Mini Project Report

SDM COLLEGE (Autonomous)
Ujire – 574240

EXPENSE TRACKER SYSTEM

By

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Under the guidance of

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Ujire – 574240

Department of Software and Application Development

Certificate for the approval of project report

This is to certify that Abhishek U S, 211301 of II B.voc has satisfactorily completed the Android App project "Expense Tracker System" for the B.voc in Software and Application Development Degree Prescribed by the college during the academic year 2022 – 2023.

Mr. Sammed Jain   Ms. Rakshitha H J   Dr Kumara Hegde B A

Head of the Department   **Project Guide**   **Principal**

Examiners:

1.

2.

DECLARATION

I hereby declare that this Android App project work entitled "Expense Tracker System" has been prepared by me during the year 2022 – 2023 under the guidance of Ms. Rakshitha H J, Department of B.voc in Software and Application Development, SDM College in the partial fulfillment of B.voc degree prescribed by the college.

I also declare that this project is the outcome of My own effort, that it has not been submitted to any other university for the award of any degree.

Abhishek U S,

211301

ACKNOWLEDGEMENT

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Chapter 1

Introduction

The app has I module namely customer or client.

Expense Tracking: The app allows users to record their expenses in real-time, making it easy to log every transaction. Users can categorize expenses by type, such as food, transportation, entertainment, etc. They can also add additional details like the date, time, and location of the expense.

Budget Management: The Expense Tracker System enables users to set monthly or weekly budgets for different expense categories. The app provides visual representations, such as charts and graphs, to track their progress and determine if they are sticking to their budget.

Income Tracking: Users can also track their income alongside expenses, giving them a comprehensive overview of their financial situation. The app supports multiple income sources, allowing users to add details such as salary, investments, and other sources of income.

The Expense Tracker System is a powerful Android app designed to simplify expense management and improve financial awareness

Chapter 2

Requirement Specification

Requirement specification is a specification of software requirements and hardware requirements required to do the project. Requirement analysis encompasses those tasks that go into determining the needs or conditions to meet for a new or altered product or project, taking account of the possibly conflicting requirements of the various stakeholders, analyzing, documenting, validating and managing software or system requirements.

2.1 Hardware Requirements

Sl. No.	Hardware/Equipment	Specification
1	Processor	Intel(R) Core (TM)-i5 Processor
2	Clock Speed	2.30 GHz
3	Monitor	1024*768 Resolution, color
4	RAM	8GB (min.)

2.2 Software Requirements

Sl. No.	Software	Specification
1	Operating System	Windows 11 Home Single Language
2	Scripting	Java, XML
3	Tools Used	Android Studio, Firebase
4	Web Browser	Google Chrome

Chapter 3

Implementation

Implementation is a process of development of an application. Once the system design is completed then actual development of system will starts. The development of application using system design is called the implementation phase. In this phase, largest system is divided into small modules. For each module, algorithms are developed and each algorithm is coded using programming languages.
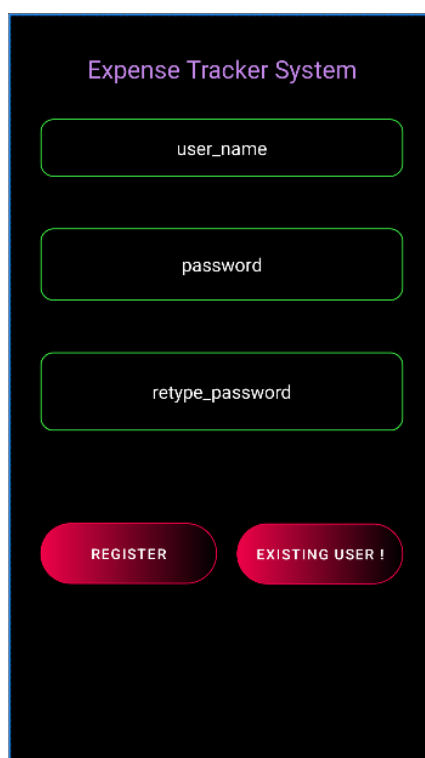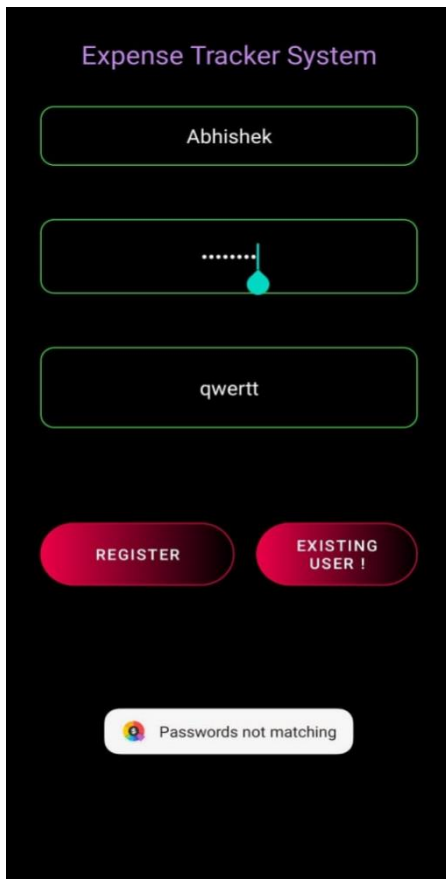
Chapter 4

Results

Results basically refer to any particular output that comes as a result of the completion of the activities that have been performed as part of the project or a particular project component.

Figure 4.1: This is how the Splash Screen looks like.

Figure 4.2: Here the User can Register to the app using their respective user name and Password.

Figure 4.3: This page the password have to match to the reentered password
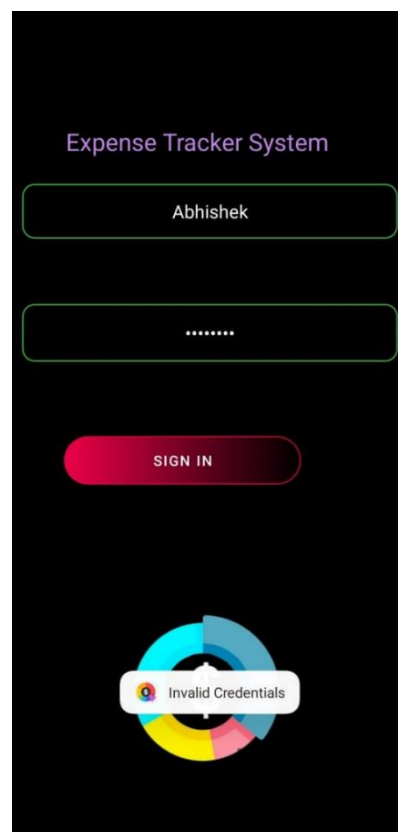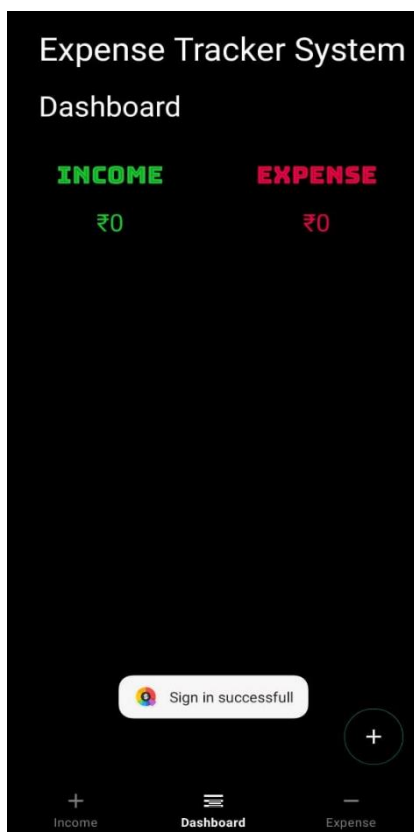
Figure 4.4 and 4.5: This is the Sign Portal where user can enter his password and user name to Sign In
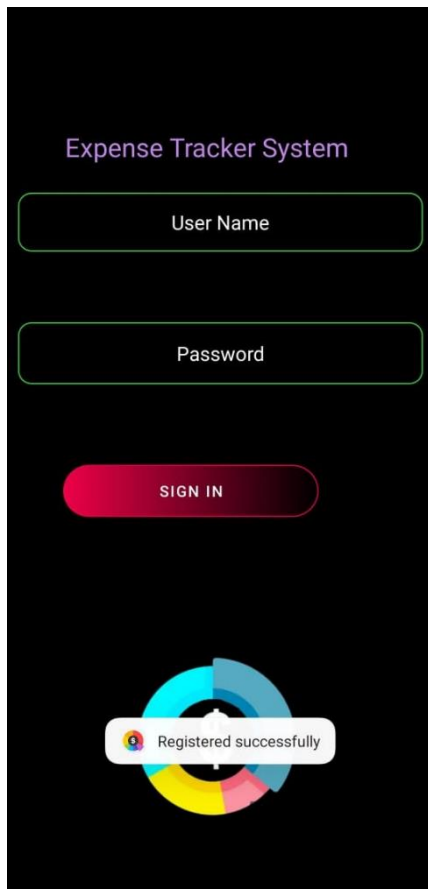
Figure 4.6 This is the dashboard page showing signin successful
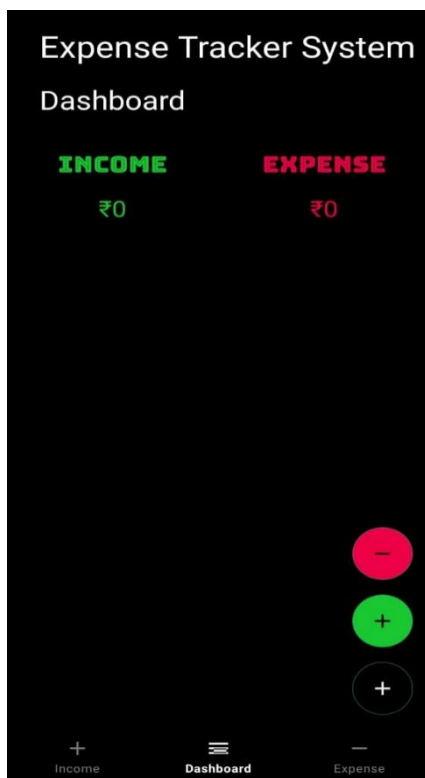
Figure 4.7: This page have both details on Income and Expense

Figure 4.8: This page have both details on Income and Expense
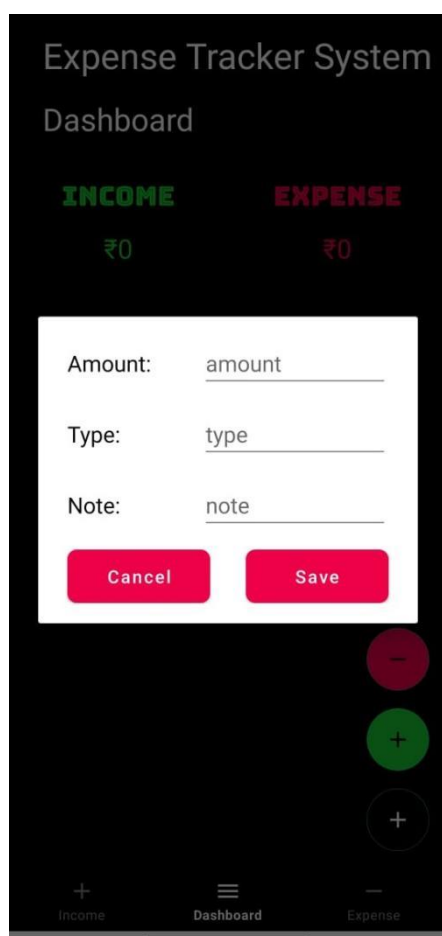
Figure 4.9: This page is the where the income and expense details have to enter.
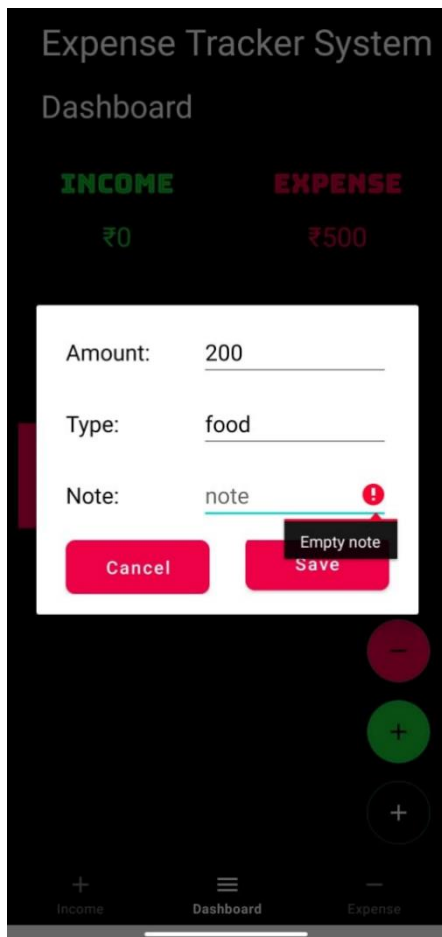
Figure 4.10: In pages are the where the income and expense details have to enter and have to enter full details.
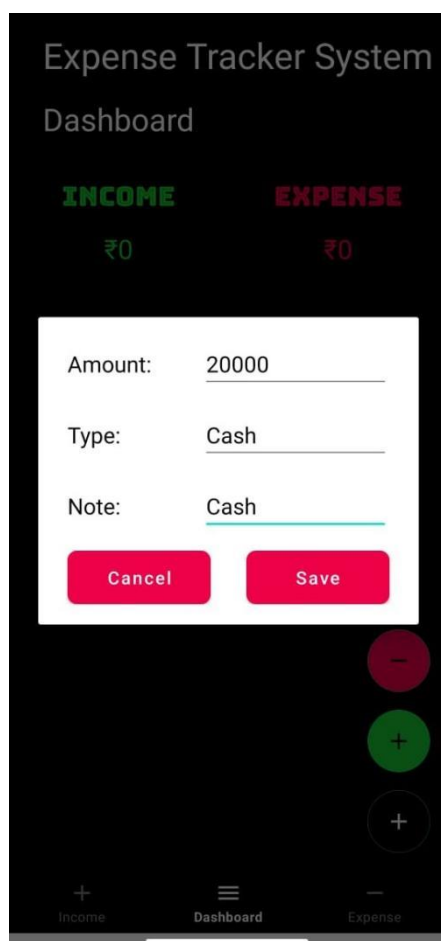
Figure 4.11: In the page income details are entered
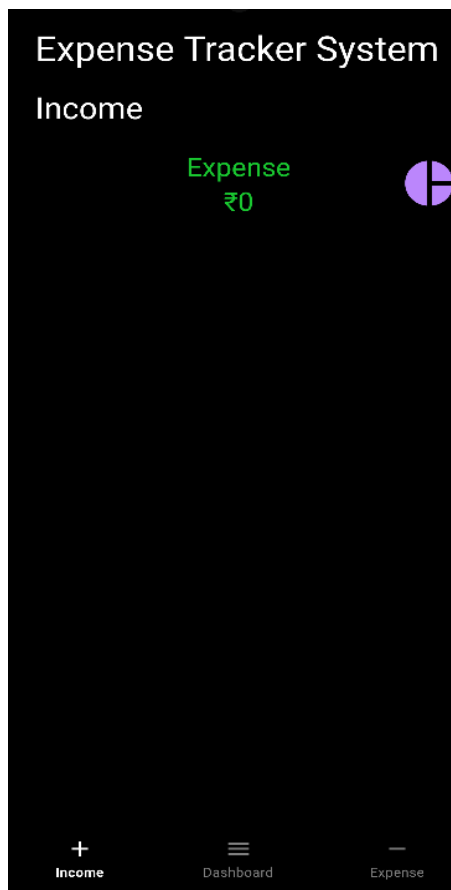
Figure 4.12: In the page income details are stored

Figure 4.13: In the page income details
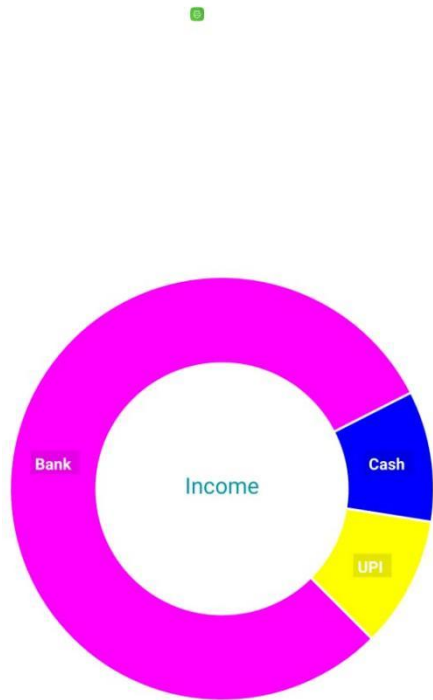
Figure 4.14: In the page income details in chart
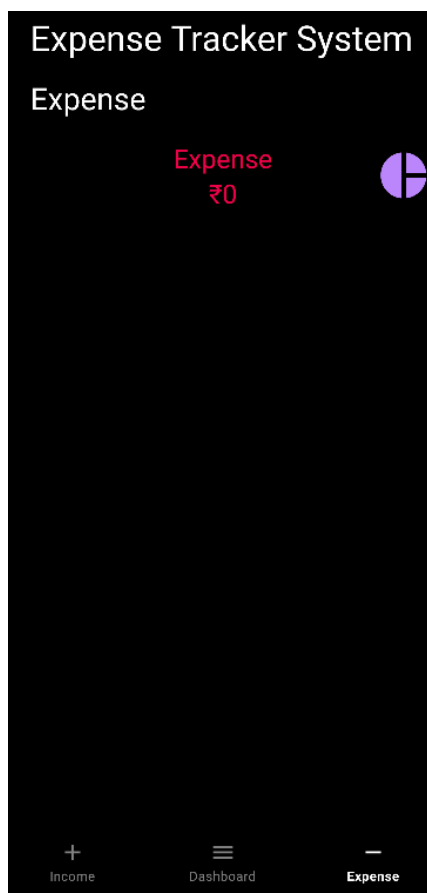
Figure 4.15: In the page Expense details are stored

Figure 4.16: In the page Expense details

Figure 4.17: In the page Expense details in chart

Chapter 5

Source Code

XML code:

activity_main.xml

```xml
<?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:orientation="vertical"
    tools:context=".MainActivity">
    <FrameLayout
        android:id="@+id/flFragment"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_above="@id/bottomNavigationView"
        app:layout_constraintBottom_toTopOf="@+id/bottomNavigationView"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <com.google.android.material.bottomnavigation.BottomNavigationView
        android:id="@+id/bottomNavigationView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_marginStart="0dp"
        android:layout_marginEnd="0dp"
        android:elevation="3dp"
        android:fitsSystemWindows="true"
        app:itemBackground="@color/black"
        app:itemIconTint="@drawable/tab_color"
        app:itemTextColor="@drawable/tab_color"
        app:menu="@menu/menu" />
</RelativeLayout>
```

Activity_login.xml

```xml
<?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"
```

```xml
android:layout_gravity="center"
android:background="@color/black"
android:layout_height="match_parent"
android:padding="10dp"
tools:context=".LoginActivity">


<TextView
    android:id="@+id/textView"
    android:layout_width="357dp"
    android:layout_height="43dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="25dp"
    android:layout_marginBottom="655dp"
    android:gravity="center"
    android:text="Expense Tracker System"
    android:textColor="#C488EA"
    android:textSize="24sp" />

<EditText
    android:id="@+id/username1"
    android:layout_width="397dp"
    android:layout_height="54dp"
    android:layout_alignParentTop="true"
    android:layout_marginTop="173dp"
    android:background="@drawable/edit_text_border"
    android:gravity="center"
    android:hint="User Name"
    android:textColor="@color/white"
    android:textColorHint="@color/white" />

<EditText
    android:id="@+id/password1"
    android:layout_width="401dp"
    android:gravity="center"
    android:layout_height="57dp"
    android:layout_below="@+id/username1"
    android:layout_marginTop="65dp"
    android:background="@drawable/edit_text_border"
    android:hint="Password"
    android:password="true"
    android:textColor="@color/white"
    android:textColorHint="@color/white" />

<Button
```

```
        android:id="@+id/btnsignin1"
        android:layout_width="235dp"
        android:layout_height="wrap_content"
        android:layout_below="@+id/password1"
        android:layout_alignParentEnd="true"
        android:layout_marginTop="74dp"
        android:layout_marginEnd="96dp"
        android:background="@drawable/custom_button3"
        android:text="Sign in" />

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="177dp"
        android:layout_height="153dp"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="101dp"
        android:layout_marginBottom="57dp"
        app:srcCompat="@drawable/money1room" />
</RelativeLayout>
```

Fragments_Income.xml

```
<?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="@color/black"
    tools:context=".fragments.Income">

    <TextView
        android:id="@+id/tv_text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="30dp"
        android:layout_marginTop="20dp"
        android:text="Expense Tracker System"
        android:textColor="@color/white"
        android:textSize="32sp" />

    <TextView
        android:id="@+id/tv_text2"
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
        android:layout_below="@id/tv_text"
        android:layout_marginLeft="30dp"
        android:layout_marginTop="15dp"
        android:layout_marginBottom="20dp"
        android:text="Income"
        android:textColor="@color/white"
        android:textSize="28sp" />

    <RelativeLayout
        android:id="@+id/rr"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/tv_text2">

        <LinearLayout
            android:id="@+id/ll"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_centerHorizontal="true"
            android:gravity="center"
            android:orientation="vertical">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:fontFamily="@font/bungee_inline"
                android:text="Expense"
                android:textColor="@color/light_green"
                android:textSize="24sp" />

            <TextView
                android:id="@+id/tv_income"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:text="Rs. 10000.00"
                android:textColor="@color/light_green"
                android:textSize="24sp" />

        </LinearLayout>

        <ImageView
            android:id="@+id/iv_expensePie"
            android:layout_width="50dp"
            android:layout_height="50dp"
            android:layout_alignParentEnd="true"
```

```
                android:layout_centerVertical="true"
                android:layout_marginRight="16dp"
                android:src="@drawable/ic_baseline_pie_chart_24"
                app:tint="@color/purple_200" />

        </RelativeLayout>

        <androidx.recyclerview.widget.RecyclerView
            android:id="@+id/rv_income"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_below="@id/rr"
            android:layout_marginTop="14dp"
            android:scrollbars="horizontal"
            tools:listitem="@layout/layout_income_item2" />
    </RelativeLayout>
```

income_add_litem.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical"
    android:padding="10dp">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="8dp"
        android:orientation="horizontal"
        android:weightSum="5">

        <TextView
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_marginLeft="8dp"
            android:layout_weight="2"
            android:text="Amount: "
            android:textColor="@color/textColor"
            android:textSize="20sp" />

        <EditText
            android:id="@+id/et_incomeAmount"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
```

```xml
        android:layout_marginLeft="8dp"
        android:layout_marginRight="8dp"
        android:layout_weight="3"
        android:hint="amount"
        android:inputType="number"
        android:textColor="@color/textColor"
        android:textSize="20sp" />

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="8dp"
        android:orientation="horizontal"
        android:weightSum="5">

        <TextView
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_marginLeft="8dp"
            android:layout_weight="2"
            android:text="Type: "
            android:textColor="@color/textColor"
            android:textSize="20sp" />

        <EditText
            android:id="@+id/et_incomeType"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_marginLeft="8dp"
            android:layout_marginRight="8dp"
            android:layout_weight="3"
            android:hint="type"
            android:textColor="@color/textColor"
            android:textSize="20sp" />

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="8dp"
        android:orientation="horizontal"
        android:weightSum="5">
```

```xml
    <TextView
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="8dp"
        android:layout_weight="2"
        android:text="Note: "
        android:textColor="@color/textColor"
        android:textSize="20sp" />

    <EditText
        android:id="@+id/et_incomeNote"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginLeft="8dp"
        android:layout_marginRight="8dp"
        android:layout_weight="3"
        android:hint="note"
        android:textColor="@color/textColor"
        android:textSize="20sp" />

</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="8dp"
    android:orientation="horizontal">

    <Button
        android:id="@+id/btn_cancel"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_gravity="bottom"
        android:layout_marginLeft="8dp"
        android:layout_marginRight="16dp"
        android:layout_weight="1"
        android:background="@drawable/bg_rounded_input_field"
        android:text="Cancel"
        android:textAllCaps="false"
        android:textColor="@color/white"
        android:textSize="16sp" />

    <Button
        android:id="@+id/btn_save"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
```

```
            android:layout_gravity="bottom"
            android:layout_marginLeft="16dp"
            android:layout_marginRight="8dp"
            android:layout_weight="1"
            android:background="@drawable/bg_rounded_input_field"
            android:text="Save"
            android:textAllCaps="false"
            android:textColor="@color/white"
            android:textSize="16sp" />
    </LinearLayout>
</LinearLayout>
```

JAVA Code:

MainActivity.java

```java
package com.example.expensetrackersystem;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.view.View;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import com.example.expensetrackersystem.fragments.Dashboard;
import com.example.expensetrackersystem.fragments.Expense;
import com.example.expensetrackersystem.fragments.Income;
import com.google.android.material.bottomnavigation.BottomNavigationView;

public class MainActivity extends AppCompatActivity implements
BottomNavigationView.OnNavigationItemSelectedListener {
    BottomNavigationView bottomNavigationView;

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

        bottomNavigationView = findViewById(R.id.bottomNavigationView);

        bottomNavigationView.setOnNavigationItemSelectedListener(this);
        bottomNavigationView.setSelectedItemId(R.id.dashboard);

    }

    Dashboard dashboardFragment = new Dashboard();
    Expense expenseFragment = new Expense();
```

```java
    Income incomeFragment = new Income();
    @Override
    public boolean onNavigationItemSelected(@NonNull MenuItem item) {

        switch (item.getItemId()) {
            case R.id.income:
                getSupportFragmentManager().beginTransaction().replace(R.id.flFragment,
incomeFragment).commit();
                return true;
            case R.id.dashboard:
                getSupportFragmentManager().beginTransaction().replace(R.id.flFragment,
dashboardFragment).commit();
                return true;

            case R.id.expense:
                getSupportFragmentManager().beginTransaction().replace(R.id.flFragment,
expenseFragment).commit();
                return true;
        }
        return false;
    }
}
```

SignUpActivity.java
```java
package com.example.expensetrackersystem;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class SignUpActivity extends AppCompatActivity {
    EditText username, password, repassword;
    Button signup, signin;
    DatabaseHelper DB;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_sign_up);
        username = (EditText) findViewById(R.id.username);
        password = (EditText) findViewById(R.id.password);
        repassword = (EditText) findViewById(R.id.repassword);
        signup = (Button) findViewById(R.id.btnsignup);
        signin = (Button) findViewById(R.id.btnsignin);
        DB = new DatabaseHelper(this);
```

```java
        signup.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String user = username.getText().toString();
                String pass = password.getText().toString();
                String repass = repassword.getText().toString();

                if(user.equals("")||pass.equals("")||repass.equals(""))
                    Toast.makeText(SignUpActivity.this, "Please enter all the fields",
Toast.LENGTH_SHORT).show();
                else{
                    if(pass.equals(repass)){
                        Boolean checkuser = DB.checkusername(user);
                        if(checkuser==false){
                            Boolean insert = DB.insertData(user, pass);
                            if(insert==true){
                                Toast.makeText(SignUpActivity.this, "Registered successfully",
Toast.LENGTH_SHORT).show();
                                Intent intent = new Intent(getApplicationContext(),LoginActivity.class);
                                startActivity(intent);
                            }else{
                                Toast.makeText(SignUpActivity.this, "Registration failed",
Toast.LENGTH_SHORT).show();
                            }
                        }
                        else{
                            Toast.makeText(SignUpActivity.this, "User already exists! please sign in",
Toast.LENGTH_SHORT).show();
                        }
                    }else{
                        Toast.makeText(SignUpActivity.this, "Passwords not matching",
Toast.LENGTH_SHORT).show();
                    }
                } }
        });
        signin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(getApplicationContext(), LoginActivity.class);
                startActivity(intent);
            }
        });
    }
}
```

LoginActivity.java

```java
package com.example.expensetrackersystem;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class LoginActivity extends AppCompatActivity {
    EditText username, password;
    Button btnlogin;
    DatabaseHelper DB;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);
        username = (EditText) findViewById(R.id.username1);
        password = (EditText) findViewById(R.id.password1);
        btnlogin = (Button) findViewById(R.id.btnsignin1);
        DB = new DatabaseHelper(this);
        btnlogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String user = username.getText().toString();
                String pass = password.getText().toString();
                if(user.equals("")||pass.equals(""))
                    Toast.makeText(LoginActivity.this, "Please enter all the fields",
Toast.LENGTH_SHORT).show();
                else{
                    Boolean checkuserpass = DB.checkusernamepassword(user, pass);
                    if(checkuserpass==true){
                        Toast.makeText(LoginActivity.this, "Sign in successfull",
Toast.LENGTH_SHORT).show();
                        Intent intent  = new Intent(getApplicationContext(), MainActivity.class);
                        startActivity(intent);
                    }else{
                        Toast.makeText(LoginActivity.this, "Invalid Credentials",
Toast.LENGTH_SHORT).show();
                    }
                }
            }
        });
    }
}
```

Chapter 6
Conclusion and Scope for Future Work

The Expense Tracker System is a powerful Android app designed to simplify expense management and improve financial awareness. With its intuitive interface, robust features, and data analysis capabilities, users can take control of their finances, make informed decisions, and achieve their financial goals. Whether you're an individual trying to save money or a business professional tracking expenses for reimbursement, this app can serve as your trusted financial companion.

FUTURE ENHANCEMENT

There is still additional room for future upgradation that would improve quality of the app and make it more useful and user friendly. Some of the features that can be enhanced are:
- To add the profile section for user and bank details.
- To link the bank account to the app for easy entry
- To ensure users never miss a payment, the app includes a bill reminder feature.
- To beautify the app by improving the UI design.

Bibliography

1. https://stackoverflow.com
2. https://firebase.google.com