

MainActivity.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    tools:context=".views.activities.MainActivity">

    <com.google.android.material.appbar.MaterialToolbar
        android:id="@+id/Toolbar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="#09B3FF"
        android:minHeight="?attr/actionBarSize"
        android:theme="?attr/actionBarTheme"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:titleTextColor="@color/black"/>

    <LinearLayout
        android:id="@+id/linearLayout2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="#09B3FF"
        android:orientation="horizontal"
        android:padding="15dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/Toolbar">

        <ImageView
            android:id="@+id/previousDateBtn"
            android:layout_width="19dp"
            android:layout_height="23dp"
            app:srcCompat="@drawable/previous"
            tools:ignore="ContentDescription" />

        <TextView
            android:id="@+id/currentDate"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:gravity="center"
            android:text="Sep 2, 2024"
            android:textColor="@color/black"
            android:textColorLink="#09B1FD"
            android:textSize="16sp"
            tools:ignore="HardcodedText" />

        <ImageView
            android:id="@+id/nextDateBtn"
            android:layout_width="19dp"
            android:layout_height="22dp"
            app:srcCompat="@drawable/next"
            tools:ignore="ContentDescription" />
    </LinearLayout>

    <com.google.android.material.tabs.TabLayout
        android:id="@+id/tabLayout"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="#09B2FE"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/linearLayout2"
```

```
app:tabIndicatorColor="#00838F"
app:tabMode="fixed"
app:tabTextColor="@color/white">

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Daily"
    tools:ignore="HardcodedText" />

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Monthly"
    tools:ignore="HardcodedText" />

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Calendar"
    tools:ignore="HardcodedText" />

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Summary"
    tools:ignore="HardcodedText" />

<com.google.android.material.tabs.TabItem
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Notes"
    tools:ignore="HardcodedText" />
</com.google.android.material.tabs.TabLayout>

<LinearLayout
    android:id="@+id/linearLayout7"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="5dp"
    app:layout_constraintTop_toBottomOf="@+id/tabLayout"
    tools:ignore="DisableBaselineAlignment">

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:gravity="center"
    android:orientation="vertical">

<TextView
    android:id="@+id/textView8"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:text="Income"
    tools:ignore="HardcodedText" />

<TextView
    android:id="@+id/incomeLbl"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="3dp"
    android:gravity="center"
    android:text="0.0"
    android:textColor="#00FF00"
    tools:ignore="HardcodedText" />
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_weight="1"
    android:gravity="center"
    android:orientation="vertical">

    <TextView
        android:id="@+id/textView6"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:text="Expense"
        tools:ignore="HardcodedText" />

    <TextView
        android:id="@+id/expenseLbl"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="3dp"
        android:gravity="center"
        android:text="0.0"
        android:textColor="#FF0000"
        tools:ignore="HardcodedText" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_weight="1"
        android:gravity="center"
        android:orientation="vertical">

        <TextView
            android:id="@+id/textView3"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:gravity="center"
            android:text="Total"
            tools:ignore="HardcodedText" />

        <TextView
            android:id="@+id/totalLbl"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="3dp"
            android:gravity="center"
            android:text="0.0"
            tools:ignore="HardcodedText" />
    </LinearLayout>

    </LinearLayout>

<com.google.android.material.bottomnavigation.BottomNavigationView
    android:id="@+id/bottomNavigationView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="540dp"
    android:layout_weight="1"
    android:background="#09B2FE"
    app:itemIconTint="@color/black"
    app:itemTextColor="@color/white"
    app:labelVisibilityMode="labeled"
    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/linearLayout7"
    app:menu="@menu/bottom_menu" />
```

```
<com.google.android.material.floatingactionbutton.FloatingActionButton
    android:id="@+id/FloatingActionButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="8dp"
    android:layout_marginBottom="8dp"
    android:clickable="true"
    app:backgroundTint="#09B1FD"
    app:layout_constraintBottom_toTopOf="@+id/bottomNavigationView"
    app:layout_constraintEnd_toEndOf="parent"
    app:srcCompat="@drawable/plus"
    tools:ignore="ContentDescription,KeyboardInaccessibleWidget" />

<androidx.recyclerview.widget.RecyclerView
    android:id="@+id/transactionsList"
    android:layout_width="0dp"
    android:layout_height="0dp"
    app:layout_constraintBottom_toTopOf="@+id/bottomNavigationView"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/linearLayout7"
    tools:listitem="@layout/row_transaction"/>

<ImageView
    android:id="@+id/nodata"
    android:layout_width="100dp"
    android:layout_height="100dp"
    android:alpha="0.5"
    android:visibility="gone"
    app:layout_constraintBottom_toTopOf="@+id/bottomNavigationView"
    app:layout_constraintEnd_toEndOf="@+id/transactionsList"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/linearLayout7"
    app:srcCompat="@drawable/no_data"
    tools:ignore="ContentDescription" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Expense Manager Version control Pixel 8 API 26 app C ☰

Project Resources Gradle ... Build Run App Quiz Logcat Problems Terminal Version

Android

app

manifests java (generated) res (generated) Gradle Scripts

(app) </> fragment_add_transaction.xml Helper.java MainActivity.java

1 package com.arpitrawat.expensemanger.views.activities;
2
3 import android.os.Bundle;
4 import android.view.Menu;
5 import android.view.View;
6
7 import androidx.appcompat.app.AppCompatActivity;
8 import androidx.lifecycle.Observer;
9 import androidx.lifecycle.ViewModelProvider;
10 import androidx.recyclerview.widget.LinearLayoutManager;
11
12 import com.arpitrawat.expensemanger.adapters.TransactionsAdapter;
13 import com.arpitrawat.expensemanger.models.Transaction;
14 import com.arpitrawat.expensemanger.utils.Constants;
15 import com.arpitrawat.expensemanger.utils.Helper;
16 import com.arpitrawat.expensemanger.viewmodel.MainViewModel;
17 import com.arpitrawat.expensemanger.views.fragments.AddTransactionFragment;
18 import com.arpitrawat.expensemanger.R;
19 import com.arpitrawat.expensemanger.databinding.ActivityMainBinding;
20 import com.google.android.material.tabs.TabLayout;
21
22 import java.util.Calendar;
23 import java.util.Objects;
24
25 import io.realm.RealmResults;
26
27 </> public class MainActivity extends AppCompatActivity {
28
29
30 ActivityMainBinding binding; 16 usages
31
32 /*
33 * 0 = Daily
34 * 1 = Monthly

ExpenseManager > app > src > main > java > com > arpitrawat > expensemanger > views > activities > MainActivity

The screenshot shows the Android Studio interface with the following details:

- Project Bar:** Shows "Expense Manager" and "Version control".
- Toolbar:** Includes icons for Device (Pixel 8 API 26), App, and other development tools.
- Sidemenu:** Lists "Android", "Resource", "Gradle", "...", "Build", "Run", "App Qu...", "Logcat", "Problem", "Terminal", and "Version".
- Project Tree:** Shows the project structure under "app": "manifests", "java", "java (generated)", "res", "res (generated)", and "Gradle Scripts".
- Code Editor:** Displays the "MainActivity.java" code. The code handles the creation of an activity, setting up a binding, and displaying transactions from a database. It includes imports for various Android libraries and custom classes like TransactionsAdapter and MainViewModel.
- Bottom Navigation:** Shows the full path: ExpenseManager > app > src > main > java > com > arpitrawat > expensemanger > views > activities > MainActivity.

MainActivity.java

```
package com.arpitrawat.expensemanger.views.activities;

import android.os.Bundle;
import android.view.Menu;
import android.view.View;

import androidx.appcompat.app.AppCompatActivity;
import androidx.lifecycle.Observer;
import androidx.lifecycle.ViewModelProvider;
import androidx.recyclerview.widget.LinearLayoutManager;

import com.arpitrawat.expensemanger.adapters.TransactionsAdapter;
import com.arpitrawat.expensemanger.models.Transaction;
import com.arpitrawat.expensemanger.utils.Constants;
import com.arpitrawat.expensemanger.utils.Helper;
import com.arpitrawat.expensemanger.viewmodel.MainViewModel;
import com.arpitrawat.expensemanger.views.fragments.AddTransactionFragment;
import com.arpitrawat.expensemanger.R;
import com.arpitrawat.expensemanger.databinding.ActivityMainBinding;
import com.google.android.material.tabs.TabLayout;

import java.util.Calendar;
import java.util.Objects;

import io.realm.RealmResults;
```

```
public class MainActivity extends AppCompatActivity {  
  
    ActivityMainBinding binding;  
  
    /*  
     * 0 = Daily  
     * 1 = Monthly  
     * 2 = Calendar  
     * 3 = Summary  
     * 4 = Notes  
     */  
  
    Calendar calendar;  
  
    public MainViewModel viewModel;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        binding = ActivityMainBinding.inflate(getLayoutInflater());  
        setContentView(binding.getRoot());  
  
        viewModel = new ViewModelProvider(this).get(MainViewModel.class);  
  
        setSupportActionBar(binding.Toolbar);  
        Objects.requireNonNull(getSupportActionBar()).setTitle("Transactions");  
  
        Constants.setCategories();  
  
        calendar = Calendar.getInstance();  
        updateDate();  
  
        binding.nextDateBtn.setOnClickListener(c->{  
            if(Constants.SELECTED_TAB == Constants.DAILY) {  
                calendar.add(Calendar.DATE, 1);  
            } else if(Constants.SELECTED_TAB == Constants.MONTHLY){  
                calendar.add(Calendar.MONTH, 1);  
            }  
            updateDate();  
        });  
  
        binding.perviousDateBtn.setOnClickListener(c->{  
            if(Constants.SELECTED_TAB == Constants.DAILY) {  
                calendar.add(Calendar.DATE, -1);  
            } else if(Constants.SELECTED_TAB == Constants.MONTHLY){  
                calendar.add(Calendar.MONTH, -1);  
            }  
            updateDate();  
        });  
  
        binding.FloatingActionButton.setOnClickListener(c-> new AddTransactionFragment().show(getSupportFragmentManager(), null));  
  
        binding.transactionsList.setLayoutManager(new LinearLayoutManager(this));  
  
        viewModel.transactions.observe(this, transactions -> {  
            TransactionsAdapter transactionsAdapter = new TransactionsAdapter(MainActivity.this, transactions);  
            binding.transactionsList.setAdapter(transactionsAdapter);  
            if(!transactions.isEmpty()) {  
                binding.nodata.setVisibility(View.GONE);  
            } else {  
                binding.nodata.setVisibility(View.VISIBLE);  
            }  
        });  
  
        binding.tabLayout.addOnTabSelectedListener(new TabLayout.OnTabSelectedListener() {  
            @Override  
            
```

```
public void onTabSelected(TabLayout.Tab tab) {
if(Objects.equals(tab.getText(), "Monthly")){
Constants.SELECTED_TAB = 1;
updateDate();
} else if(Objects.equals(tab.getText(), "Daily")){
Constants.SELECTED_TAB = 0;
updateDate();
}
}

@Override
public void onTabUnselected(TabLayout.Tab tab) {

}

@Override
public void onTabReselected(TabLayout.Tab tab) {

};

viewModel.totalIncome.observe(this, aDouble -> binding.incomeLbl.setText(String.valueOf(aDouble)));

viewModel.totalExpense.observe(this, aDouble -> binding.expenseLbl.setText(String.valueOf(aDouble)));

viewModel.totalAmount.observe(this, aDouble -> binding.totalLbl.setText(String.valueOf(aDouble)));
viewModel.getTransactions(calendar);

}

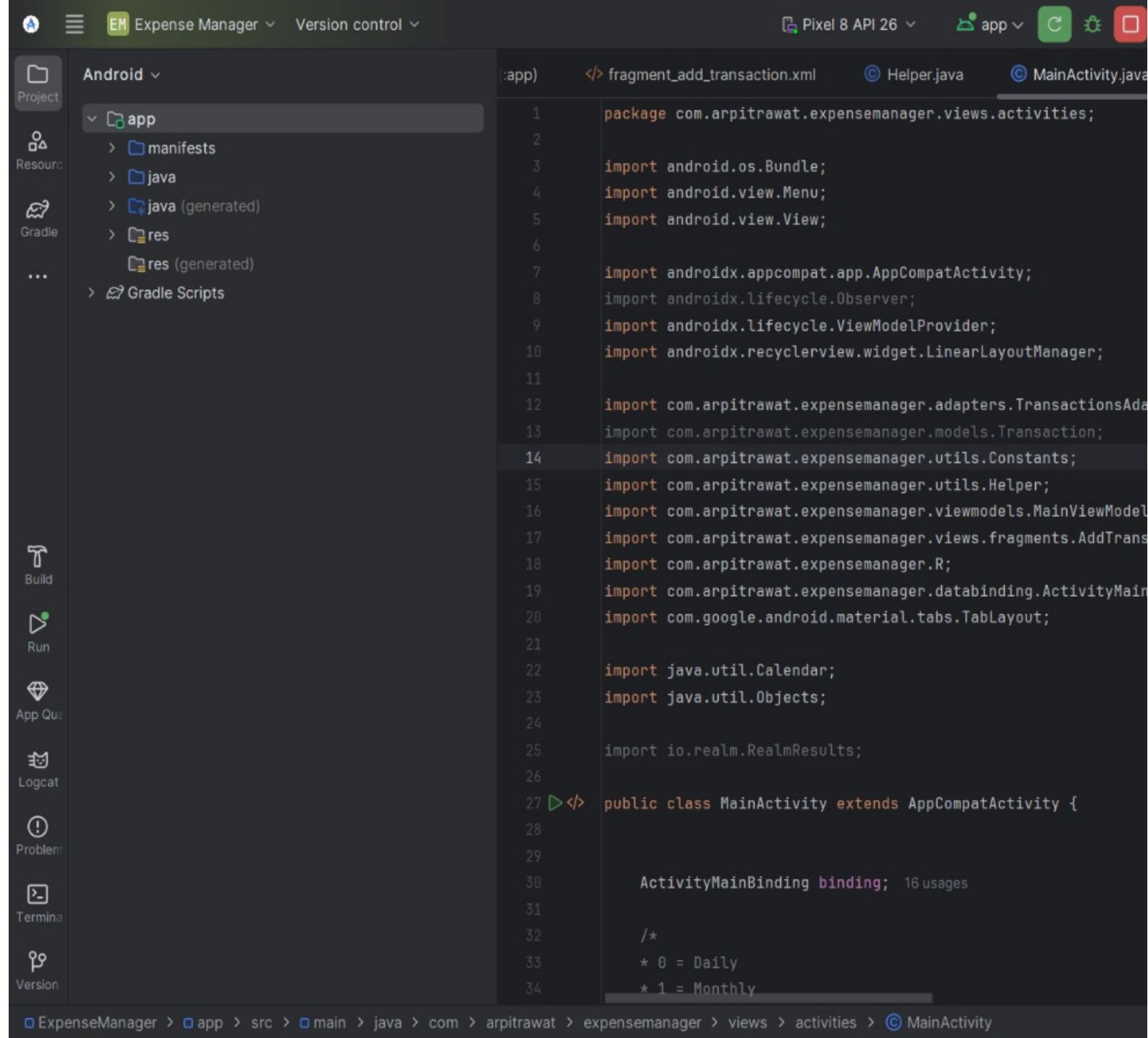
public void getTransactions(){
viewModel.getTransactions(calendar);
}

void updateDate(){

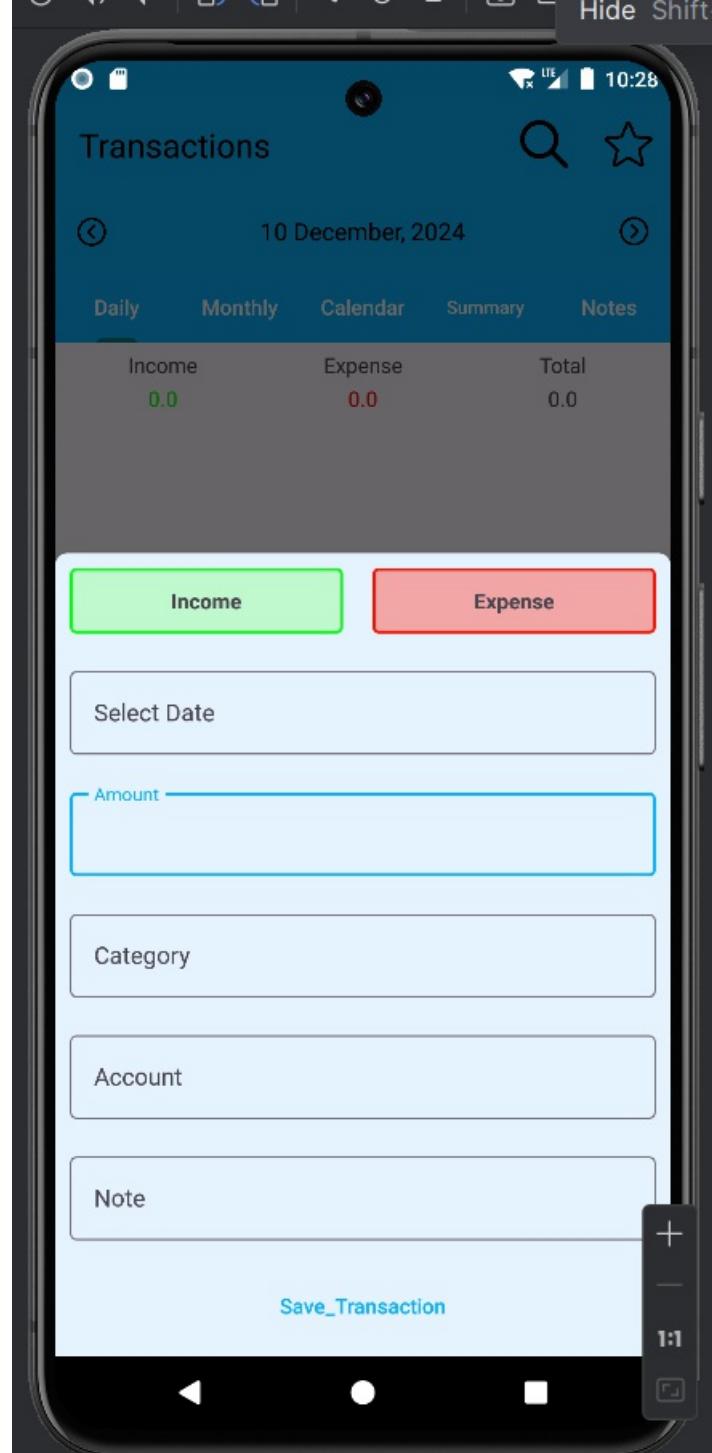
if(Constants.SELECTED_TAB == Constants.DAILY){
binding.currentDate.setText(Helper.formatDate(calendar.getTime()));
} else if(Constants.SELECTED_TAB == Constants.MONTHLY){
binding.currentDate.setText(Helper.formatDateByMonth(calendar.getTime()));
}
viewModel.getTransactions(calendar);
}

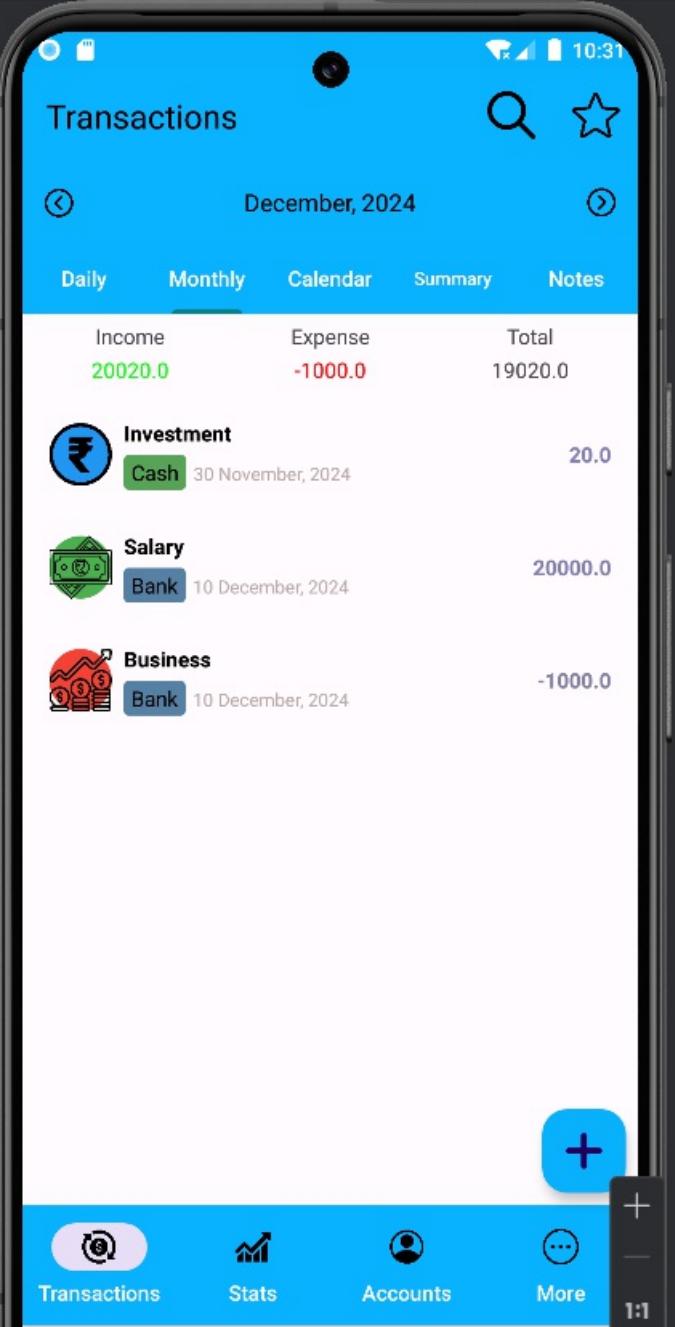
@Override
public boolean onCreateOptionsMenu(Menu menu) {
getMenuInflater().inflate(R.menu.top_menu,menu);
return super.onCreateOptionsMenu(menu);
}

}
```



OUTPUT:-





Expense Manager Version control Pixel 8 API 26 app C

Android Project Resources Gradle ...

app

```
(app) </> fragment_add_transaction.xml Helper.java MainActivity.java
```

27 public class MainActivity extends AppCompatActivity {
46 protected void onCreate(Bundle savedInstanceState) {
120 super.onCreate(savedInstanceState);
121 setContentView(R.layout.fragment_add_transaction);
122 binding = new TransactionBinding.inflate(LayoutInflater.from(this));
123 binding.setLifecycleOwner(this);
124 binding.addBtn.setOnClickListener(v -> addTransaction());
125 binding.cancelBtn.setOnClickListener(v -> cancel());
126 binding.amountEditText.addTextChangedListener(amountTextWatcher);
127 > del.getTransactions(calendar); }
130
131
132
133
134 tants.DAILY){
135 lper.formatDate(calendar.getTime());
136 }= Constants.MONTHLY){
137 lper.formatDateByMonth(calendar.getTime());
138 };
139
140
141
142
143 @Override
144 public boolean onCreateOptionsMenu(Menu menu) {
145 getMenuInflater().inflate(R.menu.main_menu, menu);
146 return true;
147 }

ExpenseManager > app