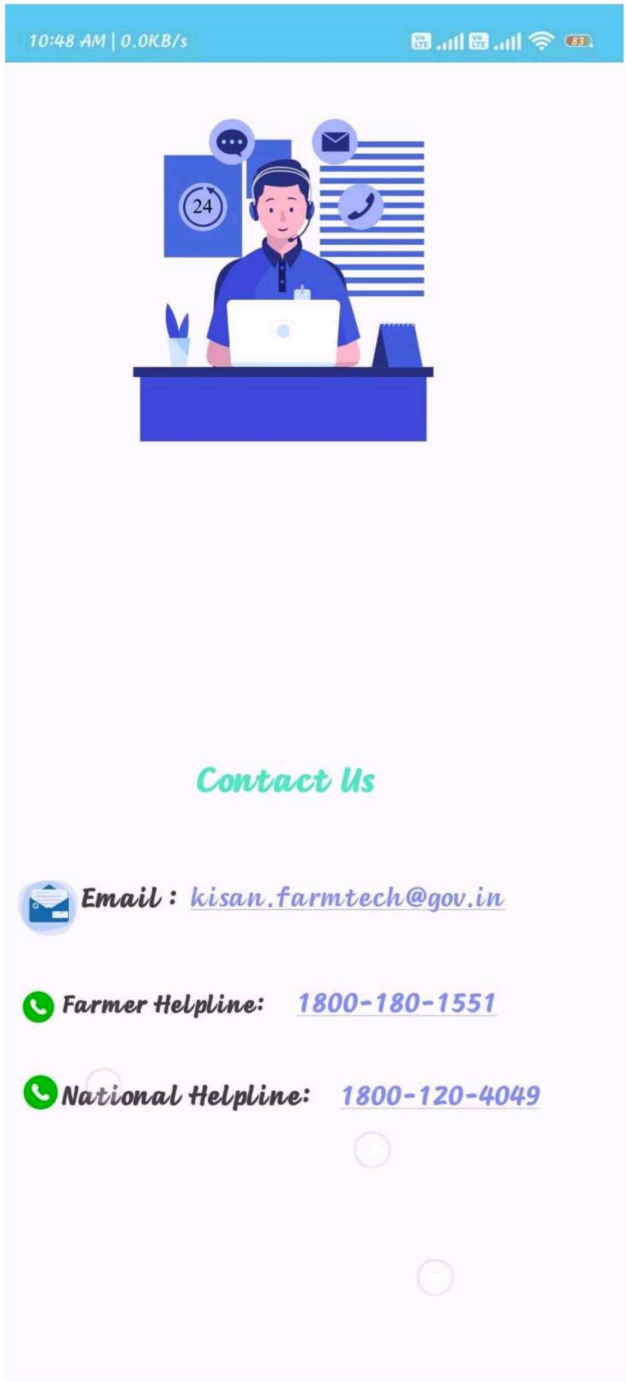
Fig 3.7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National Helpline: 1800-120-4049

Fig 3.8

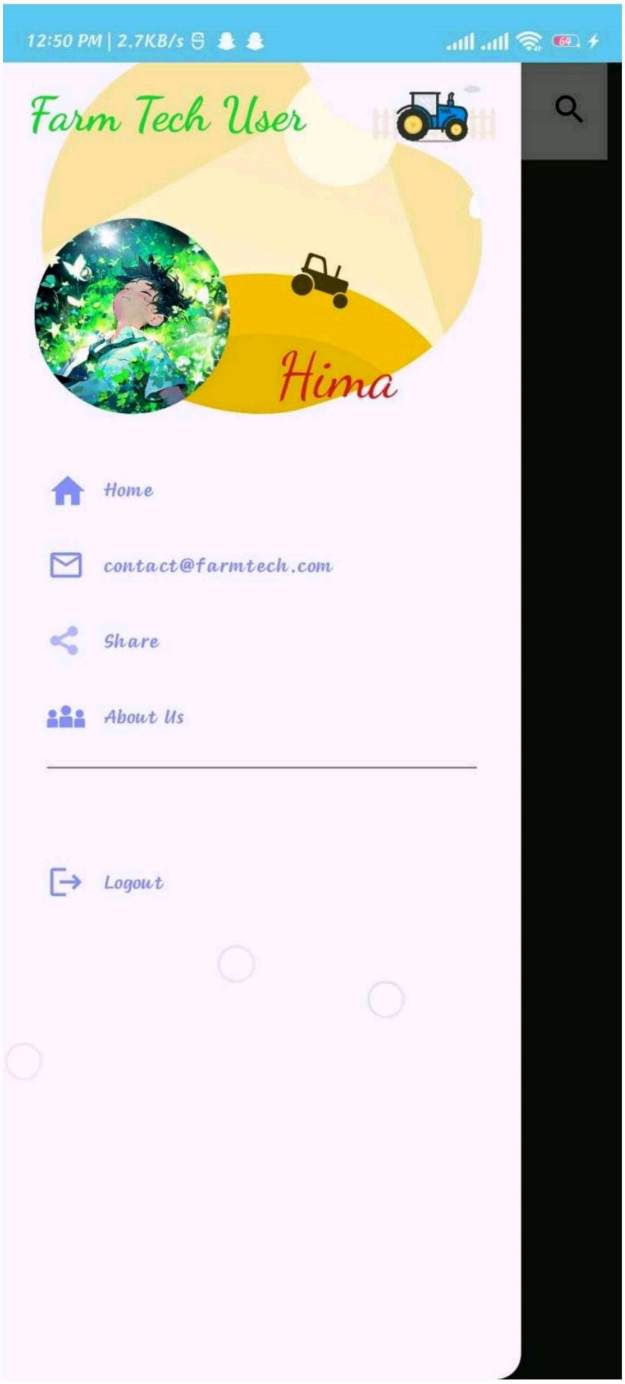

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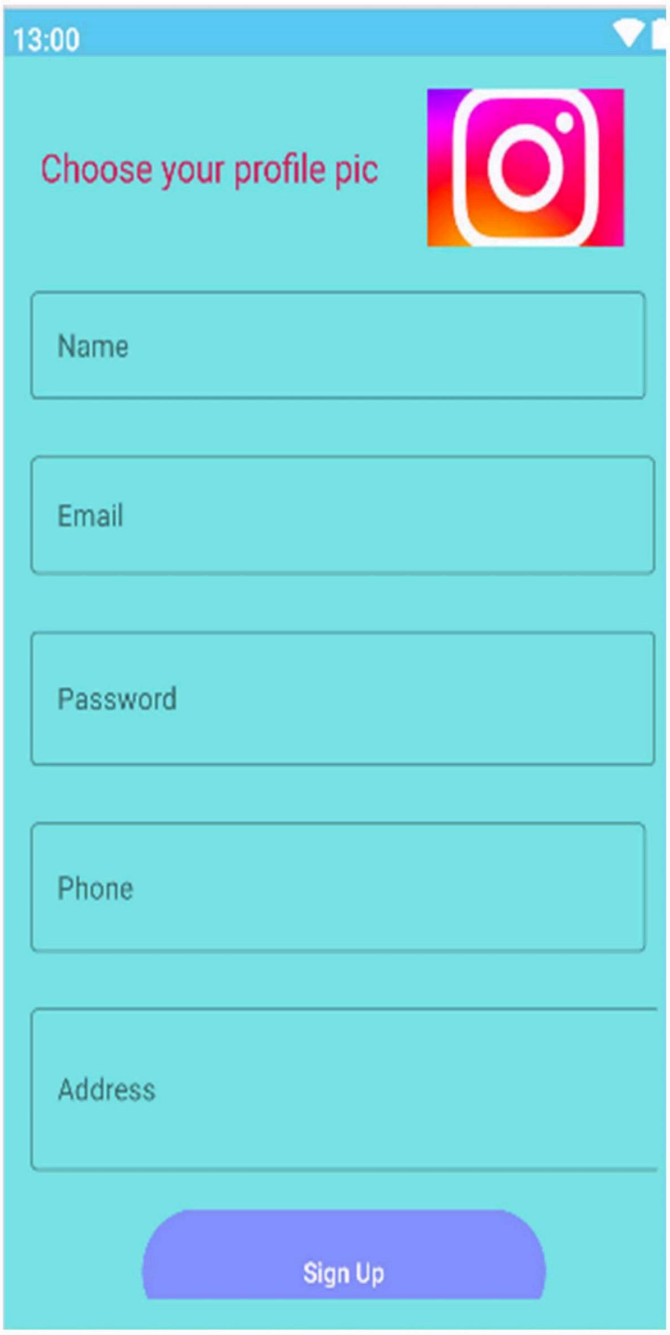
Fig 3.10



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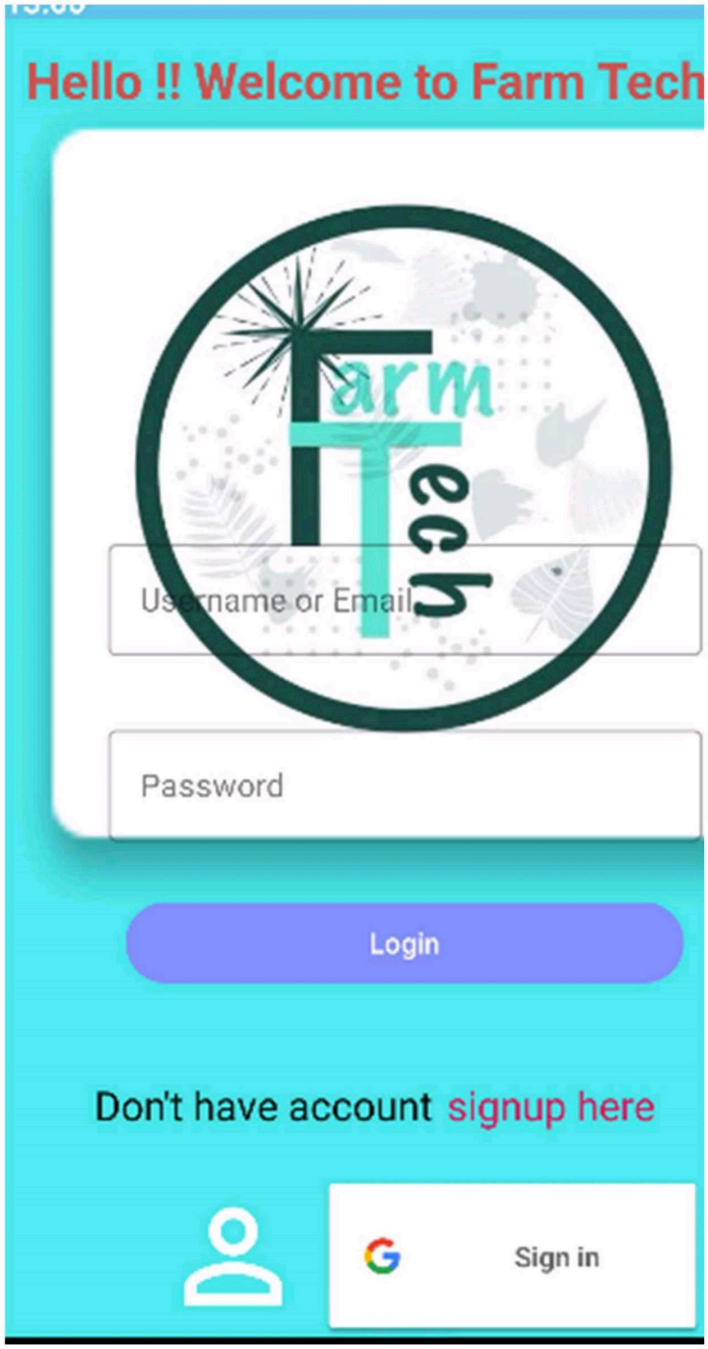
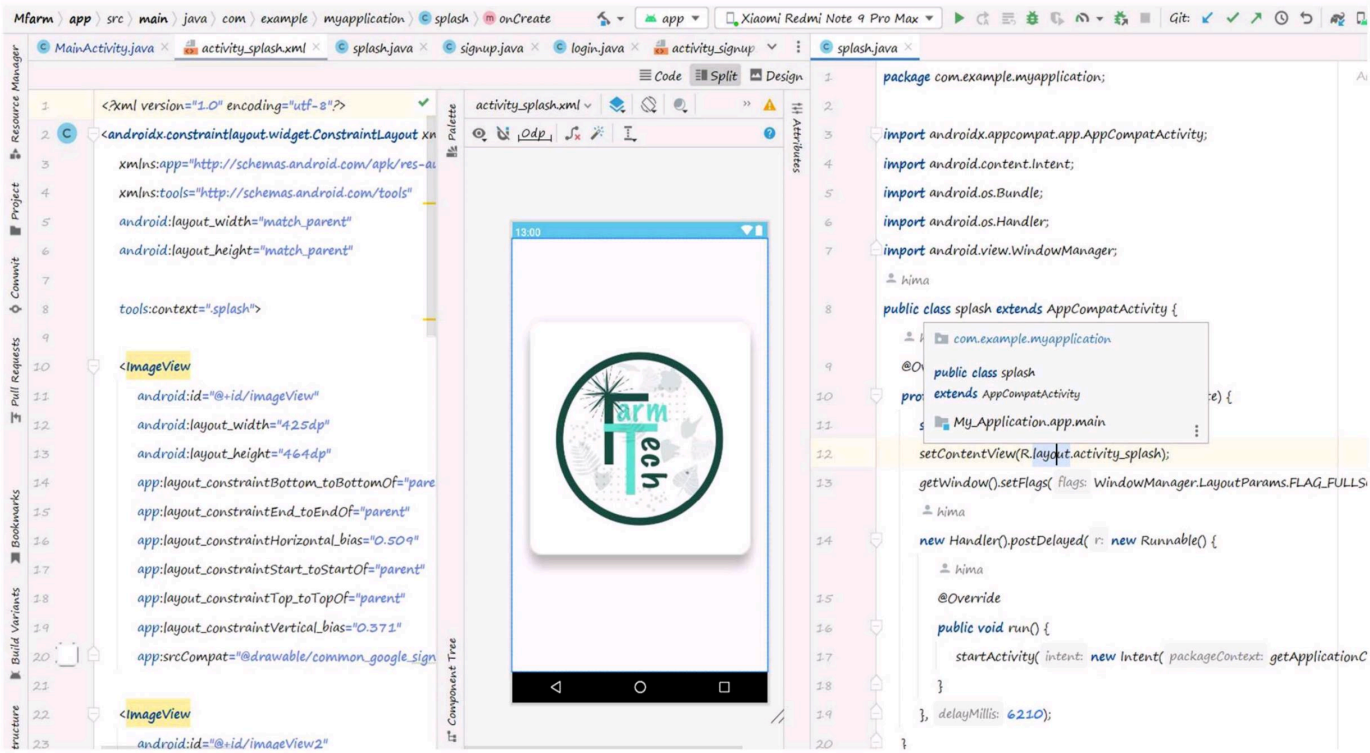


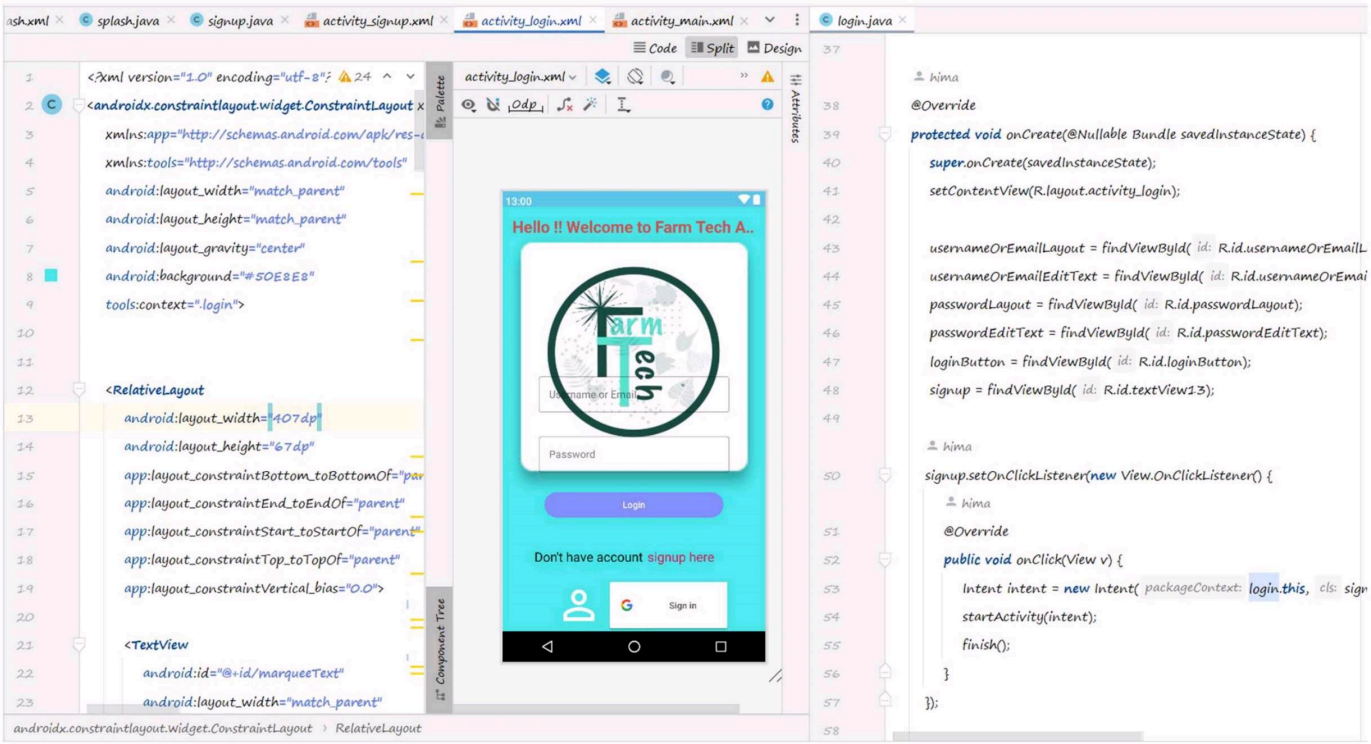
Fig 3.12

Code

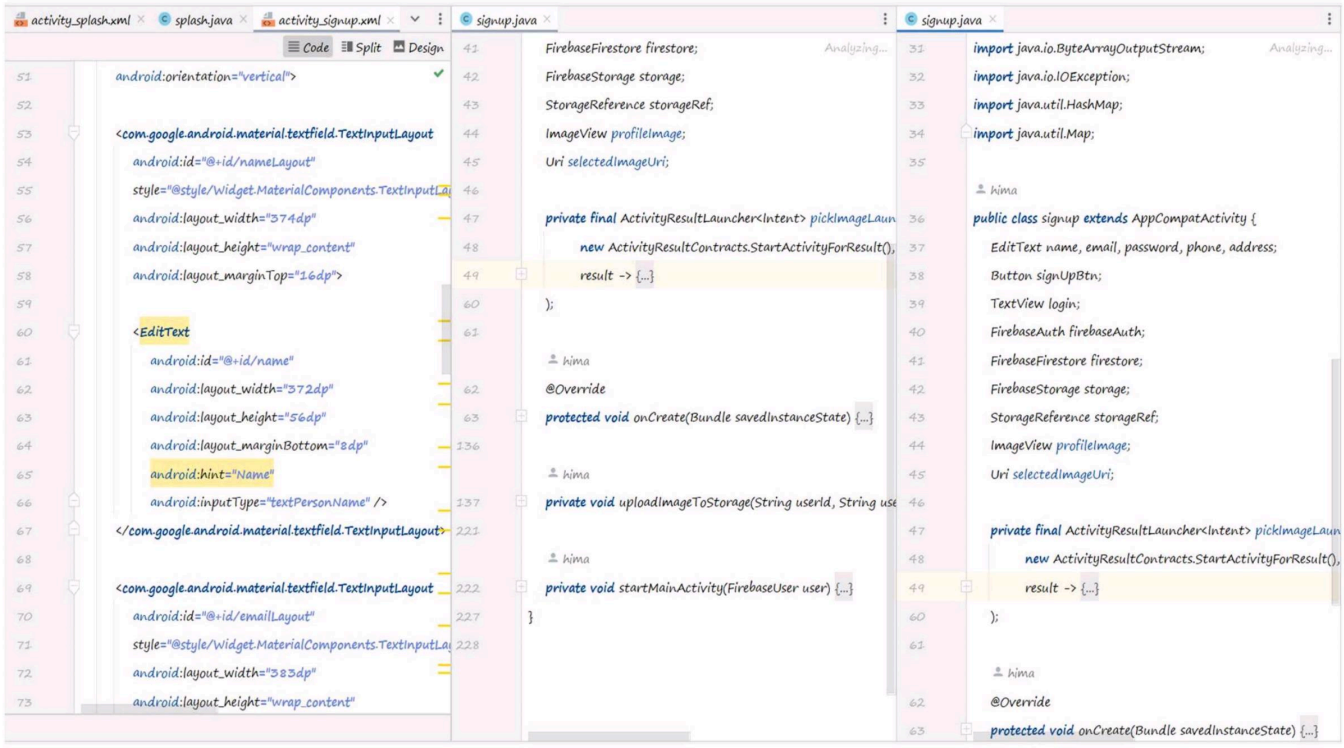
Splash Activity



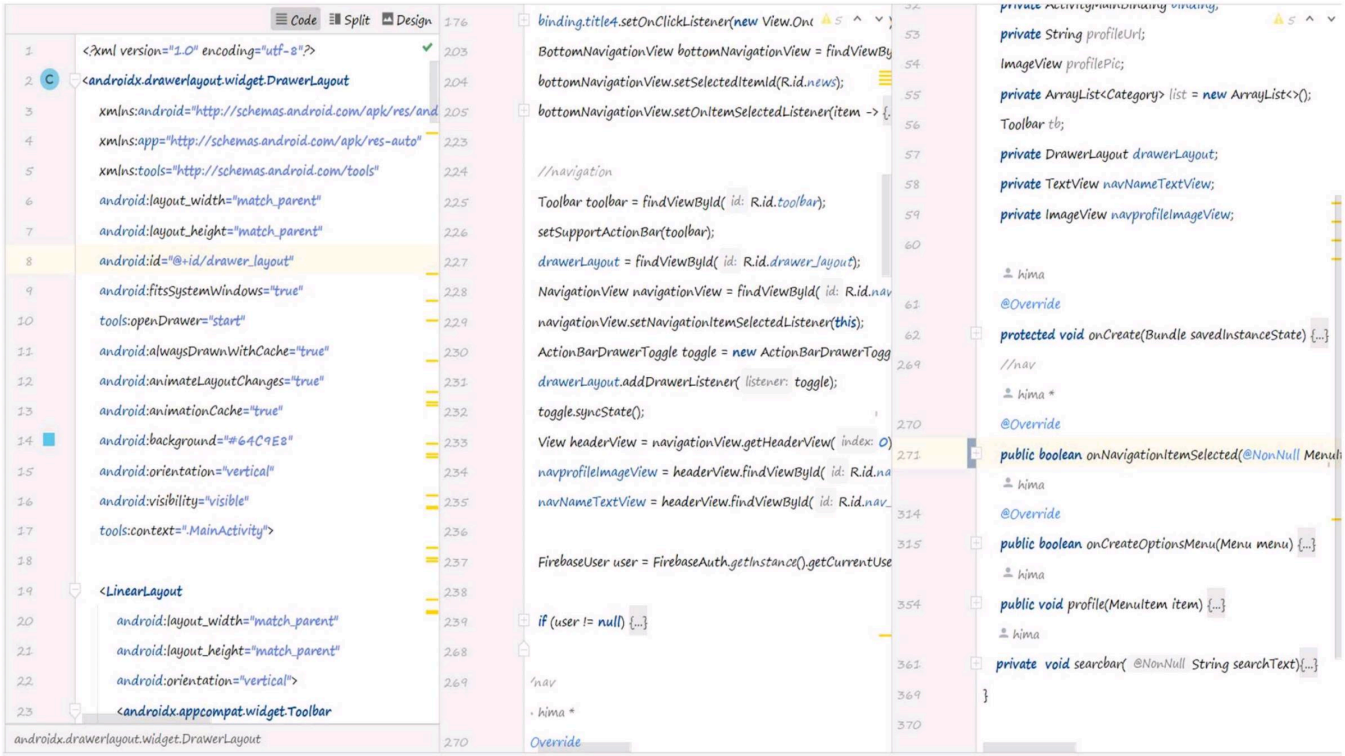
Login Activity



Signup Activity



Main Activity



List Activity

activity_list.xml | activity_care.xml | activity_cart.xml | activity_detail.xml | care.java

Code | Split | Design

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

    <ScrollView
        android:id="@+id/scrollView2"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_constraintBottom_toBottomOf="parent"
        Formats: enum, reference
        Values: parent
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintVertical_bias="1.0">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:orientation="vertical">
            <LinearLayout
```

ListActivity.java

Analyzing...

```java
        getIntentExtra();

        Log.d( tag: "ListActivity",  msg: "categoryId: " + categoryId);
        Log.d( tag: "ListActivity",  msg: "categoryName: " + categoryName);
        Log.d( tag: "ListActivity",  msg: "searchText: " + searchText);
        Log.d( tag: "ListActivity",  msg: "isSearch: " + isSearch);
        mAuth = FirebaseAuth.getInstance();

        initList();

    }


    private void initList() {
        DatabaseReference myRef = FirebaseDatabase.getInstance().getReference( path: "Farming");
        ArrayList<Farm> list=new ArrayList<>();
        binding.progressBar.setVisibility(View.VISIBLE);
        Log.d( tag: "ListActivity",  msg: "isSearch: " + isSearch);
        Query query;
        if (isSearch){
            query= myRef.orderByChild( path: "Title").startAt( value: searchText).endAt( value: searchTe
        }else {
            query = myRef.orderByChild( path: "CategoryId").equalTo( value: categoryId);
        }
```

List Adapter

CartAdapter.java | Farm.java

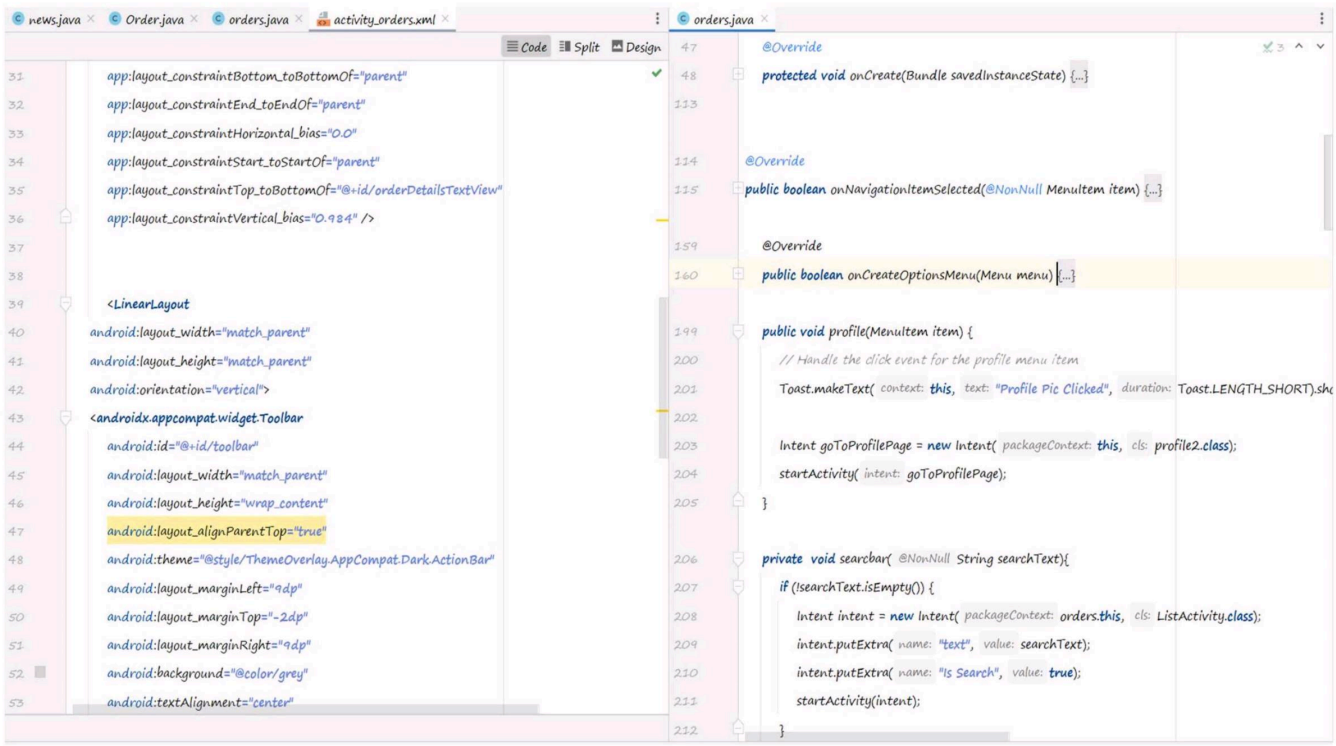
Analyzing...

```java
import java.io.Serializable;

hima
public class Farm implements Serializable {
    private  int CategoryId;
    private  String Description;
    private boolean Farm;
    private int Id;
    private double Price;
    private String ImagePath;
    private  int PriceId;
    private double Star;
    private String Title;
    private int numberInCart;

    hima
    @Contract(pure = true)
    public  Farm(){

    }
    hima
    @Contract(pure = true)
    public Farm(String title, double price, int numberInCart, int categoryId, String description, boolea
        this.Title = title;
        this.Price = price;
```

orderAdapter.java | ListAdapter.java

```java
import ...


hima
public class ListAdapter extends RecyclerView.Adapter<ListAdapter.viewholder> {
    ArrayList<Farm> items;
    Context context;

    hima
    public ListAdapter(ArrayList<Farm> items) { this.items = items; }

    hima
    @NonNull
    @Override
    public ListAdapter.viewholder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {
        context= parent.getContext();
        View inflate = LayoutInflater.from(context).inflate(R.layout.viewholder_list,parent,false);
        return new viewholder(inflate);
    }

    hima
    @Override
    public void onBindViewHolder(@NonNull ListAdapter.viewholder holder, int position) {
        holder.titleTxt.setText(items.get(position).getTitle());
```

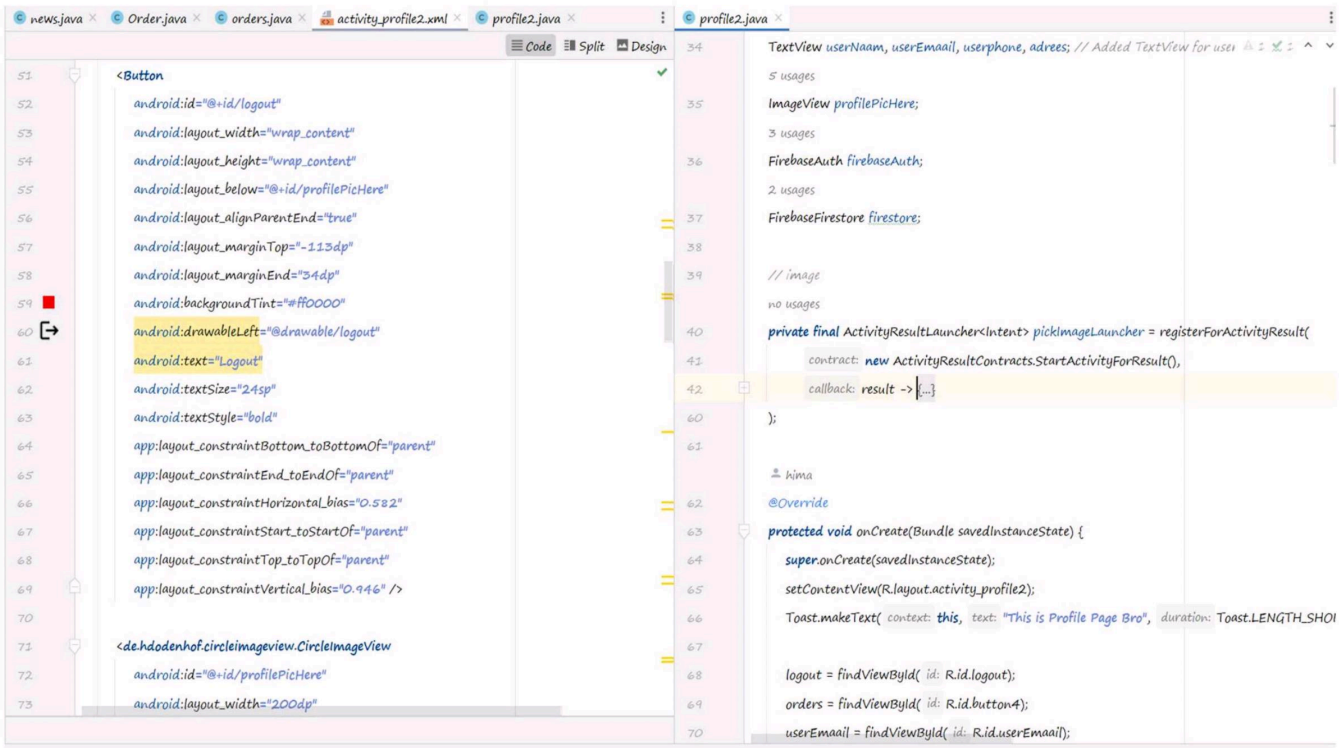
Order Activity



```
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.0"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/orderDetailsTextView"
app:layout_constraintVertical_bias="0.984" />


<LinearLayout
android:layout_width="match_parent"
android:layout_height="match_parent"
android:orientation="vertical">
<androidx.appcompat.widget.Toolbar
android:id="@+id/toolbar"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_alignParentTop="true"
android:theme="@style/ThemeOverlay.AppCompat.Dark.ActionBar"
android:layout_marginLeft="9dp"
android:layout_marginTop="-2dp"
android:layout_marginRight="9dp"
android:background="@color/grey"
android:textAlignment="center"
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {...}


@Override
public boolean onNavigationItemSelected(@NonNull MenuItem item) {...}

@Override
public boolean onCreateOptionsMenu(Menu menu) {...}

public void profile(MenuItem item) {
    // Handle the click event for the profile menu item
    Toast.makeText( context: this, text: "Profile Pic Clicked", duration: Toast.LENGTH_SHORT).sh
    Intent goToProfilePage = new Intent( packageContext: this, cls: profile2.class);
    startActivity( intent: goToProfilePage);
}

private  void searchar( @NonNull String searchText){
    if (!searchText.isEmpty()) {
        Intent intent = new Intent( packageContext: orders.this, cls: ListActivity.class);
        intent.putExtra( name: "text", value: searchText);
        intent.putExtra( name: "Is Search", value: true);
        startActivity(intent);
    }
```

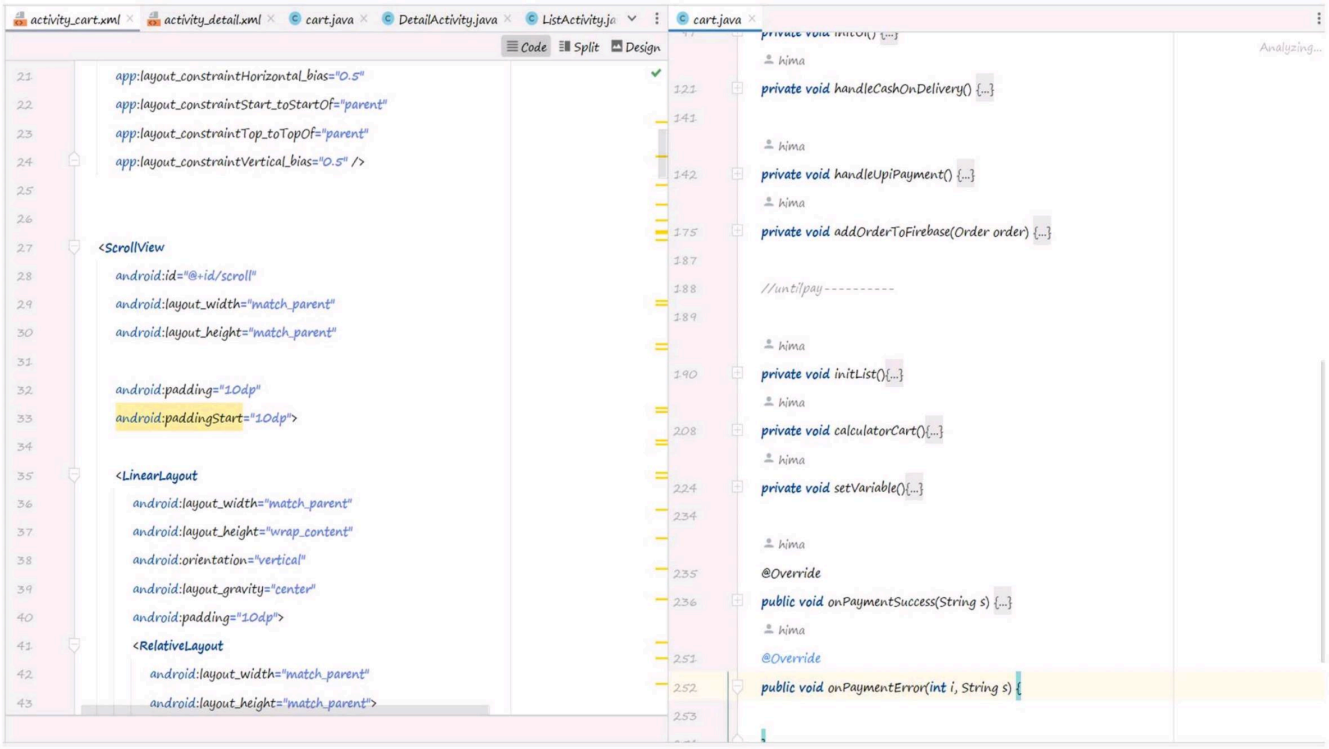
User_Profile Activity



```
<Button
    android:id="@+id/logout"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/profilePicHere"
    android:layout_alignParentEnd="true"
    android:layout_marginTop="-113dp"
    android:layout_marginEnd="34dp"
    android:backgroundTint="#ff0000"
    android:drawableLeft="@drawable/logout"
    android:text="Logout"
    android:textSize="24sp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.582"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.946" />

<de.hdodenhof.circleimageview.CircleImageView
    android:id="@+id/profilePicHere"
    android:layout_width="200dp"
```

```
TextView userNaam, userEmaail, userphone, adrees; // Added TextView for user
5 usages
ImageView profilePicHere;
3 usages
FirebaseAuth firebaseAuth;
2 usages
FirebaseFirestore firestore;

// image
no usages
private final ActivityResultLauncher<Intent> pickImageLauncher = registerForActivityResult(
        contract: new ActivityResultContracts.StartActivityForResult(),
        callback: result ->{...}
);

hima
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_profile2);
    Toast.makeText( context: this, text: "This is Profile Page Bro", duration: Toast.LENGTH_SHOI

    logout = findViewById( id: R.id.logout);
    orders = findViewById( id: R.id.button4);
    userEmaail = findViewById( id: R.id.userEmaail);
```

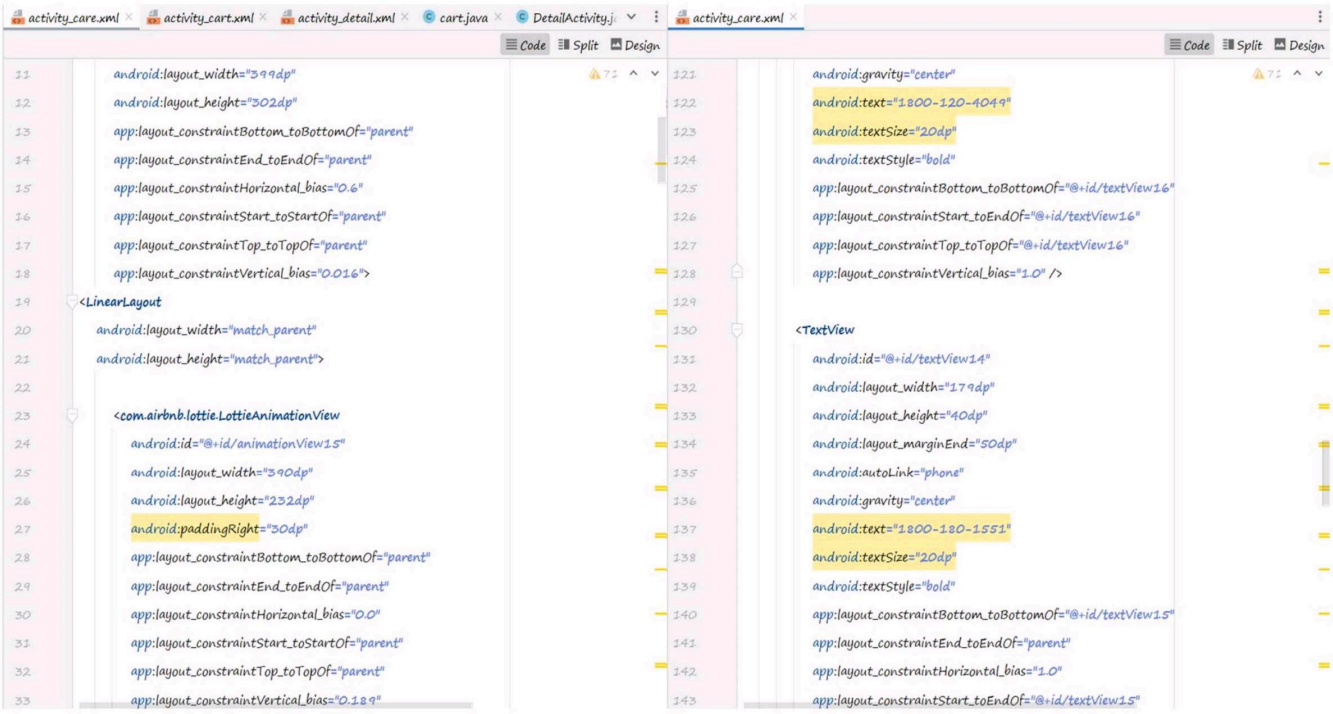
Cart Activity



```
app:layout_constraintHorizontal_bias="0.5"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.5" />


<ScrollView
    android:id="@+id/scroll"
    android:layout_width="match_parent"
    android:layout_height="match_parent"

    android:padding="10dp"
    android:paddingStart="10dp">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:layout_gravity="center"
        android:padding="10dp">
        <RelativeLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent">
```

```
private void handleCashOnDelivery() {...}

private void handleUpiPayment() {...}

private void addOrderToFirebase(Order order) {...}

//until pay----------

private void initList(){...}

private void calculatorCart(){...}

private void setVariable(){...}

@Override
public void onPaymentSuccess(String s) {...}

@Override
public void onPaymentError(int i, String s) {
```

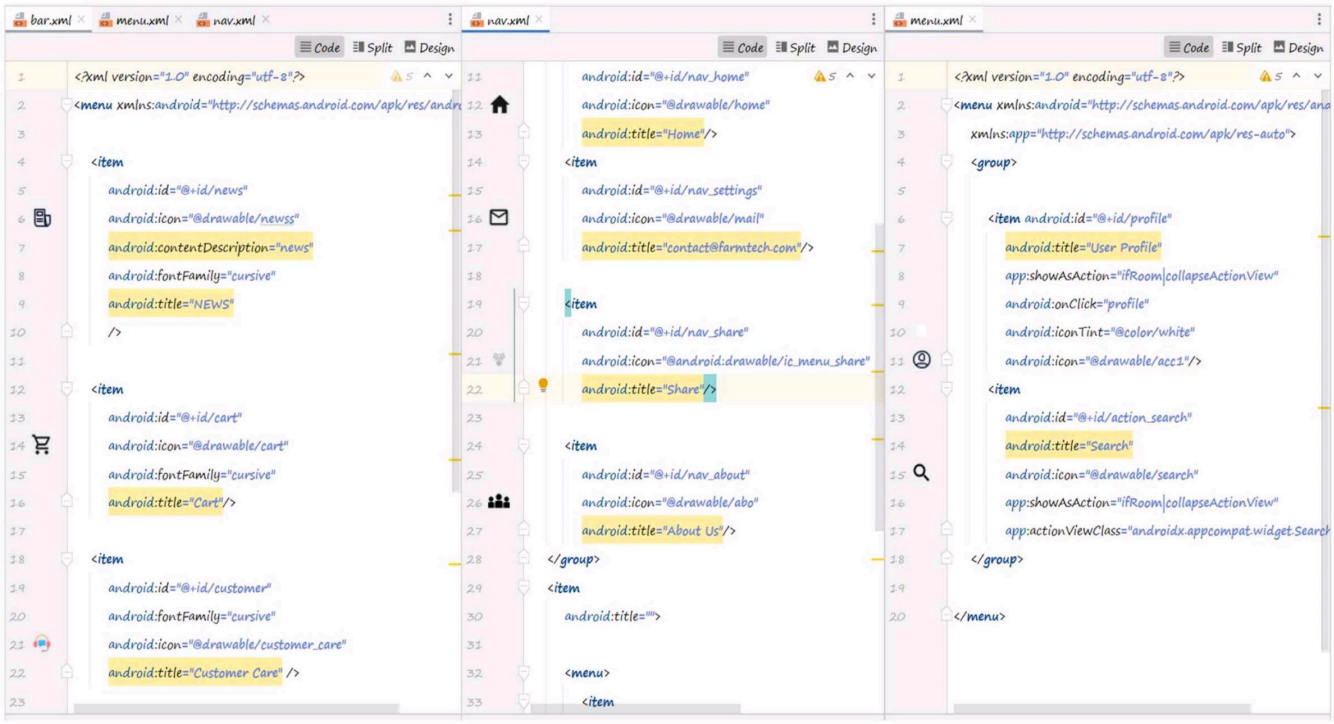
Care Activity



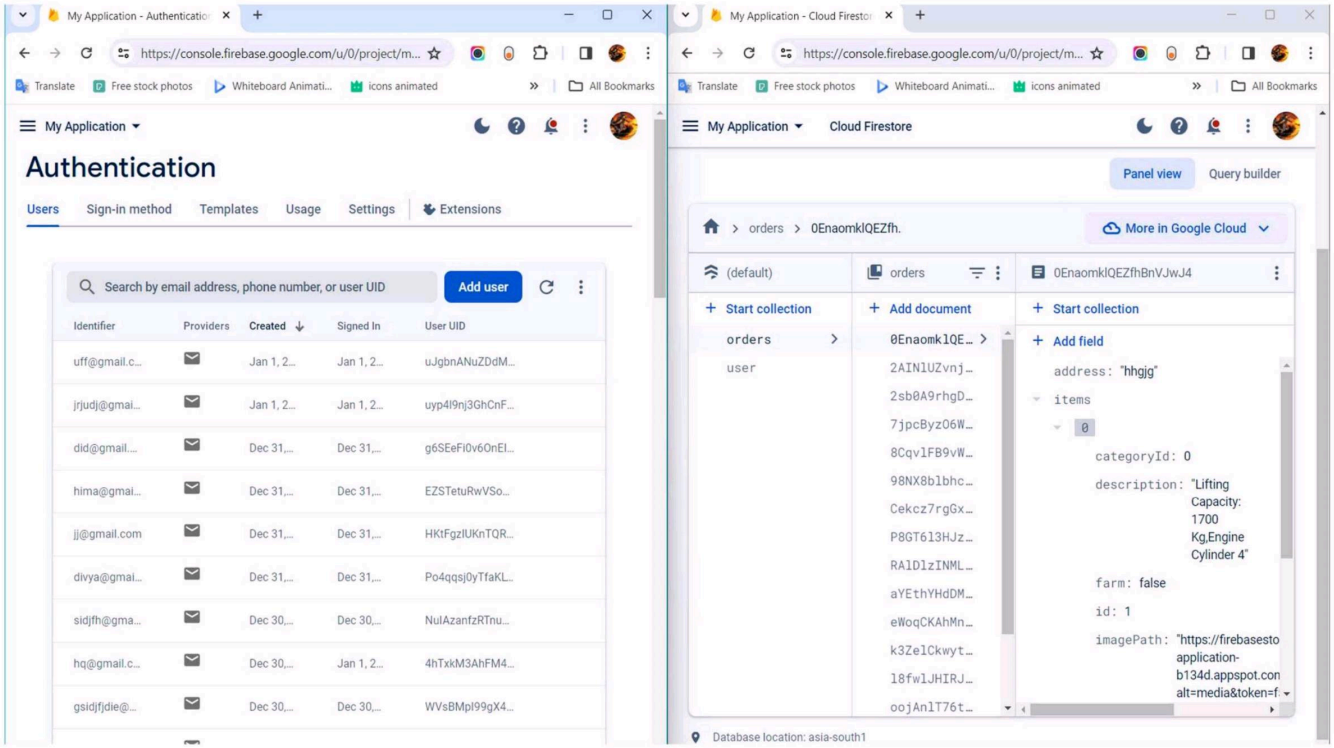
```
    android:layout_width="399dp"
    android:layout_height="302dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.6"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.016">
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <com.airbnb.lottie.LottieAnimationView
        android:id="@+id/animationView15"
        android:layout_width="390dp"
        android:layout_height="232dp"
        android:paddingRight="30dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.189"
```

```
    android:gravity="center"
    android:text="1800-120-4049"
    android:textSize="20dp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="@+id/textView16"
    app:layout_constraintStart_toEndOf="@+id/textView16"
    app:layout_constraintTop_toTopOf="@+id/textView16"
    app:layout_constraintVertical_bias="1.0" />

<TextView
    android:id="@+id/textView14"
    android:layout_width="179dp"
    android:layout_height="40dp"
    android:layout_marginEnd="50dp"
    android:autoLink="phone"
    android:gravity="center"
    android:text="1800-180-1551"
    android:textSize="20dp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="@+id/textView15"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="1.0"
    app:layout_constraintStart_toEndOf="@+id/textView15"
```

Tool bar and Navigation



Firebase



Farm Tech

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