

Small Change

Slot C || Expense Management App

Guided By

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Section and slot: C-CSE 4002-TH-ONL00169

The project can be found in the link
given below on Github for better
visualization of the App
[https://github.com/Abhayindia/Expense-
Management-App](https://github.com/Abhayindia/Expense-Management-App)

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Abstract

In today's busy and expensive life we are in a great rush to make money. But at the end of the month we broke off. As we are unknowingly spending money on little and unwanted things. So, we have come over with the idea to track our earnings. Small Change aims to help everyone who are planning to know their expenses and save from it. Small Change is an app which users can execute in their mobile phones and update their daily expenses so that they are well known to their expenses. Here user can define their own categories for expense type like food, clothing, rent and bills where they have to enter the money that has been spent and also can add some information in additional information to specify the expense. User can also define expense categories. User will be able to see pie chart of expense. Although this app is focused on new job holders, interns and teenagers, everyone who wants to track their expense can use this app.

Introduction

Small Change is designed to keep a track of Income-Expense of a person on a day-to-day basis. This System divides the Income based on daily expenses. If you exceed day's expense, system will cut it from your income and will provide new daily expense allowed amount. If that day's expense is less, system will add it in savings. Daily expense tracking System will generate report at the end of month to show Income-Expense Curve. It will let you add the savings amount, which you had saved for some particular Festivals or days like Birthday or Anniversary. Daily Expense Tracker System is a system which will keep a track of Income-Expense of a person on a day to day basics. Small Change aims to help everyone who are planning to know their expenses and save from it. Small Change is an android app which users can execute in their mobile phones and update their daily expenses so that they are well known to their expenses. Here user can define their own categories for expense type like food, clothing, rent and bills where they have to enter the money that has been spent and also can add some information in additional information to specify the expense. User can also define expense categories. User will be able to see pie chart of expense.

Source Code

Data.java

```
public class Data {
    private int amount;
    private String type;
    private String note;
    private String id;
    private String date;
    public Data(int amount, String type, String note, String id, String
date) {
        this.amount = amount;
        this.type = type;
        this.note = note;
        this.id = id;
        this.date = date;
    }
    public int getAmount() {
        return amount;
    }
    public void setAmount(int amount) {
        this.amount = amount;
    }
    public String getType() {
        return type;
    }
    public void setType(String type) {
        this.type = type;
    }
    public String getNote() {
        return note;
    }
    public void setNote(String note) {
        this.note = note;
    }

    public String getId() {
        return id;
    }

    public void setId(String id) {
        this.id = id;
    }

    public String getDate() {
        return date;
    }

    public void setDate(String date) {
        this.date = date;
    }

    public Data(){
    }
}
```

User.java

```
public class User {
    public String id;
    public String username;
    /*public int userImg;*/

    public User(String id, String username) {
        this.id = id;
        this.username = username;
    }

    public User() {

    }

    public String getId() {
        return id;
    }

    public void setId(String id) {
        this.id = id;
    }

    public String getUsername() {
        return username;
    }

    public void setUsername(String username) {
        this.username = username;
    }
}
```

Dashboard.java

```
import android.os.Bundle;

import androidx.annotation.NonNull;
import androidx.cardview.widget.CardView;
import androidx.constraintlayout.widget.ConstraintLayout;
import androidx.fragment.app.Fragment;

import android.util.Log;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ImageView;
import android.widget.ProgressBar;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;

import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.Query;
import com.google.firebase.database.ValueEventListener;
```

```

import com.google.firebase.storage.FirebaseStorage;
import com.google.firebase.storage.StorageReference;
import com.squareup.picasso.Picasso;

import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Calendar;
import java.util.Date;
import java.util.List;

import id.ac.umh.leleair.kelompok.smallchange.Model.Data;
import id.ac.umh.leleair.kelompok.smallchange.Model.User;

public class Dashboard extends Fragment {
    private ImageView upperBox, upperBox2, user_photo, backgroundBox;
    private TextView welocomeText, username, incomeText, outcomeText,
currentBalance, tvViewHistory;
    private ConstraintLayout userInfo;
    private ProgressBar incomeProgress, outcomeProgress;
    private CardView photoContainer;
    private int sumOutcome, sumIncome;
    private float totIncome, totOutcome;
    private String stTotalValue, stUsername;
    private RadioGroup radioGroup;
    private RadioButton checkedRadioButton;

    //Firebase
    private FirebaseAuth mAuth;
    private DatabaseReference mIncomeDatabase;
    private DatabaseReference mOutcomeDatabase;
    private DatabaseReference mUsername;
    private DatabaseReference mImage;
    private StorageReference storageProfileImg;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
        Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        View view = inflater.inflate(R.layout.fragment_dashboard,
container, false);

        //Firebase Initialization
        mAuth = FirebaseAuth.getInstance();
        FirebaseUser mUser = mAuth.getCurrentUser();
        String uid = mUser.getId();

        mUsername =
FirebaseDatabase.getInstance().getReference().child("Username").child(uid);
        mIncomeDatabase =
FirebaseDatabase.getInstance().getReference().child("IncomeData").child(uid);
        mOutcomeDatabase =
FirebaseDatabase.getInstance().getReference().child("OutcomeData").child(ui
d);
        mImage =
FirebaseDatabase.getInstance().getReference().child("User");

```



```

        storageProfileImg =
FirebaseStorage.getInstance().getReference().child("Profile Img");

        upperBox = view.findViewById(R.id.upperBox);
        upperBox2 = view.findViewById(R.id.upperBox2);
        welocomeText = view.findViewById(R.id.tvHello);
        username = view.findViewById(R.id.usernameDashboard);
        userInfo = view.findViewById(R.id.userInfoContainer);
        incomeText = view.findViewById(R.id.income_progressText);
        incomeProgress = view.findViewById(R.id.income_progressBar);
        outcomeText = view.findViewById(R.id.outcome_progressText);
        outcomeProgress = view.findViewById(R.id.outcome_progressBar);
        user_photo = view.findViewById(R.id.photoProfile);
        backgroundBox = view.findViewById(R.id.backgroundBox);
        photoContainer = view.findViewById(R.id.photoProfileContainer);
        currentBalance = view.findViewById(R.id.tvCurrentBalance);
        tvViewHistory = view.findViewById(R.id.tvViewHistory);
        radioGroup = view.findViewById(R.id.RadioFilter);
        checkedRadioButton =
(RadioButton) radioGroup.findViewById(radioGroup.getCheckedRadioButtonId());

        checkDatabaseUpdate();

        statisticFilter();
        radioGroup.check(R.id.RadioToday);

        upperBox.animate().translationX(0).alpha(1).setDuration(800);

upperBox2.animate().translationX(0).alpha(1).setDuration(800).setStartDelay(
1000);

userInfo.animate().translationX(0).alpha(1).setDuration(800).setStartDelay(
600);

backgroundBox.animate().translationY(0).alpha(1).setDuration(800).setStartD
elay(600);

photoContainer.animate().alpha(1).setDuration(600).setStartDelay(1400);

        tvViewHistory.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                HomeActivity.viewPager.setCurrentItem(3);
                HomeActivity.tabLayoutHome.getTabAt(3).select();
            }
        });

        return view;
    }

    private void statisticFilter() {
        // This overrides the radiogroup onCheckedChangeListener
        radioGroup.setOnCheckedChangeListener(new
RadioGroup.OnCheckedChangeListener()
        {
            public void onCheckedChanged(RadioGroup group, int checkedId)
            {
                Query incomeQuery, outcomeQuery;
                String dateTarget;

                SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-dd");

```

```

        Calendar cal = Calendar.getInstance();
        Date date = cal.getTime();
        String mDate = df.format(date);

        // This will get the radiobutton that has changed in its
check state
        RadioButton checkedRadioButton =
(RadioButton)group.findViewById(checkedId);
        // This puts the value (true/false) into the variable
        boolean isChecked = checkedRadioButton.isChecked();
        // If the radiobutton that has changed in check state is
now checked...
        if (isChecked)
        {
            if(checkedId == R.id.RadioToday) {
                incomeQuery =
mIncomeDatabase.orderByChild("date").startAt(mDate).endAt(mDate);
                outcomeQuery =
mOutcomeDatabase.orderByChild("date").startAt(mDate).endAt(mDate);

                incomeQuery.addValueEventListener(new
ValueEventListener() {
                    @Override
                    public void onDataChange(@NonNull DataSnapshot
snapshot) {
                        totIncome = 0;

                        for(DataSnapshot
dataSnapshot:snapshot.getChildren()){
                            Data data =
dataSnapshot.getValue(Data.class);
                            assert data != null;
                            totIncome += data.getAmount();
                        }

                        ProgressBarAnimation anim1 = new
ProgressBarAnimation(incomeProgress, incomeText, 0,
calculatePercentage(totIncome, totOutcome));
                        ProgressBarAnimation anim2 = new
ProgressBarAnimation(outcomeProgress, outcomeText, 0,
calculatePercentage(totOutcome, totIncome));
                        anim1.setDuration(1400);
                        anim2.setDuration(1400);
                        incomeProgress.startAnimation(anim1);
                        outcomeProgress.startAnimation(anim2);
                    }
                    @Override
                    public void onCancelled(@NonNull DatabaseError
error) {}
                });

                outcomeQuery.addValueEventListener(new
ValueEventListener() {
                    @Override
                    public void onDataChange(@NonNull DataSnapshot
snapshot) {
                        totOutcome = 0;

                        for(DataSnapshot
dataSnapshot:snapshot.getChildren()){
                            Data data =

```

```

dataSnapshot.getValue(Data.class);
                                assert data != null;
                                totOutcome += data.getAmount();
                                }

                                ProgressBarAnimation anim1 = new
ProgressBarAnimation(incomeProgress, incomeText, 0,
calculatePercentage(totIncome, totOutcome));
                                ProgressBarAnimation anim2 = new
ProgressBarAnimation(outcomeProgress, outcomeText, 0,
calculatePercentage(totOutcome, totIncome));
                                anim1.setDuration(1400);
                                anim2.setDuration(1400);
                                incomeProgress.startAnimation(anim1);
                                outcomeProgress.startAnimation(anim2);
                                }

                                @Override
                                public void onCancelled(@NonNull DatabaseError
error) {}

                                });
                                }
                                else if (checkedId == R.id.Radio7D) {
                                cal.add(Calendar.DATE, -7);
                                date = cal.getTime();
                                dateTarget = df.format(date);

                                incomeQuery =
mIncomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);
                                outcomeQuery =
mOutcomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);

                                incomeQuery.addValueEventListener(new
ValueEventListener() {
                                @Override
                                public void onDataChange(@NonNull DataSnapshot
snapshot) {

                                totIncome = 0;

                                for(DataSnapshot
dataSnapshot:snapshot.getChildren()){
                                Data data =
dataSnapshot.getValue(Data.class);
                                assert data != null;
                                totIncome += data.getAmount();
                                }

                                ProgressBarAnimation anim1 = new
ProgressBarAnimation(incomeProgress, incomeText, 0,
calculatePercentage(totIncome, totOutcome));
                                ProgressBarAnimation anim2 = new
ProgressBarAnimation(outcomeProgress, outcomeText, 0,
calculatePercentage(totOutcome, totIncome));
                                anim1.setDuration(1400);
                                anim2.setDuration(1400);
                                incomeProgress.startAnimation(anim1);
                                outcomeProgress.startAnimation(anim2);
                                }
                                @Override
                                public void onCancelled(@NonNull DatabaseError
error) {}

```

```

        });

        outcomeQuery.addValueEventListener(new
ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot
snapshot) {

                totOutcome = 0;

                for(DataSnapshot
dataSnapshot:snapshot.getChildren()) {
                    Data data =
dataSnapshot.getValue(Data.class);
                    assert data != null;
                    totOutcome += data.getAmount();
                }

                ProgressBarAnimation anim1 = new
ProgressBarAnimation(incomeProgress, incomeText, 0,
calculatePercentage(totIncome, totOutcome));
                ProgressBarAnimation anim2 = new
ProgressBarAnimation(outcomeProgress, outcomeText, 0,
calculatePercentage(totOutcome, totIncome));
                anim1.setDuration(1400);
                anim2.setDuration(1400);
                incomeProgress.startAnimation(anim1);
                outcomeProgress.startAnimation(anim2);
            }

            @Override
            public void onCancelled(@NonNull DatabaseError
error) {}

        });
    }
    else if (checkedId == R.id.Radio31D) {
        cal.add(Calendar.DATE, -31);
        date = cal.getTime();
        dateTarget = df.format(date);

        incomeQuery =
mIncomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);
        outcomeQuery =
mOutcomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);

        incomeQuery.addValueEventListener(new
ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot
snapshot) {

                totIncome = 0;

                for(DataSnapshot
dataSnapshot:snapshot.getChildren()) {
                    Data data =
dataSnapshot.getValue(Data.class);
                    assert data != null;
                    totIncome += data.getAmount();
                }

                ProgressBarAnimation anim1 = new
ProgressBarAnimation(incomeProgress, incomeText, 0,

```

```

calculatePercentage(totIncome, totOutcome));
        ProgressBarAnimation anim2 = new
ProgressBarAnimation(outcomeProgress, outcomeText, 0,
calculatePercentage(totOutcome, totIncome));
        anim1.setDuration(1400);
        anim2.setDuration(1400);
        incomeProgress.startAnimation(anim1);
        outcomeProgress.startAnimation(anim2);
    }
    @Override
    public void onCancelled(@NonNull DatabaseError
error) {}

    });

    outcomeQuery.addValueEventListener(new
ValueEventListener() {
        @Override
        public void onDataChange(@NonNull DataSnapshot
snapshot) {
            totOutcome = 0;

            for(DataSnapshot
dataSnapshot:snapshot.getChildren()){
                Data data =
dataSnapshot.getValue(Data.class);
                assert data != null;
                totOutcome += data.getAmount();
            }

            ProgressBarAnimation anim1 = new
ProgressBarAnimation(incomeProgress, incomeText, 0,
calculatePercentage(totIncome, totOutcome));
            ProgressBarAnimation anim2 = new
ProgressBarAnimation(outcomeProgress, outcomeText, 0,
calculatePercentage(totOutcome, totIncome));
            anim1.setDuration(1400);
            anim2.setDuration(1400);
            incomeProgress.startAnimation(anim1);
            outcomeProgress.startAnimation(anim2);
        }

        @Override
        public void onCancelled(@NonNull DatabaseError
error) {}

    });
}

}

});
}

public void checkDatabaseUpdate() {
    mUsername.addValueEventListener(new ValueEventListener() {
        @Override
        public void onDataChange(@NonNull DataSnapshot snapshot) {
            stUsername = "";

            for(DataSnapshot mSnapshot:snapshot.getChildren()){
                User user = mSnapshot.getValue(User.class);
                assert user != null;
                stUsername = user.getUsername();
            }
        }
    });
}

```

```

        }
        username.setText(stUsername);
    }

    @Override
    public void onCancelled(@NonNull DatabaseError error) {
    }

    });

    mIncomeDatabase.addValueEventListener(new ValueEventListener() {
        @Override
        public void onDataChange(@NonNull DataSnapshot snapshot) {
            sumIncome = 0;

            for(DataSnapshot dataSnapshot:snapshot.getChildren()){
                Data data = dataSnapshot.getValue(Data.class);
                assert data != null;
                sumIncome += data.getAmount();
            }

            stTotalValue = String.valueOf(sumIncome-sumOutcome);
            currentBalance.setText(stTotalValue);
        }

        @Override
        public void onCancelled(@NonNull DatabaseError error) { }
    });

    mOutcomeDatabase.addValueEventListener(new ValueEventListener() {
        @Override
        public void onDataChange(@NonNull DataSnapshot snapshot) {
            sumOutcome = 0;

            for(DataSnapshot dataSnapshot:snapshot.getChildren()){
                Data data = dataSnapshot.getValue(Data.class);
                assert data != null;
                sumOutcome += data.getAmount();
            }

            //Debug Only
            Log.i("Income",String.valueOf(sumIncome));
            Log.i("Outcome",String.valueOf(sumOutcome));

            stTotalValue = String.valueOf(sumIncome-sumOutcome);
            currentBalance.setText(stTotalValue);
        }

        @Override
        public void onCancelled(@NonNull DatabaseError error) { }
    });

    mImage.child(mAuth.getCurrentUser().getUid()).addValueEventListener(new
    ValueEventListener() {
        @Override
        public void onDataChange(@NonNull DataSnapshot dataSnapshot) {
            if (dataSnapshot.exists() &&
            dataSnapshot.getChildrenCount() > 0){
                if (dataSnapshot.hasChild("image"))
                {

```

```

        String image =
dataSnapshot.child("image").getValue().toString();
        Picasso.get().load(image).into(user_photo);
    }
}

@Override
public void onCancelled(@NonNull DatabaseError error) {

}

});
}

public float calculatePercentage(float x, float y){
    float percentage;
    Log.i("xValue", String.valueOf(x));
    Log.i("yValue", String.valueOf(y));
    percentage = Math.round ((x / (x+y)) * 100);
    Log.i("xValue", String.valueOf(x));
    Log.i("yValue", String.valueOf(y));
    Log.i("Percentage", String.valueOf(percentage));
    return percentage;
}

public void playAnimIn() {
    ProgressBarAnimation anim1 = new
ProgressBarAnimation(incomeProgress, incomeText, 0,
calculatePercentage(totIncome, totOutcome));
    ProgressBarAnimation anim2 = new
ProgressBarAnimation(outcomeProgress, outcomeText, 0,
calculatePercentage(totOutcome, totIncome));
    anim1.setDuration(1400);
    anim2.setDuration(1400);
    incomeProgress.startAnimation(anim1);
    outcomeProgress.startAnimation(anim2);

backgroundBox.animate().translationY(0).alpha(1).setDuration(800).setStartD
elay(600);
}

public void playAnimOut() {
    ProgressBarAnimation anim1 = new
ProgressBarAnimation(incomeProgress, incomeText,
calculatePercentage(totIncome, totOutcome), 0);
    ProgressBarAnimation anim2 = new
ProgressBarAnimation(outcomeProgress, outcomeText,
calculatePercentage(totOutcome, totIncome), 0);
    anim1.setDuration(1400);
    anim2.setDuration(1400);
    incomeProgress.startAnimation(anim1);
    outcomeProgress.startAnimation(anim2);

backgroundBox.animate().translationY(400).alpha(0).setDuration(800).setStar
tDelay(600);
}
}

```

History.java

```
import android.content.Context;
import android.os.Bundle;

import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.fragment.app.Fragment;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.LinearSnapHelper;
import androidx.recyclerview.widget.RecyclerView;
import androidx.recyclerview.widget.SnapHelper;

import android.view.ContextThemeWrapper;
import android.view.LayoutInflater;
import android.view.MenuItem;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.PopupMenu;
import android.widget.TextView;
import android.widget.Toast;

import com.firebase.ui.database.FirebaseRecyclerAdapter;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.ChildEventListener;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.Query;

import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Date;

import id.ac.umn.leleair.kelompok.smallchange.Model.Data;
import www.sanju.zoomrecyclerlayout.ZoomRecyclerLayout;

public class History extends Fragment {
    private ImageView backgroundBox;
    private TextView tvIncome, tvOutcome;
    private Button showFilterBtn;

    //Firebase
    private FirebaseAuth mAuth;
    private Query mIncomeDatabase;
    private Query mOutcomeDatabase;

    //Recycler View
    private RecyclerView mRecyclerIncome;
    private RecyclerView mRecyclerOutcome;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
    }

    @Override
```



```

public View onCreateView(LayoutInflater inflater, ViewGroup container,
                        Bundle savedInstanceState) {
    // Inflate the layout for this fragment
    View view = inflater.inflate(R.layout.fragment_history, container,
false);

    //Firebase Initialization
    mAuth = FirebaseAuth.getInstance();
    FirebaseUser mUser = mAuth.getCurrentUser();
    String uid = mUser.getId();

    mIncomeDatabase =
FirebaseDatabase.getInstance().getReference().child("IncomeData").child(uid
);
    mOutcomeDatabase =
FirebaseDatabase.getInstance().getReference().child("OutcomeData").child(ui
d);

    backgroundBox = view.findViewById(R.id.backgroundBoxHistory);
    mRecyclerIncome = view.findViewById(R.id.recyclerIncome);
    mRecyclerOutcome = view.findViewById(R.id.recyclerOutcome);
    tvIncome = view.findViewById(R.id.tvIncome);
    tvOutcome = view.findViewById(R.id.tvOutcome);
    showFilterBtn = view.findViewById(R.id.btnFilter);

    //Setup RecyclerView
    LinearLayoutManager layoutManagerIncome = new
ZoomRecyclerViewLayout(getActivity(), LinearLayoutManager.HORIZONTAL, false);
    SnapHelper snapHelperIncome = new LinearSnapHelper();
    layoutManagerIncome.setStackFromEnd(true);
    layoutManagerIncome.setReverseLayout(true);
    snapHelperIncome.attachToRecyclerView(mRecyclerIncome);
    mRecyclerIncome.setHasFixedSize(true);
    mRecyclerIncome.setNestedScrollingEnabled(false);
    mRecyclerIncome.setLayoutManager(layoutManagerIncome);

    LinearLayoutManager layoutManagerOutcome = new
ZoomRecyclerViewLayout(getActivity(), LinearLayoutManager.HORIZONTAL, false);
    SnapHelper snapHelperOutcome = new LinearSnapHelper();
    layoutManagerOutcome.setStackFromEnd(true);
    layoutManagerOutcome.setReverseLayout(true);
    snapHelperOutcome.attachToRecyclerView(mRecyclerOutcome);
    mRecyclerOutcome.setHasFixedSize(true);
    mRecyclerOutcome.setNestedScrollingEnabled(false);
    mRecyclerOutcome.setLayoutManager(layoutManagerOutcome);

    //init popup menu
    Context wrapper = new
ContextThemeWrapper(getActivity().getApplicationContext(),
R.style.popupMenuStyle);
    PopupMenu popupMenu = new PopupMenu(wrapper, showFilterBtn);
    popupMenu.getMenuInflater().inflate(R.menu.filter_popup,
popupMenu.getMenu());

    //handle popup menu item clicks
    popupMenu.setOnMenuItemClickListener(new
PopupMenu.OnMenuItemClickListener() {
        @Override
        public boolean onMenuItemClick(MenuItem item) {
            int id = item.getItemId();
            Query incomeQuery, outcomeQuery;

```

```

        String dateTarget;

        SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-dd");
        Calendar cal = Calendar.getInstance();
        Date date = cal.getTime();
        String mDate = df.format(date);
        FirebaseRecyclerAdapter<Data, IncomeViewHolder>
incomeAdapter;
        FirebaseRecyclerAdapter<Data, OutcomeViewHolder>
outcomeAdapter;

        if (id == R.id.showAll){
            Toast.makeText(getActivity().getApplicationContext(),
"Show all transaction history", Toast.LENGTH_SHORT).show();

            incomeAdapter = new FirebaseRecyclerAdapter<Data,
IncomeViewHolder>
                (
                    Data.class,
                    R.layout.history_income_item,
                    History.IncomeViewHolder.class,
                    mIncomeDatabase
                ) {
                    @Override
                    protected void populateViewHolder(IncomeViewHolder
incomeViewHolder, Data model, int i) {
                        //parse date format
                        String unFormattedDate = model.getDate();
                        SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
                        Date date = null;
                        try {
                            date = inFormat.parse(unFormattedDate);
                        } catch (ParseException e) {
                            e.printStackTrace();
                        }
                        SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
                        String formattedDate = outFormat.format(date);

                        incomeViewHolder.setIncomeType(model.getType());

                        incomeViewHolder.setIncomeAmount(model.getAmount());
                        incomeViewHolder.setIncomeDate(formattedDate);
                    }
                };

            outcomeAdapter = new FirebaseRecyclerAdapter<Data,
OutcomeViewHolder>
                (
                    Data.class,
                    R.layout.history_outcome_item,
                    History.OutcomeViewHolder.class,
                    mOutcomeDatabase
                ) {
                    @Override
                    protected void populateViewHolder(OutcomeViewHolder
outcomeViewHolder, Data model, int i) {

```

```

        //parse date format
        String unFormattedDate = model.getDate();
        SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
        Date date = null;
        try {
            date = inFormat.parse(unFormattedDate);
        } catch (ParseException e) {
            e.printStackTrace();
        }
        SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
        String formattedDate = outFormat.format(date);

outcomeViewHolder.setOutcomeType(model.getType());

outcomeViewHolder.setOutcomeAmount(model.getAmount());

outcomeViewHolder.setOutcomeDate(formattedDate);
    }
    };
    mRecyclerIncome.setAdapter(incomeAdapter);
    mRecyclerOutcome.setAdapter(outcomeAdapter);
    return true;
}

else if (id == R.id.today) {
    Toast.makeText(getActivity().getApplicationContext(),
"Today transaction history", Toast.LENGTH_SHORT).show();

    incomeQuery =
mIncomeDatabase.orderByChild("date").startAt(mDate).endAt(mDate);
    outcomeQuery =
mOutcomeDatabase.orderByChild("date").startAt(mDate).endAt(mDate);

    incomeAdapter = new FirebaseRecyclerAdapter<Data,
IncomeViewHolder>
        (
            Data.class,
            R.layout.history_income_item,
            History.IncomeViewHolder.class,
            incomeQuery
        ) {
            @Override
            protected void populateViewHolder(IncomeViewHolder
incomeViewHolder, Data model, int i) {
                //parse date format
                String unFormattedDate = model.getDate();
                SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
                Date date = null;
                try {
                    date = inFormat.parse(unFormattedDate);
                } catch (ParseException e) {
                    e.printStackTrace();
                }
                SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
                String formattedDate = outFormat.format(date);

```

```

incomeViewHolder.setIncomeType(model.getType());

incomeViewHolder.setIncomeAmount(model.getAmount());
incomeViewHolder.setIncomeDate(formattedDate);
    }
};

outcomeAdapter = new FirebaseRecyclerAdapter<Data,
OutcomeViewHolder>
(
    Data.class,
    R.layout.history_outcome_item,
    History.OutcomeViewHolder.class,
    outcomeQuery
) {
    @Override
    protected void populateViewHolder(OutcomeViewHolder
outcomeViewHolder, Data model, int i) {
        //parse date format
        String unFormattedDate = model.getDate();
        SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
        Date date = null;
        try {
            date = inFormat.parse(unFormattedDate);
        } catch (ParseException e) {
            e.printStackTrace();
        }
        SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
        String formattedDate = outFormat.format(date);

outcomeViewHolder.setOutcomeType(model.getType());

outcomeViewHolder.setOutcomeAmount(model.getAmount());

outcomeViewHolder.setOutcomeDate(formattedDate);
    }
};
mRecyclerIncome.setAdapter(incomeAdapter);
mRecyclerOutcome.setAdapter(outcomeAdapter);
return true;
}

else if (id == R.id.sevenDays) {
    cal.add(Calendar.DATE, -7);
    date = cal.getTime();
    dateTarget = df.format(date);

    Toast.makeText(getActivity().getApplicationContext(),
"7 days transaction history", Toast.LENGTH_SHORT).show();

    incomeQuery =
mIncomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);
    outcomeQuery =
mOutcomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);

    incomeAdapter = new FirebaseRecyclerAdapter<Data,
IncomeViewHolder>

```

```

        (
            Data.class,
            R.layout.history_income_item,
            History.IncomeViewHolder.class,
            incomeQuery
        ) {
            @Override
            protected void populateViewHolder(IncomeViewHolder
incomeViewHolder, Data model, int i) {
                //parse date format
                String unFormattedDate = model.getDate();
                SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
                Date date = null;
                try {
                    date = inFormat.parse(unFormattedDate);
                } catch (ParseException e) {
                    e.printStackTrace();
                }
                SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
                String formattedDate = outFormat.format(date);

incomeViewHolder.setIncomeType(model.getType());

incomeViewHolder.setIncomeAmount(model.getAmount());
                incomeViewHolder.setIncomeDate(formattedDate);
            }
        };

        outcomeAdapter = new FirebaseRecyclerAdapter<Data,
OutcomeViewHolder>
        (
            Data.class,
            R.layout.history_outcome_item,
            History.OutcomeViewHolder.class,
            outcomeQuery
        ) {
            @Override
            protected void populateViewHolder(OutcomeViewHolder
outcomeViewHolder, Data model, int i) {
                //parse date format
                String unFormattedDate = model.getDate();
                SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
                Date date = null;
                try {
                    date = inFormat.parse(unFormattedDate);
                } catch (ParseException e) {
                    e.printStackTrace();
                }
                SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
                String formattedDate = outFormat.format(date);

outcomeViewHolder.setOutcomeType(model.getType());

outcomeViewHolder.setOutcomeAmount(model.getAmount());

```



```

        ) {
            @Override
            protected void populateViewHolder(OutcomeViewHolder
outcomeViewHolder, Data model, int i) {
                //parse date format
                String unFormattedDate = model.getDate();
                SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
                Date date = null;
                try {
                    date = inFormat.parse(unFormattedDate);
                } catch (ParseException e) {
                    e.printStackTrace();
                }
                SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
                String formattedDate = outFormat.format(date);

outcomeViewHolder.setOutcomeType(model.getType());

outcomeViewHolder.setOutcomeAmount(model.getAmount());

outcomeViewHolder.setOutcomeDate(formattedDate);
            }
        };
        mRecyclerIncome.setAdapter(incomeAdapter);
        mRecyclerOutcome.setAdapter(outcomeAdapter);
        return true;
    }
    return false;
}
});

showFilterBtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        popupMenu.show();
    }
});

return view;
}

@Override
public void onStart() {
    super.onStart();

    FirebaseRecyclerAdapter<Data, IncomeViewHolder> incomeAdapter = new
FirebaseRecyclerAdapter<Data, IncomeViewHolder>
    (
        Data.class,
        R.layout.history_income_item,
        History.IncomeViewHolder.class,
        mIncomeDatabase
    ) {
        @Override
        protected void populateViewHolder(IncomeViewHolder
incomeViewHolder, Data model, int i) {
            //parse date format
            String unFormattedDate = model.getDate();

```

```

SimpleDateFormat inFormat = new SimpleDateFormat("yyyy-MM-dd");

Date date = null;
try {
    date = inFormat.parse(unFormattedDate);
} catch (ParseException e) {
    e.printStackTrace();
}
SimpleDateFormat outFormat = new SimpleDateFormat("MMM dd,
yyyy");

String formattedDate = outFormat.format(date);

incomeViewHolder.setIncomeType(model.getType());
incomeViewHolder.setIncomeAmount(model.getAmount());
incomeViewHolder.setIncomeDate(formattedDate);
}
};

FirebaseRecyclerAdapter<Data, OutcomeViewHolder> outcomeAdapter =
new FirebaseRecyclerAdapter<Data, OutcomeViewHolder>
(
    Data.class,
    R.layout.history_outcome_item,
    History.OutcomeViewHolder.class,
    mOutcomeDatabase
) {
    @Override
    protected void populateViewHolder(OutcomeViewHolder
outcomeViewHolder, Data model, int i) {
        //parse date format
        String unFormattedDate = model.getDate();
        SimpleDateFormat inFormat = new SimpleDateFormat("yyyy-MM-
dd");

        Date date = null;
        try {
            date = inFormat.parse(unFormattedDate);
        } catch (ParseException e) {
            e.printStackTrace();
        }
        SimpleDateFormat outFormat = new SimpleDateFormat("MMM dd,
yyyy");

        String formattedDate = outFormat.format(date);

        outcomeViewHolder.setOutcomeType(model.getType());
        outcomeViewHolder.setOutcomeAmount(model.getAmount());
        outcomeViewHolder.setOutcomeDate(formattedDate);
    }
};

mRecyclerIncome.setAdapter(incomeAdapter);
mRecyclerOutcome.setAdapter(outcomeAdapter);
}

// Income Data
public static class IncomeViewHolder extends RecyclerView.ViewHolder {
    View mIncomeView;

    public IncomeViewHolder(View itemView) {
        super(itemView);
        mIncomeView = itemView;
    }
}

```



```

    public void setIncomeType(String type) {
        TextView mtype = mIncomeView.findViewById(R.id.IncomeTitle);
        mtype.setText(type);
    }

    public void setIncomeAmount(Integer amount) {
        TextView mAmount = mIncomeView.findViewById(R.id.IncomeAmount);
        String stAmount = String.valueOf(amount);
        mAmount.setText(stAmount);
    }

    public void setIncomeDate(String date) {
        TextView mDate = mIncomeView.findViewById(R.id.IncomeDate);
        mDate.setText(date);
    }
}

// Outcome Data
public static class OutcomeViewHolder extends RecyclerView.ViewHolder {
    View mOutcomeView;

    public OutcomeViewHolder(View itemView) {
        super(itemView);
        mOutcomeView = itemView;
    }

    public void setOutcomeType(String type) {
        TextView mtype = mOutcomeView.findViewById(R.id.OutcomeTitle);
        mtype.setText(type);
    }

    public void setOutcomeAmount(Integer amount) {
        TextView mAmount =
mOutcomeView.findViewById(R.id.OutcomeAmount);
        String stAmount = String.valueOf(amount);
        mAmount.setText(stAmount);
    }

    public void setOutcomeDate(String date) {
        TextView mDate = mOutcomeView.findViewById(R.id.OutcomeDate);
        mDate.setText(date);
    }
}

    public void playAnimOut(){
backgroundBox.animate().translationY(300).alpha(0).setDuration(200);
tvIncome.animate().scaleX(0.5f).scaleY(0.5f).alpha(0).setDuration(200);
mRecyclerIncome.animate().scaleX(0.5f).scaleY(0.5f).alpha(0).setDuration(200);
tvOutcome.animate().scaleX(0.5f).scaleY(0.5f).alpha(0).setDuration(200);
mRecyclerOutcome.animate().scaleX(0.5f).scaleY(0.5f).alpha(0).setDuration(200);
    }
}

```

```

        public void playAnimIn() {
            backgroundBox.animate().translationY(0).alpha(1).setDuration(600);
            tvIncome.animate().scaleX(1).scaleY(1).alpha(1).setDuration(400);

mRecyclerIncome.animate().scaleX(1).scaleY(1).alpha(1).setDuration(400);

            tvOutcome.animate().scaleX(1).scaleY(1).alpha(1).setDuration(400).setStartDelay(400);

mRecyclerOutcome.animate().scaleX(1).scaleY(1).alpha(1).setDuration(500).setStartDelay(400);
        }
    }
}

```

HomeActivity.java

```

import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.Fragment;
import androidx.viewpager.widget.ViewPager;

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

import com.google.android.material.tabs.TabLayout;

import java.util.ArrayList;

public class HomeActivity extends AppCompatActivity {

    //Initialize Variable
    public static TabLayout tabLayoutHome;
    public static ViewPager viewPager;

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

        //Assign Variable
        tabLayoutHome = findViewById(R.id.homeTabLayout);
        viewPager = findViewById(R.id.viewpagerHome);

        //Initialize View Pager
        ViewPagerAdapter adapter = new
ViewPagerAdapter(getSupportFragmentManager());
        adapter.addFrag(new Income());
        adapter.addFrag(new UserPanel());
        adapter.addFrag(new Dashboard());
        adapter.addFrag(new History());
        adapter.addFrag(new Outcome());
        viewPager.setAdapter(adapter);

        tabLayoutHome.setupWithViewPager(viewPager);
        setCustomTabs();
        viewPager.setCurrentItem(2);
        tabLayoutHome.getTabAt(2).select();

        tabLayoutHome.addTabSelectedListener(new
TabLayout.OnTabSelectedListener() {
            @Override

```

```

        public void onTabSelected(TabLayout.Tab tab) {
            viewPager.setCurrentItem(tab.getPosition());
            if(tab.getPosition() == 0) {
                Fragment income = adapter.getItem(0);
                ((Income) income).playAnimIn();
            }
            if(tab.getPosition() == 1) {
                Fragment userpanel = adapter.getItem(1);
                ((UserPanel) userpanel).playAnimIn();
            }
            if(tab.getPosition() == 2) {
                Fragment dashboard = adapter.getItem(2);
                ((Dashboard) dashboard).playAnimIn();
            }
            if(tab.getPosition() == 3) {
                Fragment history = adapter.getItem(3);
                ((History) history).playAnimIn();
            }
            if(tab.getPosition() == 4) {
                Fragment outcome = adapter.getItem(4);
                ((Outcome) outcome).playAnimIn();
            }
        }
        @Override
        public void onTabUnselected(TabLayout.Tab tab) {
            if(tab.getPosition() == 0) {
                Fragment income = adapter.getItem(0);
                ((Income) income).playAnimOut();
            }
            if(tab.getPosition() == 1){
                Fragment userpanel = adapter.getItem(1);
                ((UserPanel) userpanel).playAnimOut();
            }
            if(tab.getPosition() == 2) {
                Fragment dashboard = adapter.getItem(2);
                ((Dashboard) dashboard).playAnimOut();
            }
            if(tab.getPosition() == 3) {
                Fragment history = adapter.getItem(3);
                ((History) history).playAnimOut();
            }
            if(tab.getPosition() == 4) {
                Fragment outcome = adapter.getItem(4);
                ((Outcome) outcome).playAnimOut();
            }
        }
        @Override
        public void onTabReselected(TabLayout.Tab tab) {
        }
    });
}

private void setCustomTabs() {
    View view1 = getLayoutInflater().inflate(R.layout.tab_icon_custom,
null);
    view1.findViewById(R.id.icon).setBackgroundResource(R.drawable.ic_income_13);
    tabLayoutHome.getTabAt(0).setCustomView(view1);
}

```

```

        View view2 = getLayoutInflater().inflate(R.layout.tab_icon_custom,
null);
view2.findViewById(R.id.icon).setBackgroundResource(R.drawable.ic_userpanel_13);
        tabLayoutHome.getTabAt(1).setCustomView(view2);

        View view3 = getLayoutInflater().inflate(R.layout.tab_icon_custom,
null);
view3.findViewById(R.id.icon).setBackgroundResource(R.drawable.ic_dashboard_13);
        tabLayoutHome.getTabAt(2).setCustomView(view3);

        View view4 = getLayoutInflater().inflate(R.layout.tab_icon_custom,
null);
view4.findViewById(R.id.icon).setBackgroundResource(R.drawable.ic_history_13);
        tabLayoutHome.getTabAt(3).setCustomView(view4);

        View view5 = getLayoutInflater().inflate(R.layout.tab_icon_custom,
null);
view5.findViewById(R.id.icon).setBackgroundResource(R.drawable.ic_outcome_13);
        tabLayoutHome.getTabAt(4).setCustomView(view5);
    }
}

```

Income.java

```

package id.ac.umn.leleair.kelompok.smallchange;

import android.app.Dialog;
import android.graphics.Color;
import android.graphics.drawable.ColorDrawable;
import android.os.Bundle;

import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.constraintlayout.widget.ConstraintLayout;
import androidx.fragment.app.Fragment;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import android.text.TextUtils;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.Spinner;
import android.widget.TextView;
import android.widget.Toast;

```

```

import com.firebase.ui.database.FirebaseRecyclerAdapter;
import
com.google.android.material.floatingactionbutton.FloatingActionButton;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.ChildEventListener;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.Query;

import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.Calendar;
import java.util.Date;

import id.ac.umn.leleair.kelompok.smallchange.Model.Data;

public class Income extends Fragment {
    private Spinner filter;
    private ConstraintLayout pageTitle;
    private ImageView backgroundBox;
    private FloatingActionButton fabAddIncome;

    //Firebase
    private FirebaseAuth mAuth;
    private DatabaseReference mIncomeDatabase;

    //RecyclerView
    private RecyclerView recyclerView;

    //Initialize for Update Item
    private EditText editAmount;
    private EditText editType;
    private EditText editNote;
    private Button btnUpdate;
    private Button btnDelete;

    //Data item value
    private String type;
    private String note;
    private int amount;
    private String post_key;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        View view = inflater.inflate(R.layout.fragment_income, container,
false);

        //Firebase Initialization
        mAuth = FirebaseAuth.getInstance();

```

```

        FirebaseUser mUser = mAuth.getCurrentUser();
        String uid = mUser.getId();

        mIncomeDatabase =
FirebaseDatabase.getInstance().getReference().child("IncomeData").child(uid
);

        filter = view.findViewById(R.id.filterIncome);
        PageTitle = view.findViewById(R.id.PageTitleIncome);
        backgroundBox = view.findViewById(R.id.backgroundBoxIncome);
        fabAddIncome = view.findViewById(R.id.fabAddIncome);
        recyclerView = view.findViewById(R.id.recyclerViewIncome);

        LinearLayoutManager layoutManager = new
LinearLayoutManager(getActivity());

        layoutManager.setReverseLayout(true);
        layoutManager.setStackFromEnd(true);
        recyclerView.setHasFixedSize(true);
        recyclerView.setLayoutManager(layoutManager);

        initializeFilter();

        fabAddIncome.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                insertIncomeData();
            }
        });

        return view;
    }

    @Override
    public void onStart() {
        super.onStart();

        filter.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> parentView, View
selectedItemView, int position, long id) {
                Query incomeQuery;
                String dateTarget;

                SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-dd");
                Calendar cal = Calendar.getInstance();
                Date date = cal.getTime();
                String mDate = df.format(date);

                if (position == 0) {
                    FirebaseRecyclerAdapter<Data, MyViewHolder>adapter =
new FirebaseRecyclerAdapter<Data, MyViewHolder>
(
                        Data.class,
                        R.layout.income_item,
                        MyViewHolder.class,
                        mIncomeDatabase
                    ) {

```

```

        @Override
        protected void populateViewHolder(MyViewHolder
viewHolder, Data model, int position) {
            viewHolder.setType(model.getType());
            viewHolder.setNote(model.getNote());

            //parse date format
            String unFormattedDate = model.getDate();
            SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
            Date date = null;
            try {
                date = inFormat.parse(unFormattedDate);
            } catch (ParseException e) {
                e.printStackTrace();
            }
            SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
            String formattedDate = outFormat.format(date);

            //set formatted date
            viewHolder.setDate(formattedDate);
            viewHolder.setAmount(model.getAmount());

            viewHolder.mView.setOnClickListener(new
View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    post_key = getRef(position).getKey();

                    type = model.getType();
                    note = model.getNote();
                    amount = model.getAmount();

                    updateIncomeData();
                }
            });
        }
    };

    mIncomeDatabase.addChildEventListener(new
ChildEventListener() {
        @Override
        public void onChildAdded(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        }

        @Override
        public void onChildChanged(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
            adapter.notifyDataSetChanged();
        }

        @Override
        public void onChildRemoved(@NonNull DataSnapshot
snapshot) {
            adapter.notifyDataSetChanged();
        }

        @Override

```

```

        public void onChildMoved(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

        }

        @Override
        public void onCancelled(@NonNull DatabaseError
error) {

        }

    });

    //Set Recycler view adapter
    recyclerView.setAdapter(adapter);
}

else if (position == 1){
    incomeQuery =
mIncomeDatabase.orderByChild("date").startAt(mDate).endAt(mDate);
    FirebaseRecyclerAdapter<Data, MyViewHolder>adapter =
new FirebaseRecyclerAdapter<Data, MyViewHolder>
    (
        Data.class,
        R.layout.income_item,
        MyViewHolder.class,
        incomeQuery
    ) {
        @Override
        protected void populateViewHolder(MyViewHolder
viewHolder, Data model, int position) {
            viewHolder.setType(model.getType());
            viewHolder.setNote(model.getNote());

            //parse date format
            String unFormattedDate = model.getDate();
            SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
            Date date = null;
            try {
                date = inFormat.parse(unFormattedDate);
            } catch (ParseException e) {
                e.printStackTrace();
            }
            SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
            String formattedDate = outFormat.format(date);

            //set formatted date
            viewHolder.setDate(formattedDate);
            viewHolder.setAmount(model.getAmount());

            viewHolder.mView.setOnClickListener(new
View.OnClickListener() {

                @Override
                public void onClick(View v) {
                    post_key = getRef(position).getKey();

                    type = model.getType();
                    note = model.getNote();
                    amount = model.getAmount();

```



```

        updateIncomeData();
    }
    });
}
};

mIncomeDatabase.addChildEventListener(new
ChildEventListener() {
    @Override
    public void onChildAdded(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

    }

    @Override
    public void onChildChanged(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildRemoved(@NonNull DataSnapshot
snapshot) {
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildMoved(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

    }

    @Override
    public void onCancelled(@NonNull DatabaseError
error) {

    }

    });

    //Set Recycler view adapter
    recyclerView.setAdapter(adapter);
}
else if (position == 2){
    cal.add(Calendar.DATE,-7);
    date = cal.getTime();
    dateTarget = df.format(date);

    incomeQuery =
mIncomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);
    FirebaseRecyclerAdapter<Data, MyViewHolder>adapter =
new FirebaseRecyclerAdapter<Data, MyViewHolder>
(
        Data.class,
        R.layout.income_item,
        MyViewHolder.class,
        incomeQuery
    ) {
        @Override
        protected void populateViewHolder(MyViewHolder
viewHolder, Data model, int position) {
            viewHolder.setType(model.getType());

```

```

        viewHolder.setNote(model.getNote());

        //parse date format
        String unFormattedDate = model.getDate();
        SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
        Date date = null;
        try {
            date = inFormat.parse(unFormattedDate);
        } catch (ParseException e) {
            e.printStackTrace();
        }
        SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
        String formattedDate = outFormat.format(date);

        //set formatted date
        viewHolder.setDate(formattedDate);
        viewHolder.setAmount(model.getAmount());

        viewHolder.mView.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                post_key = getRef(position).getKey();

                type = model.getType();
                note = model.getNote();
                amount = model.getAmount();

                updateIncomeData();
            }
        });
    };

    mIncomeDatabase.addChildEventListener(new
ChildEventListener() {
        @Override
        public void onChildAdded(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        }

        @Override
        public void onChildChanged(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
            adapter.notifyDataSetChanged();
        }

        @Override
        public void onChildRemoved(@NonNull DataSnapshot
snapshot) {
            adapter.notifyDataSetChanged();
        }

        @Override
        public void onChildMoved(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        }
    }

```

```

        @Override
        public void onCancelled(@NonNull DatabaseError
error) {

        }

    });

    //Set Recycler view adapter
    recyclerView.setAdapter(adapter);

}
else if (position == 3){
    cal.add(Calendar.DATE,-31);
    date = cal.getTime();
    dateTarget = df.format(date);

    incomeQuery =
mIncomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);
    FirebaseRecyclerAdapter<Data, MyViewHolder>adapter =
new FirebaseRecyclerAdapter<Data, MyViewHolder>
    (
        Data.class,
        R.layout.income_item,
        MyViewHolder.class,
        incomeQuery
    ) {
        @Override
        protected void populateViewHolder(MyViewHolder
viewHolder, Data model, int position) {
            viewHolder.setType(model.getType());
            viewHolder.setNote(model.getNote());

            //parse date format
            String unFormattedDate = model.getDate();
            SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
            Date date = null;
            try {
                date = inFormat.parse(unFormattedDate);
            } catch (ParseException e) {
                e.printStackTrace();
            }
            SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
            String formattedDate = outFormat.format(date);

            //set formatted date
            viewHolder.setDate(formattedDate);
            viewHolder.setAmount(model.getAmount());

            viewHolder.mView.setOnClickListener(new
View.OnClickListener() {

                @Override
                public void onClick(View v) {
                    post_key = getRef(position).getKey();

                    type = model.getType();
                    note = model.getNote();
                    amount = model.getAmount();

```

```

        updateIncomeData();
    }
    });
}
};

mIncomeDatabase.addChildEventListener(new
ChildEventListener() {
    @Override
    public void onChildAdded(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

    }

    @Override
    public void onChildChanged(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildRemoved(@NonNull DataSnapshot
snapshot) {
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildMoved(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

    }

    @Override
    public void onCancelled(@NonNull DatabaseError
error) {

    }

    });

    //Set Recycler view adapter
    recyclerView.setAdapter(adapter);

}

@Override
public void onNothingSelected(AdapterView<?> parentView) {
    // your code here
}

});
}

public void insertIncomeData() {
    //New Transaction Form
    Dialog mdialog = new Dialog(getActivity());
    LayoutInflater inflater = LayoutInflater.from(getActivity());
    View myviewm = inflater.inflate(R.layout.insert_data_form, null);
    mdialog.setContentview(myviewm);
    mdialog.getWindow().setBackgroundDrawable(new

```

```

ColorDrawable(Color.TRANSPARENT));

        EditText editAmount =
myviewm.findViewById(R.id.editTransactionAmount);
        EditText editType = myviewm.findViewById(R.id.editTransactionName);
        EditText editNote = myviewm.findViewById(R.id.editTransactionNote);

        Button btnSave = myviewm.findViewById(R.id.btnSaveTransaction);

        btnSave.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String type = editType.getText().toString().trim();
                String amount = editAmount.getText().toString().trim();
                String note = editNote.getText().toString().trim();

                // Validate input from new transaction form
                if (TextUtils.isEmpty(amount)) {
                    editAmount.setError("Required Field");
                    return;
                }
                if (TextUtils.isEmpty(type)) {
                    editType.setError("Required Field");
                    return;
                }
                else {
                    if (!validateTitle(type)){
                        editType.setError("Max 16 characters");
                        return;
                    }
                }
                if (TextUtils.isEmpty(note)) {
                    editNote.setError("Required Field");
                    return;
                }
                else {
                    if (!validateNote(note)){
                        editNote.setError("Max 30 characters");
                        return;
                    }
                }
                int ouramountint = Integer.parseInt((amount));

                // Save transaction to database
                String id = mIncomeDatabase.push().getKey();
                if(id != null){
                    SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-
dd");

                    Date date = Calendar.getInstance().getTime();
                    String mDate = df.format(date);
                    Data data = new Data(ouramountint, type, note, id,
mDate);

                    mIncomeDatabase.child(id).setValue(data);
                    Toast.makeText(getActivity(), "Transaction added
successfully", Toast.LENGTH_SHORT).show();

                    mdialog.dismiss();
                }
            }
        });
        mdialog.show();
    }
}

```

```

    }

    public void playAnimIn() {
        backgroundBox.animate().translationY(0).alpha(1).setDuration(600);
        PageTitle.animate().translationY(0).alpha(1).setDuration(400);
        filter.animate().alpha(1).setDuration(400).setStartDelay(600);
        fabAddIncome.animate().translationY(0).alpha(1).setDuration(400);

        recyclerView.animate().translationY(0).alpha(1).setDuration(400).setStartDe
        lay(600);
    }

    public void playAnimOut() {
        backgroundBox.animate().translationY(300).alpha(0).setDuration(200);
        PageTitle.animate().translationY(-130).alpha(0).setDuration(200);
        filter.animate().alpha(0).setDuration(200);
        fabAddIncome.animate().translationY(100).alpha(0).setDuration(200);
        recyclerView.animate().translationY(100).alpha(0).setDuration(200);
    }

    private void initializeFilter() {
        String[] value = {"Show All", "Today", "7 days ago", "31 days
        ago"};
        ArrayList<String> arrayList = new
        ArrayList<>(Arrays.asList(value));
        ArrayAdapter<String> arrayAdapter = new
        ArrayAdapter<String>(getActivity(), R.layout.customview_spinner, arrayList) {

            @Override
            public View getDropDownView(int position, View
            convertView, ViewGroup parent) {
                // TODO Auto-generated method stub

                View view = super.getView(position, convertView, parent);

                TextView text = (TextView) view.findViewById(R.id.tvFilter);
                text.setTextColor(getResources().getColor(R.color.biru));

                return view;
            }

            @Override
            public View getView(int position, View convertView, ViewGroup
            parent) {
                // TODO Auto-generated method stub

                View view = super.getView(position, convertView, parent);

                TextView text = (TextView) view.findViewById(R.id.tvFilter);
                text.setTextColor(getResources().getColor(R.color.white));

                return view;
            }
        };
        filter.setAdapter(arrayAdapter);
    }

```

```

private void updateIncomeData() {
    //Update Transaction Form
    Dialog mdialog = new Dialog(getActivity());
    LayoutInflater inflater = LayoutInflater.from(getActivity());
    View myviewm = inflater.inflate(R.layout.update_data_form,null);
    mdialog.setContentview(myviewm);
    mdialog.getWindow().setBackgroundDrawable(new
ColorDrawable(Color.TRANSPARENT));

    editAmount = myviewm.findViewById(R.id.editTransactionAmount);
    editType = myviewm.findViewById(R.id.editTransactionName);
    editNote = myviewm.findViewById(R.id.editTransactionNote);

    //Set Income data to edit text
    editType.setText(type);
    editType.setSelection(type.length());

    editNote.setText(note);
    editNote.setSelection(note.length());

    editAmount.setText(String.valueOf(amount));
    editAmount.setSelection(String.valueOf(amount).length());

    //Define button
    btnUpdate = myviewm.findViewById(R.id.btnUpdateTransaction);
    btnDelete = myviewm.findViewById(R.id.btnDeleteTransaction);

    btnUpdate.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            type = editType.getText().toString().trim();
            note = editNote.getText().toString().trim();

            String amountValue = String.valueOf(amount);
            amountValue = editAmount.getText().toString().trim();

            SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-dd");
            Date date = Calendar.getInstance().getTime();
            String mDate = df.format(date);

            // Validate input from update transaction form
            if (TextUtils.isEmpty(amountValue)) {
                editAmount.setError("Required Field");
                return;
            }
            if (TextUtils.isEmpty(type)) {
                editType.setError("Required Field");
                return;
            }
            else {
                if (!validateTitle(type)){
                    editType.setError("Max 16 characters");
                    return;
                }
            }
            if (TextUtils.isEmpty(note)) {
                editNote.setError("Required Field");
                return;
            }
            else {

```

```

        if (!validateNote(note)) {
            editNote.setError("Max 30 characters");
            return;
        }
    }
    int myAmount = Integer.parseInt(amountValue);

    // Update transaction to database
    if (post_key != null) {
        Data data = new Data(myAmount, type, note, post_key,
mDate);

        mIncomeDatabase.child(post_key).setValue(data);
        Toast.makeText(getActivity(), "Transaction has been
updated", Toast.LENGTH_SHORT).show();

        mdialog.dismiss();
    }
}
});

btnDelete.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        mIncomeDatabase.child(post_key).removeValue();
        mdialog.dismiss();
    }
});
mdialog.show();
}

public boolean validateTitle(String title) {
    return title.length() <= 16;
}

public boolean validateNote(String note) {
    return note.length() <= 16;
}
}

```

Login.java

```

package id.ac.umh.leleair.kelompok.smallchange;

import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.FragmentManager;
import androidx.viewpager2.widget.ViewPager2;

import android.content.Context;
import android.content.Intent;
import android.net.ConnectivityManager;
import android.os.Bundle;
import android.provider.Settings;
import android.widget.Toast;

import com.google.android.material.tabs.TabLayout;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;

import java.lang.reflect.Method;

```



```

public class Login extends AppCompatActivity {
    TabLayout tabLayoutLogin;
    ViewPager2 pager2Login;
    LoginFragmentAdapter loginAdapter;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);

        tabLayoutLogin = findViewById(R.id.loginTabLayout);
        pager2Login = findViewById(R.id.viewpagerLogin);

        checkUserSession();

        FragmentManager fm = getSupportFragmentManager();
        loginAdapter = new LoginFragmentAdapter(fm, getLifecycle());
        pager2Login.setAdapter(loginAdapter);

        tabLayoutLogin.addTab(tabLayoutLogin.newTab().setText("Sign In"));
        tabLayoutLogin.addTab(tabLayoutLogin.newTab().setText("Sign Up"));

        tabLayoutLogin.addOnTabSelectedListener(new
TabLayout.OnTabSelectedListener() {
            @Override
            public void onTabSelected(TabLayout.Tab tab) {
                pager2Login.setCurrentItem(tab.getPosition());
            }

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

            }

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

            }
        });

        pager2Login.registerOnPageChangeCallback(new
ViewPager2.OnPageChangeCallback() {
            @Override
            public void onPageSelected(int position) {
tabLayoutLogin.selectTab(tabLayoutLogin.getTabAt(position));
            }
        });
    }

    private void checkUserSession(){
        //Initialize Firebase Auth & User
        FirebaseAuth firebaseAuth = FirebaseAuth.getInstance();
        FirebaseUser firebaseUser = firebaseAuth.getCurrentUser();

        //check if user already signed in
        if(firebaseUser != null){
            Intent intent = new Intent(this, HomeActivity.class);

intent.setFlags(Intent.FLAG_ACTIVITY_CLEAR_TASK|Intent.FLAG_ACTIVITY_NEW_TA
SK);

            startActivity(intent);
        }
    }
}

```

```

    }
}
}

```

LoginFragmentAdapter.java

```

package id.ac.umn.leleair.kelompok.smallchange;

import androidx.annotation.NonNull;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentManager;
import androidx.lifecycle.Lifecycle;
import androidx.viewpager2.adapter.FragmentStateAdapter;

public class LoginFragmentAdapter extends FragmentStateAdapter {
    public LoginFragmentAdapter(@NonNull FragmentManager fragmentManager,
    @NonNull Lifecycle lifecycle) {
        super(fragmentManager, lifecycle);
    }

    @NonNull
    @Override
    public Fragment createFragment(int position) {
        if (position == 1){
            return new SignUp();
        }
        return new SignIn();
    }

    @Override
    public int getItemCount() {
        return 2;
    }
}

```

MainActivity.java

```

package id.ac.umn.leleair.kelompok.smallchange;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

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

```

MyViewHolder.java

```

package id.ac.umn.leleair.kelompok.smallchange;

import android.view.View;

```

```

import android.widget.TextView;

import androidx.recyclerview.widget.RecyclerView;

public class MyViewHolder extends RecyclerView.ViewHolder {
    View mView;

    public MyViewHolder(View itemView) {
        super(itemView);
        mView = itemView;
    }

    public void setType(String type) {
        TextView mType = mView.findViewById(R.id.tvType);
        mType.setText(type);
    }

    public void setNote(String note) {
        TextView mNote = mView.findViewById(R.id.tvNote);
        mNote.setText(note);
    }

    public void setDate(String date) {
        TextView mDate = mView.findViewById(R.id.tvDate);
        mDate.setText(date);
    }

    public void setAmount(int amount) {
        TextView mAmount = mView.findViewById(R.id.tvAmount);
        String stamount = String.valueOf(amount);
        mAmount.setText(stamount);
    }
}

```

Outcome.java

```

package id.ac.umh.leleair.kelompok.smallchange;

import android.app.Dialog;
import android.graphics.Color;
import android.graphics.drawable.ColorDrawable;
import android.os.Bundle;

import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.constraintlayout.widget.ConstraintLayout;
import androidx.fragment.app.Fragment;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import android.text.TextUtils;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageView;
import android.widget.Spinner;

```

```

import android.widget.TextView;
import android.widget.Toast;

import com.firebase.ui.database.FirebaseRecyclerAdapter;
import
com.google.android.material.floatingactionbutton.FloatingActionButton;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.ChildEventListener;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.Query;

import java.text.DateFormat;
import java.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.Calendar;
import java.util.Date;

import id.ac.umn.leleair.kelompok.smallchange.Model.Data;

public class Outcome extends Fragment {
    private Spinner filter;
    private ConstraintLayout pageTitle;
    private ImageView backgroundBox;
    private FloatingActionButton fabAddOutcome;

    //Firebase
    private FirebaseAuth mAuth;
    private DatabaseReference mOutcomeDatabase;

    //RecyclerView
    private RecyclerView recyclerView;

    //Initialize for Update Item
    private EditText editAmount;
    private EditText editType;
    private EditText editNote;
    private Button btnUpdate;
    private Button btnDelete;

    //Data item value
    private String type;
    private String note;
    private int amount;
    private String post_key;

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        View view = inflater.inflate(R.layout.fragment_outcome, container,

```

```

false);

//Firebase Initialization
mAuth = FirebaseAuth.getInstance();
FirebaseUser mUser = mAuth.getCurrentUser();
String uid = mUser.getId();

mOutcomeDatabase =
FirebaseDatabase.getInstance().getReference().child("OutcomeData").child(ui
d);

filter = view.findViewById(R.id.filterOutcome);
PageTitle = view.findViewById(R.id.PageTitleOutcome);
backgroundBox = view.findViewById(R.id.backgroundBoxOutcome);
fabAddOutcome = view.findViewById(R.id.fabAddOutcome);
recyclerView = view.findViewById(R.id.recyclerViewOutcome);

LinearLayoutManager layoutManager = new
LinearLayoutManager(getActivity());

layoutManager.setReverseLayout(true);
layoutManager.setStackFromEnd(true);
recyclerView.setHasFixedSize(true);
recyclerView.setLayoutManager(layoutManager);

initializeFilter();

fabAddOutcome.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        insertOutcomeData();
    }
});

return view;
}

@Override
public void onStart(){
    super.onStart();

    filter.setOnItemClickListener(new
AdapterView.OnItemClickListener() {
        @Override
        public void onItemClick(AdapterView<?> parentView, View
selectedItemView, int position, long id) {
            Query incomeQuery;
            String dateTarget;

            SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-dd");
            Calendar cal = Calendar.getInstance();
            Date date = cal.getTime();
            String mDate = df.format(date);

            if (position == 0) {
                FirebaseRecyclerAdapter<Data, MyViewHolder>adapter =
new FirebaseRecyclerAdapter<Data, MyViewHolder>
(
                    Data.class,

```

```

        R.layout.income_item,
        MyViewHolder.class,
        mOutcomeDatabase
    ) {
        @Override
        protected void populateViewHolder(MyViewHolder
viewHolder, Data model, int position) {
            viewHolder.setType(model.getType());
            viewHolder.setNote(model.getNote());

            //parse date format
            String unFormattedDate = model.getDate();
            SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
            Date date = null;
            try {
                date = inFormat.parse(unFormattedDate);
            } catch (ParseException e) {
                e.printStackTrace();
            }
            SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
            String formattedDate = outFormat.format(date);

            //set formatted date
            viewHolder.setDate(formattedDate);
            viewHolder.setAmount(model.getAmount());

            viewHolder.mView.setOnClickListener(new
View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    post_key = getRef(position).getKey();

                    type = model.getType();
                    note = model.getNote();
                    amount = model.getAmount();

                    updateOutcomeData();
                }
            });
        }
    };

    mOutcomeDatabase.addChildEventListener(new
ChildEventListener() {
        @Override
        public void onChildAdded(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        }

        @Override
        public void onChildChanged(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
            adapter.notifyDataSetChanged();
        }

        @Override
        public void onChildRemoved(@NonNull DataSnapshot
snapshot) {

```

```

        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildMoved(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

    }

    @Override
    public void onCancelled(@NonNull DatabaseError
error) {

    }

    });

    //Set Recycler view adapter
    recyclerView.setAdapter(adapter);
}

else if (position == 1){
    incomeQuery =
mOutcomeDatabase.orderByChild("date").startAt(mDate).endAt(mDate);
    FirebaseRecyclerAdapter<Data, MyViewHolder>adapter =
new FirebaseRecyclerAdapter<Data, MyViewHolder>
(
        Data.class,
        R.layout.income_item,
        MyViewHolder.class,
        incomeQuery
    ) {
        @Override
        protected void populateViewHolder(MyViewHolder
viewHolder, Data model, int position) {
            viewHolder.setType(model.getType());
            viewHolder.setNote(model.getNote());

            //parse date format
            String unFormattedDate = model.getDate();
            SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
            Date date = null;
            try {
                date = inFormat.parse(unFormattedDate);
            } catch (ParseException e) {
                e.printStackTrace();
            }
            SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
            String formattedDate = outFormat.format(date);

            //set formatted date
            viewHolder.setDate(formattedDate);
            viewHolder.setAmount(model.getAmount());

            viewHolder.mView.setOnClickListener(new
View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    post_key = getRef(position).getKey();

```

```

        type = model.getType();
        note = model.getNote();
        amount = model.getAmount();

        updateOutcomeData();
    }
    });
}
};

mOutcomeDatabase.addChildEventListener(new
ChildEventListener() {
    @Override
    public void onChildAdded(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

    }

    @Override
    public void onChildChanged(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildRemoved(@NonNull DataSnapshot
snapshot) {
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildMoved(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

    }

    @Override
    public void onCancelled(@NonNull DatabaseError
error) {

    }

    });

    //Set Recycler view adapter
    recyclerView.setAdapter(adapter);
}
else if (position == 2){
    cal.add(Calendar.DATE,-7);
    date = cal.getTime();
    dateTarget = df.format(date);

    incomeQuery =
mOutcomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);
    FirebaseRecyclerAdapter<Data, MyViewHolder>adapter =
new FirebaseRecyclerAdapter<Data, MyViewHolder>
    (
        Data.class,
        R.layout.income_item,
        MyViewHolder.class,
        incomeQuery
    ) {

```



```

        @Override
        protected void populateViewHolder(MyViewHolder
viewHolder, Data model, int position) {
            viewHolder.setType(model.getType());
            viewHolder.setNote(model.getNote());

            //parse date format
            String unFormattedDate = model.getDate();
            SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
            Date date = null;
            try {
                date = inFormat.parse(unFormattedDate);
            } catch (ParseException e) {
                e.printStackTrace();
            }
            SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
            String formattedDate = outFormat.format(date);

            //set formatted date
            viewHolder.setDate(formattedDate);
            viewHolder.setAmount(model.getAmount());

            viewHolder.mView.setOnClickListener(new
View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    post_key = getRef(position).getKey();

                    type = model.getType();
                    note = model.getNote();
                    amount = model.getAmount();

                    updateOutcomeData();
                }
            });
        }
    };

    mOutcomeDatabase.addChildEventListener(new
ChildEventListener() {
        @Override
        public void onChildAdded(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
            }

        @Override
        public void onChildChanged(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
            adapter.notifyDataSetChanged();
        }

        @Override
        public void onChildRemoved(@NonNull DataSnapshot
snapshot) {
            adapter.notifyDataSetChanged();
        }

        @Override

```

```

        public void onChildMoved(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {

        }

        @Override
        public void onCancelled(@NonNull DatabaseError
error) {

        }

    });

    //Set Recycler view adapter
    recyclerView.setAdapter(adapter);

}
else if (position == 3){
    cal.add(Calendar.DATE,-31);
    date = cal.getTime();
    dateTarget = df.format(date);

    incomeQuery =
mOutcomeDatabase.orderByChild("date").startAt(dateTarget).endAt(mDate);
    FirebaseRecyclerAdapter<Data, MyViewHolder>adapter =
new FirebaseRecyclerAdapter<Data, MyViewHolder>
    (
        Data.class,
        R.layout.income_item,
        MyViewHolder.class,
        incomeQuery
    ) {
        @Override
        protected void populateViewHolder(MyViewHolder
viewHolder, Data model, int position) {
            viewHolder.setType(model.getType());
            viewHolder.setNote(model.getNote());

            //parse date format
            String unFormattedDate = model.getDate();
            SimpleDateFormat inFormat = new
SimpleDateFormat("yyyy-MM-dd");
            Date date = null;
            try {
                date = inFormat.parse(unFormattedDate);
            } catch (ParseException e) {
                e.printStackTrace();
            }
            SimpleDateFormat outFormat = new
SimpleDateFormat("MMM dd, yyyy");
            String formattedDate = outFormat.format(date);

            //set formatted date
            viewHolder.setDate(formattedDate);
            viewHolder.setAmount(model.getAmount());

            viewHolder.mView.setOnClickListener(new
View.OnClickListener() {
                @Override
                public void onClick(View v) {
                    post_key = getRef(position).getKey();

```

```

        type = model.getType();
        note = model.getNote();
        amount = model.getAmount();

        updateOutcomeData();
    }
    });
}
};

mOutcomeDatabase.addChildEventListener(new
ChildEventListener() {
    @Override
    public void onChildAdded(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        }

    @Override
    public void onChildChanged(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildRemoved(@NonNull DataSnapshot
snapshot) {
        adapter.notifyDataSetChanged();
    }

    @Override
    public void onChildMoved(@NonNull DataSnapshot
snapshot, @Nullable String previousChildName) {
        }

    @Override
    public void onCancelled(@NonNull DatabaseError
error) {
        }
    });

    //Set Recycler view adapter
    recyclerView.setAdapter(adapter);
}

@Override
public void onNothingSelected(AdapterView<?> parentView) {
    // your code here
}

});
}

public void insertOutcomeData(){
    //New Transaction Form
    Dialog mdialog = new Dialog(getActivity());

```

```

        LayoutInflater inflater = LayoutInflater.from(getActivity());
        View myviewm = inflater.inflate(R.layout.insert_data_form, null);
        mdialog.setContentView(myviewm);
        mdialog.getWindow().setBackgroundDrawable(new
ColorDrawable(Color.TRANSPARENT));

        EditText editAmount =
myviewm.findViewById(R.id.editTransactionAmount);
        EditText editType = myviewm.findViewById(R.id.editTransactionName);
        EditText editNote = myviewm.findViewById(R.id.editTransactionNote);

        Button btnSave = myviewm.findViewById(R.id.btnSaveTransaction);

        btnSave.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String type = editType.getText().toString().trim();
                String amount = editAmount.getText().toString().trim();
                String note = editNote.getText().toString().trim();

                // Validate input from new transaction form
                if (TextUtils.isEmpty(amount)) {
                    editAmount.setError("Required Field");
                    return;
                }
                if (TextUtils.isEmpty(type)) {
                    editType.setError("Required Field");
                    return;
                }
                else {
                    if (!validateTitle(type)){
                        editType.setError("Max 16 characters");
                        return;
                    }
                }
                if (TextUtils.isEmpty(note)) {
                    editNote.setError("Required Field");
                    return;
                }
                else {
                    if (!validateNote(note)){
                        editNote.setError("Max 30 characters");
                        return;
                    }
                }
                int ouramountint = Integer.parseInt((amount));

                // Save transaction to database
                String id = mOutcomeDatabase.push().getKey();
                if(id != null){
                    SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-
dd");

                    Date date = Calendar.getInstance().getTime();
                    String mDate = df.format(date);
                    Data data = new Data(ouramountint, type, note, id,
mDate);

                    mOutcomeDatabase.child(id).setValue(data);
                    Toast.makeText(getActivity(), "Transaction added
successfully", Toast.LENGTH_SHORT).show();

                    mdialog.dismiss();

```

```

    }
    }
    });
    mdialog.show();
}

public void playAnimIn() {
    backgroundBox.animate().translationY(0).alpha(1).setDuration(600);
    PageTitle.animate().translationY(0).alpha(1).setDuration(400);
    filter.animate().alpha(1).setDuration(400).setStartDelay(600);
    fabAddOutcome.animate().translationY(0).alpha(1).setDuration(400);

    recyclerView.animate().translationY(0).alpha(1).setDuration(400).setStartDelay(600);
}

public void playAnimOut() {
    backgroundBox.animate().translationY(300).alpha(0).setDuration(200);
    PageTitle.animate().translationY(-130).alpha(0).setDuration(200);
    filter.animate().alpha(0).setDuration(200);

    fabAddOutcome.animate().translationY(100).alpha(0).setDuration(200);
    recyclerView.animate().translationY(100).alpha(0).setDuration(200);
}

private void initializeFilter() {
    String[] value = {"Show All", "Today", "7 days ago", "31 days ago"};
    ArrayList<String> arrayList = new
ArrayList<>(Arrays.asList(value));
    ArrayAdapter<String> arrayAdapter = new
ArrayAdapter<String>(getActivity(), R.layout.customview_spinner, arrayList) {

        @Override
        public View getDropDownView(int position, View
convertView, ViewGroup parent) {
            // TODO Auto-generated method stub

            View view = super.getView(position, convertView, parent);

            TextView text = (TextView) view.findViewById(R.id.tvFilter);
            text.setTextColor(getResources().getColor(R.color.biru));

            return view;
        }

        @Override
        public View getView(int position, View convertView, ViewGroup
parent) {
            // TODO Auto-generated method stub

            View view = super.getView(position, convertView, parent);

            TextView text = (TextView) view.findViewById(R.id.tvFilter);
            text.setTextColor(getResources().getColor(R.color.white));

            return view;
        }
    }
}

```

```

    };
    filter.setAdapter(arrayAdapter);
}

private void updateOutcomeData() {
    //Update Transaction Form
    Dialog mdialog = new Dialog(getActivity());
    LayoutInflater inflater = LayoutInflater.from(getActivity());
    View myviewm = inflater.inflate(R.layout.update_data_form, null);
    mdialog.setContentView(myviewm);
    mdialog.getWindow().setBackgroundDrawable(new
ColorDrawable(Color.TRANSPARENT));

    editAmount = myviewm.findViewById(R.id.editTransactionAmount);
    editType = myviewm.findViewById(R.id.editTransactionName);
    editNote = myviewm.findViewById(R.id.editTransactionNote);

    //Set Income data to edit text
    editType.setText(type);
    editType.setSelection(type.length());

    editNote.setText(note);
    editNote.setSelection(note.length());

    editAmount.setText(String.valueOf(amount));
    editAmount.setSelection(String.valueOf(amount).length());

    //Define button
    btnUpdate = myviewm.findViewById(R.id.btnUpdateTransaction);
    btnDelete = myviewm.findViewById(R.id.btnDeleteTransaction);

    btnUpdate.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            type = editType.getText().toString().trim();
            note = editNote.getText().toString().trim();

            String amountValue = String.valueOf(amount);
            amountValue = editAmount.getText().toString().trim();

            SimpleDateFormat df = new SimpleDateFormat("yyyy-MM-dd");
            Date date = Calendar.getInstance().getTime();
            String mDate = df.format(date);

            // Validate input from update transaction form
            if (TextUtils.isEmpty(amountValue)) {
                editAmount.setError("Required Field");
                return;
            }
            if (TextUtils.isEmpty(type)) {
                editType.setError("Required Field");
                return;
            }
            else {
                if (!validateTitle(type)) {
                    editType.setError("Max 16 characters");
                    return;
                }
            }
            if (TextUtils.isEmpty(note)) {

```

```

        editNote.setError("Required Field");
        return;
    }
    else {
        if (!validateNote(note)) {
            editNote.setError("Max 30 characters");
            return;
        }
    }
    int myAmount = Integer.parseInt(amountValue);

    // Update transaction to database
    if(post_key != null){
        Data data = new Data(myAmount, type, note, post_key,
mDate);

        mOutcomeDatabase.child(post_key).setValue(data);
        Toast.makeText(getActivity(), "Transaction has been
updated", Toast.LENGTH_SHORT).show();

        mdialog.dismiss();
    }
}
});

btnDelete.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        mOutcomeDatabase.child(post_key).removeValue();
        mdialog.dismiss();
    }
});
mdialog.show();
}

public boolean validateTitle(String title) {return title.length() <=
16;}

public boolean validateNote(String note) {return note.length() <= 16;}
}

```

ProgressBarAnimation.java

```

package id.ac.umh.leleair.kelompok.smallchange;

import android.view.animation.Animation;
import android.view.animation.Transformation;
import android.widget.ProgressBar;
import android.widget.TextView;

public class ProgressBarAnimation extends Animation {
    private ProgressBar progressBar;
    private TextView textView;
    private float from;
    private float to;

    public ProgressBarAnimation(ProgressBar progressBar, TextView textView,
float from, float to) {
        super();
        this.progressBar = progressBar;
        this.textView = textView;
    }
}

```

```

        this.from = from;
        this.to = to;
    }

    @Override
    protected void applyTransformation(float interpolatedTime,
Transformation t) {
        super.applyTransformation(interpolatedTime, t);
        float value = from + (to - from) * interpolatedTime;
        progressBar.setProgress((int) value);
        textView.setText((int) value + "%");
    }
}

```

SignIn.java

```

package id.ac.umn.leleair.kelompok.smallchange;

import android.app.Dialog;
import android.app.ProgressDialog;
import android.content.Intent;
import android.graphics.Color;
import android.graphics.drawable.ColorDrawable;
import android.os.Bundle;

import androidx.annotation.NonNull;
import androidx.fragment.app.Fragment;

import android.text.TextUtils;
import android.util.Log;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.OnFailureListener;
import com.google.android.gms.tasks.Task;
import com.google.android.material.textfield.TextInputLayout;
import com.google.firebase.auth.AuthCredential;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.EmailAuthProvider;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;

import java.util.Objects;
import java.util.regex.Matcher;
import java.util.regex.Pattern;

public class SignIn extends Fragment {
    private TextInputLayout mEmailSignInWrapper, mPassSignInWrapper;
    private Button btnLogin;
    private TextView mForgetPassword;

    private static final String EMAIL_PATTERN = "^[a-zA-Z0-9_~!$&'()*+,-;=.:\"'(),;<>@\\[\\]\\|\\\\\\\\\\\\\\\\]+@[a-zA-Z0-9-]+(\\\\\\. [a-zA-Z0-9-]+)*$";

```



```

private Pattern EmailPattern = Pattern.compile(EMAIL_PATTERN);
private static final String PASSWORD_PATTERN = "^(?=.*[0-9])(?=.*[a-z])(?=.*[A-Z])(?=.*[@#$%^&+=])(?=\S+$).{4,}$";
private Pattern PassPattern = Pattern.compile(PASSWORD_PATTERN);
private Matcher matcherEmail, matcherPass;

private ProgressDialog mDialog;

//Firebase Auth
private FirebaseAuth mAuth;

@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
}

@Override
public View onCreateView(LayoutInflater inflater, ViewGroup container,
    Bundle savedInstanceState) {
    //Set Auth instance
    mAuth = FirebaseAuth.getInstance();
    mDialog = new ProgressDialog(getActivity());

    //Inflate view
    View view = inflater.inflate(R.layout.fragment_sign_in, container,
false);

    mEmailSignInWrapper = (TextInputLayout)
view.findViewById(R.id.editEmailSignInWrapper);
    mPassSignInWrapper = (TextInputLayout)
view.findViewById(R.id.editPasswordSignInWrapper);
    btnLogin = (Button) view.findViewById(R.id.btnSignIn);
    mForgetPassword = (TextView)
view.findViewById(R.id.ForgetPassword);

    mEmailSignInWrapper.setHint("E-mail");
    mPassSignInWrapper.setHint("Password");

    btnLogin.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            String emailSignIn =
mEmailSignInWrapper.getText().toString().trim();
            String passSignIn =
mPassSignInWrapper.getText().toString().trim();

            if(!TextUtils.isEmpty(emailSignIn) &&
!TextUtils.isEmpty(passSignIn)){
                if (!validateEmail(emailSignIn)) {
                    mEmailSignInWrapper.setError("Not a valid email
address!");
                }
                //The password must be at least 8 characters long and
include a number, lowercase letter, uppercase letter and special character
                else if (!validatePassword(passSignIn)) {
                    mPassSignInWrapper.setError("Not a valid
password!\n" +
                        "Must be 8 characters (number, lowercase,
uppercase and special character)");
                }
            }
        }
    });
}

```

```

        }
        else {
            mEmailSignInWrapper.setErrorEnabled(false);
            mPassSignInWrapper.setErrorEnabled(false);

            mDialog.setMessage("Processing...");
            mDialog.show();

mAuth.signInWithEmailAndPassword(emailSignIn,passSignIn).addOnCompleteListener(new OnCompleteListener<AuthResult>() {
    @Override
    public void onComplete(@NonNull
Task<AuthResult> task) {
        if(task.isSuccessful()){
            mDialog.dismiss();
            moveToHome();

Toast.makeText(getActivity().getApplicationContext(), "Sign In Succesfull",
Toast.LENGTH_SHORT).show();

        }
        else {
            mDialog.dismiss();

Toast.makeText(getActivity().getApplicationContext(), "Incorect E-mail or
Password", Toast.LENGTH_SHORT).show();

        }
    }
});
    }
    else {
        if(TextUtils.isEmpty(emailSignIn)){
            mEmailSignInWrapper.setError("Email Required...");
            return;
        }
        if(TextUtils.isEmpty(passSignIn)){
            mPassSignInWrapper.setError("Password
Required...");
            return;
        }
    }
});

mForgotPassword.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        forgotPassword();
    }
});

return view;
}

public void forgotPassword() {
    //Change Password Form
    Dialog forgotPassDialog = new Dialog(getActivity());
    LayoutInflater inflater = LayoutInflater.from(getActivity());
    View myviewm = inflater.inflate(R.layout.forgot_password, null);
    forgotPassDialog.setContentView(myviewm);

```

```

        forgotPassDialog.getWindow().setBackgroundDrawable(new
ColorDrawable(Color.TRANSPARENT));
        int width =
(int) (getResources().getDisplayMetrics().widthPixels*0.90);
        int height =
(int) (getResources().getDisplayMetrics().heightPixels*0.41);

        forgotPassDialog.getWindow().setLayout(width, height);

        EditText editConfirmEmail =
myviewm.findViewById(R.id.tvEmailConfirm);

        Button btnSend = myviewm.findViewById(R.id.btnSend);

        btnSend.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String ConfirmEmail =
editConfirmEmail.getText().toString().trim();

                if(TextUtils.isEmpty(ConfirmEmail)){
                    editConfirmEmail.setError("Required Field");
                    return;
                }
                else if (!validateEmail(ConfirmEmail)){
                    editConfirmEmail.setError("Not a valid email
address!");
                }

                FirebaseAuth.getInstance().sendPasswordResetEmail(ConfirmEmail)
                    .addOnCompleteListener(new
OnCompleteListener<Void>() {
                        @Override
                        public void onComplete(@NonNull Task<Void>
task) {

                            if (task.isSuccessful()) {

                                Toast.makeText(getActivity().getApplicationContext(), "Email Sent",
                                Toast.LENGTH_SHORT).show();

                                forgotPassDialog.dismiss();
                                Log.d("Status", "Email sent.");

                            }
                        })
                    }).addOnFailureListener(new OnFailureListener() {
                        @Override public void onFailure(@NonNull
Exception e) {

                            Toast.makeText(getActivity().getApplicationContext(), "Email not
registered", Toast.LENGTH_SHORT).show();
                            forgotPassDialog.dismiss();
                            Log.d("Status", "Failed to sent.");

                        }
                    });
            }
        });

        forgotPassDialog.show();
    }

    public boolean validateEmail(String email) {

```

```

        matcherEmail = EmailPattern.matcher(email);
        return matcherEmail.matches();
    }

    public boolean validatePassword(String password) {
        matcherPass = PassPattern.matcher(password);
        return matcherPass.matches();
    }

    private void moveToHome() {
        Intent intent = new Intent(getActivity(), HomeActivity.class);

intent.setFlags(Intent.FLAG_ACTIVITY_CLEAR_TASK|Intent.FLAG_ACTIVITY_NEW_TA
SK);

        startActivity(intent);
    }
}

```

SignUp.java

```

package id.ac.umn.leleair.kelompok.smallchange;

import android.app.ProgressDialog;
import android.content.Intent;
import android.os.Bundle;

import androidx.annotation.NonNull;
import androidx.fragment.app.Fragment;

import android.text.TextUtils;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.android.material.textfield.TextInputLayout;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;

import java.util.regex.Matcher;
import java.util.regex.Pattern;

import id.ac.umn.leleair.kelompok.smallchange.Model.User;

public class SignUp extends Fragment {
    private TextInputLayout mEmailSignUpWrapper, mUsernameSignUpWrapper,
mPassSignUpWrapper;
    private Button btnReg;

    private static final String EMAIL_PATTERN = "[a-zA-Z0-9_~!$&'()*+,-;=:.\\\"() , : ; <>@\\[\\]\\\\\\\\]+@[a-zA-Z0-9-]+(\\. [a-zA-Z0-9-]+)*$";
    private Pattern EmailPattern = Pattern.compile(EMAIL_PATTERN);
    private static final String PASSWORD_PATTERN = "(?=.*[0-9])(?=.*[a-z])(?=.*[A-Z])(?=.*[@#$%^&+=])(?=\\S+$)\\. {4,}$";

```

```

private Pattern PassPattern = Pattern.compile(PASSWORD_PATTERN);
private Matcher matcherEmail, matcherPass;

private ProgressDialog mDialog;
private DatabaseReference mUsername;

//Firebase Authentification
private FirebaseAuth mAuth;

@Override
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
}

@Override
public View onCreateView(LayoutInflater inflater, ViewGroup container,
    Bundle savedInstanceState) {
    mAuth = FirebaseAuth.getInstance();
    mDialog = new ProgressDialog(getActivity());
    //Inflate View
    View view = inflater.inflate(R.layout.fragment_sign_up, container,
false);

    mEmailSignUpWrapper = (TextInputLayout)
view.findViewById(R.id.editEmailSignUpWrapper);
    mPassSignUpWrapper = (TextInputLayout)
view.findViewById(R.id.editPasswordSignUpWrapper);
    mUsernameSignUpWrapper = (TextInputLayout)
view.findViewById(R.id.editUsernameSignUpWrapper);
    btnReg = (Button) view.findViewById(R.id.btnSignUp);

    mEmailSignUpWrapper.setHint("E-mail");
    mPassSignUpWrapper.setHint("Password");
    mUsernameSignUpWrapper.setHint("Username");

    btnReg.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            String emailSignUp =
mEmailSignUpWrapper.getEditText().getText().toString().trim();
            String usernameSignUp =
mUsernameSignUpWrapper.getEditText().getText().toString().trim();
            String passSignUp =
mPassSignUpWrapper.getEditText().getText().toString().trim();

            if(!TextUtils.isEmpty(emailSignUp) &&
!TextUtils.isEmpty(usernameSignUp) && !TextUtils.isEmpty(passSignUp)){
                if (!validateEmail(emailSignUp)) {
                    mEmailSignUpWrapper.setError("Not a valid email
address!");
                }
                else if (!validateUsername(usernameSignUp)) {
                    mUsernameSignUpWrapper.setError("Username too
long!");
                }
                //The password must be at least 8 characters long and
include a number, lowercase letter, uppercase letter and special character
                else if (!validatePassword(passSignUp)) {
                    mPassSignUpWrapper.setError("Not a valid
password!\n" +
                        "Must be 8 characters (number, lowercase,

```

```

uppercase and special character)");
    }
    else {
        mEmailSignUpWrapper.setErrorEnabled(false);

        mUsernameSignUpWrapper.setErrorEnabled(false);

        mDialog.setMessage("Processing...");
        mDialog.show();

mAuth.createUserWithEmailAndPassword(emailSignUp, passSignUp).addOnCompleteListener(
new OnCompleteListener<AuthResult>() {
    @Override
    public void onComplete(@NonNull
Task<AuthResult> task) {
        if(task.isSuccessful()){
            //get User id
            FirebaseUser mUser =
mAuth.getCurrentUser();

            String uid = mUser.getId();

            //Create database child for username
            mUsername =
FirebaseDatabase.getInstance().getReference().child("Username").child(uid);
            String id = mUsername.push().getKey();
            if(id != null){
                User user = new User(id,
usernameSignUp);

                mUsername.child(id).setValue(user);
            }
            mDialog.dismiss();

            Toast.makeText(getActivity().getApplicationContext(), "Registration
Complete", Toast.LENGTH_SHORT).show();
            moveToHome();
        }
        else {
            mDialog.dismiss();

mPassSignUpWrapper.setErrorEnabled(true);
            mPassSignUpWrapper.setError("Incorrect
e-mail or password");

            Toast.makeText(getActivity().getApplicationContext(), "Registration
Failed", Toast.LENGTH_SHORT).show();
        }
    }
});
    }
    else {
        if(TextUtils.isEmpty(emailSignUp)){
            mEmailSignUpWrapper.setError("Email Required...");
            return;
        }
        if(TextUtils.isEmpty(usernameSignUp)){
            mUsernameSignUpWrapper.setError("Username
Required...");
            return;
        }
        if(TextUtils.isEmpty(passSignUp)){

```

```

        mPassSignUpWrapper.setError("Password
Required...");
    }
}

    });

    return view;
}

public boolean validateEmail(String email) {
    matcherEmail = EmailPattern.matcher(email);
    return matcherEmail.matches();
}

public boolean validateUsername(String username) {
    return username.length() <= 15;
}

public boolean validatePassword(String password) {
    matcherPass = PassPattern.matcher(password);
    return matcherPass.matches();
}

private void moveToHome() {
    Intent intent = new Intent(getActivity(), HomeActivity.class);
intent.setFlags(Intent.FLAG_ACTIVITY_CLEAR_TASK|Intent.FLAG_ACTIVITY_NEW_TA
SK);
    startActivity(intent);
}
}

```

SplashScreen.java

```

package id.ac.umn.leleair.kelompok.smallchange;

import androidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.os.Handler;

public class SplashScreen extends AppCompatActivity {

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

AppCompatActivity.setDefaultNightMode(AppCompatActivity.MODE_NIGHT_NO);

        final Handler handler = new Handler();
        handler.postDelayed(new Runnable() {
            @Override
            public void run() {
                startActivity(new

```

UserPanel.java

ViewPagerAdapter.java

```
package id.ac.umh.leleair.kelompok.smallchange;

import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentManager;
import androidx.fragment.app.FragmentPagerAdapter;
import androidx.lifecycle.Lifecycle;
import androidx.viewpager2.adapter.FragmentStateAdapter;

import java.util.ArrayList;
import java.util.List;

public class ViewPagerAdapter extends FragmentPagerAdapter {
    private final List<Fragment> mFragmentManager = new ArrayList<>();

    public ViewPagerAdapter(FragmentManager manager) {
        super(manager);
    }
}
```



```

    }

    @Override
    public Fragment getItem(int position) {
        return mFragmentManager.get(position);
    }

    @Override
    public int getCount() {
        return mFragmentManager.size();
    }

    public void addFrag(Fragment fragment) {
        mFragmentManager.add(fragment);
    }
}

```

tab_color_selector.xml

```

<?xml version="1.0" encoding="utf-8"?>
<selector xmlns:android="http://schemas.android.com/apk/res/android">
    <item android:color="@color/merah" android:state_selected="true"/>
    <item android:color="@color/biru"/>
</selector>

```

Background_icon.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

    <solid
        android:color="@color/biru" />
</shape>

```

Bordered_box.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

    <solid
        android:color="#FFFFFF" />

    <corners
        android:topLeftRadius="40sp"
        android:topRightRadius="40sp" />

</shape>

```

Bordered_box2.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

```

```

        <solid
            android:color="#f2f3fd" />

        <corners
            android:topLeftRadius="40sp"
            android:topRightRadius="40sp" />

</shape>

```

Bordered_box3.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

    <solid
        android:color="#f2f3fd" />

    <corners
        android:topRightRadius="40sp" />

</shape>

```

Bordered_box4.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

    <solid
        android:color="#f2f3fd" />

    <corners
        android:topLeftRadius="40sp" />

</shape>

```

Bordered_box_transparent.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

</shape>

```

Bordered_edit_text.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="rectangle">

    <stroke
        android:width="3sp"
        android:color="#e0bedd"/>

</shape>

```

```

    <corners
        android:topLeftRadius="16sp"
        android:topRightRadius="16sp"
        android:bottomRightRadius="16sp"
        android:bottomLeftRadius="16sp"/>

</shape>

```

Circle.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="oval">

    <solid
        android:color="@color/biru" />

    <size
        android:width="2000dp"
        android:height="2000dp"/>

</shape>

```

Circle_progress_income.xml

```

<?xml version="1.0" encoding="utf-8"?>
<layer-list xmlns:android="http://schemas.android.com/apk/res/android">
    <item>
        <shape
            android:shape="ring"
            android:thicknessRatio="6"
            android:useLevel="false">
            <solid android:color="@color/transparentLightBlue"/>
        </shape>
    </item>
    <item>
        <rotate
            android:fromDegrees="270"
            android:toDegrees="270">
            <shape
                android:shape="ring"
                android:thicknessRatio="6"
                android:useLevel="true">
                <solid android:color="@color/hijau"/>
            </shape>
        </rotate>
    </item>
</layer-list>

```

Circle_progress_outcome.xml

```

<?xml version="1.0" encoding="utf-8"?>
<layer-list xmlns:android="http://schemas.android.com/apk/res/android">
    <item>
        <shape
            android:shape="ring"
            android:thicknessRatio="6"

```

```

        android:useLevel="false">
        <solid android:color="@color/transparentLightBlue"/>
    </shape>
</item>
<item>
    <rotate
        android:fromDegrees="270"
        android:toDegrees="270">
        <shape
            android:shape="ring"
            android:thicknessRatio="6"
            android:useLevel="true">
            <solid android:color="@color/merah"/>
        </shape>
    </rotate>
</item>
</layer-list>

```

Circle_white.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android"
    android:shape="oval">

    <solid
        android:color="@color/white" />

    <size
        android:width="2000dp"
        android:height="2000dp"/>

</shape>

```

Ic_baseline_add_24.xml

```

<vector android:autoMirrored="true" android:height="24dp"
    android:tint="#FFFFFF" android:viewportHeight="24"
    android:viewportWidth="24" android:width="24dp"
    xmlns:android="http://schemas.android.com/apk/res/android">
    <path android:fillColor="@android:color/white"
        android:pathData="M19,13h-6v6h-2v-6H5v-2h6V5h2v6h6v2z"/>
</vector>

```

Ic_baseline_arrow_drop_down_24.xml

```

<vector android:autoMirrored="true" android:height="24dp"
    android:tint="#FFFFFF" android:viewportHeight="24"
    android:viewportWidth="24" android:width="24dp"
    xmlns:android="http://schemas.android.com/apk/res/android">
    <path android:fillColor="@android:color/white"
        android:pathData="M7,10l5,5 5,-5z"/>
</vector>

```

Ic_changephotobtn_18.xml

```

<vector android:autoMirrored="true" android:height="20dp"
    android:viewportHeight="87.95" android:viewportWidth="87.95"

```

```

        android:width="20dp"
xmlns:android="http://schemas.android.com/apk/res/android">
    <path android:fillColor="#fff" android:pathData="M43.97,43.97m-
43.97,0a43.97,43.97 0,1 1,87.94 0a43.97,43.97 0,1 1,-87.94 0"/>
    <path android:fillColor="#284098" android:pathData="M43.97,43.97m-
33.18,0a33.18,33.18 0,1 1,66.36 0a33.18,33.18 0,1 1,-66.36 0"/>
    <path android:fillColor="#fff" android:pathData="M49.8,46.41A5.83,5.83
0,1 1,44 40.58a5.83,5.83 0,0 1,5.83 5.83ZM62,38.13L62,54.69a4,4 0,0 1,-4
4L29.9,58.69a4,4 0,0 1,-4 -4L25.9,38.13a4,4 0,0 1,4 -
4h4.92L34.82,32.76a3.5,3.5 0,0 1,3.49 -3.5L49.64,29.26a3.5,3.5 0,0 1,3.49
3.5v1.38h4.92a4,4 0,0 1,4 4ZM52.8,46.41A8.83,8.83 0,1 0,44 55.24a8.83,8.83
0,0 0,8.83 -8.83ZM52.8,46.41"/>
</vector>

```

Ic_dashboardicon_13.xml

```

<vector xmlns:android="http://schemas.android.com/apk/res/android"
    android:width="54.64dp"
    android:height="46.38dp"
    android:viewportWidth="54.64"
    android:viewportHeight="46.38">
    <path
        android:pathData="M4.41,0L50.23,0A4.41,4.41 0,0 1,54.64
4.41L54.64,4.41A4.41,4.41 0,0 1,50.23 8.82L4.41,8.82A4.41,4.41 0,0 1,0
4.41L0,4.41A4.41,4.41 0,0 1,4.41 0z"
        android:fillColor="#284098"/>
    <path
        android:pathData="M4.41,18.17L50.23,18.17A4.41,4.41 0,0 1,54.64
22.58L54.64,22.58A4.41,4.41 0,0 1,50.23 26.99L4.41,26.99A4.41,4.41 0,0 1,0
22.58L0,22.58A4.41,4.41 0,0 1,4.41 18.17z"
        android:fillColor="#284098"/>
    <path
        android:pathData="M4.41,37.56L50.23,37.56A4.41,4.41 0,0 1,54.64
41.97L54.64,41.97A4.41,4.41 0,0 1,50.23 46.38L4.41,46.38A4.41,4.41 0,0 1,0
41.97L0,41.97A4.41,4.41 0,0 1,4.41 37.56z"
        android:fillColor="#284098"/>
</vector>

```

Ic_default_img_white_01.xml

```

<vector android:autoMirrored="true" android:height="441.5dp"
    android:viewportHeight="441.5" android:viewportWidth="441.5"
    android:width="441.5dp"
xmlns:android="http://schemas.android.com/apk/res/android">
    <path android:fillAlpha="0" android:fillColor="#fff"
        android:pathData="M0,0h441.5v441.5h-441.5z"
    android:strokeAlpha="0"/>
    <path android:fillColor="#fff"
    android:pathData="M220.75,221.58A56.25,56.25 0,1 1,277 165.33,56.31 56.31,0
0,1 220.75,221.58Z"/>
    <path android:fillColor="#fff" android:pathData="M308.25,322.42h-
175a6.25,6.25 0,0 1,-6.25 -6.25,82 82,0 0,1 23.76,-57.84 80.19,80.19 0,0
1,57.49 -24.25h25a80.19,80.19 0,0 1,57.49 24.25,82 82,0 0,1
23.76,57.84A6.25,6.25 0,0 1,308.25 322.42Z"/>
</vector>

```

Ic_default_user_photo_01.xml

```

<vector android:autoMirrored="true" android:height="441.5dp"
    android:viewportHeight="441.5" android:viewportWidth="441.5"
    android:width="441.5dp"
xmlns:android="http://schemas.android.com/apk/res/android">
    <path android:fillAlpha="0" android:fillColor="@color/biru"
        android:pathData="M0,0h441.5v441.5h-441.5z"
        android:strokeAlpha="0"/>
    <path android:fillColor="@color/biru"
        android:pathData="M220.75,221.58A56.25,56.25 0,1 1,277 165.33,56.31 56.31,0
0,1 220.75,221.58Z"/>
    <path android:fillColor="@color/biru"
        android:pathData="M308.25,322.42h-175a6.25,6.25 0,0 1,-6.25 -6.25,82 82,0
0,1 23.76,-57.84 80.19,80.19 0,0 1,57.49 -24.25h25a80.19,80.19 0,0 1,57.49
24.25,82 82,0 0,1 23.76,57.84A6.25,6.25 0,0 1,308.25 322.42Z"/>
</vector>

```

Activity_home.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".HomeActivity">

    <androidx.viewpager.widget.ViewPager
        android:id="@+id/viewpagerHome"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        android:paddingLeft="12dp"
        android:paddingRight="12dp"
        android:paddingBottom="5dp">

        <androidx.cardview.widget.CardView
            android:id="@+id/cardView"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            app:cardCornerRadius="20dp"
            app:cardElevation="5dp"
            app:cardPreventCornerOverlap="true"
            app:cardUseCompatPadding="true"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent">

            <com.google.android.material.tabs.TabLayout
                android:id="@+id/homeTabLayout"
                android:layout_width="match_parent"
                android:layout_height="64sp"
                android:background="@drawable/bordered_box"

```

```

        app:tabIndicatorFullWidth="false"
        app:tabIndicatorHeight="4sp"
        app:tabIconTint="@color/tab_color_selector"/>
    </androidx.cardview.widget.CardView>
</androidx.constraintlayout.widget.ConstraintLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_login.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:layout_width="match_parent"
android:layout_height="match_parent"
android:background="@color/biru"
tools:context=".Login">

    <androidx.constraintlayout.widget.ConstraintLayout
        android:id="@+id/constraintLayout1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="50sp"
        android:foregroundGravity="center_horizontal"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <ImageView
            android:id="@+id/imageView"
            android:layout_width="63sp"
            android:layout_height="96sp"
            android:background="@drawable/ic_logosplash_11"
            android:scaleType="center"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginStart="8sp"
            android:fontFamily="@font/bold"
            android:text="mall\nChange"
            android:textColor="@color/white"
            android:textSize="32sp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toEndOf="@+id/imageView"
            app:layout_constraintTop_toTopOf="parent" />
    </androidx.constraintlayout.widget.ConstraintLayout>

    <androidx.constraintlayout.widget.ConstraintLayout
        android:id="@+id/constraintLayout2"
        android:layout_marginTop="50sp"
        android:layout_width="match_parent"
        android:layout_height="700sp"

```

```

        android:background="@drawable/bordered_box"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/constraintLayout1">

        <androidx.viewpager2.widget.ViewPager2
            android:id="@+id/viewpagerLogin"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:background="@drawable/bordered_box" />

        <com.google.android.material.tabs.TabLayout
            android:id="@+id/loginTabLayout"
            android:layout_width="match_parent"
            android:layout_height="60sp"
            android:background="@drawable/bordered_box2"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="@+id/viewpagerLogin"
            app:tabIndicatorFullWidth="false"
            app:tabIndicatorHeight="4sp"
            app:tabTextAppearance="@style/tab_text"
            app:tabTextColor="@color/biru" />

    </androidx.constraintlayout.widget.ConstraintLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_main.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_splash_screen.xml

```

<?xml version="1.0" encoding="utf-8"?>
<resources>
    <attr format="reference" name="animate_relativeTo"/>
    <attr format="enum" name="arcMode">
        <enum name="startVertical" value="0"/>
        <enum name="startHorizontal" value="1"/>
        <enum name="flip" value="2"/>
    </attr>
</resources>

```



```

</attr>
<attr format="boolean" name="barrierAllowsGoneWidgets"/>
<attr format="enum" name="barrierDirection">
    <enum name="left" value="0"/>
    <enum name="right" value="1"/>
    <enum name="top" value="2"/>
    <enum name="bottom" value="3"/>
    <enum name="start" value="5"/>
    <enum name="end" value="6"/>
</attr>
<attr format="dimension" name="barrierMargin"/>
<attr format="boolean" name="chainUseRtl"/>
<attr format="dimension" name="circleRadius"/>
<attr format="reference" name="constraintSet"/>
<attr format="string" name="constraint_referenced_ids"/>
<attr format="string" name="constraint_referenced_tags"/>
<attr format="reference" name="content"/>
<attr format="enum" name="curveFit">
    <enum name="spline" value="0"/>
    <enum name="linear" value="1"/>
</attr>
<attr format="integer" name="defaultDuration"/>
<attr format="float" name="deltaPolarAngle"/>
<attr format="float" name="deltaPolarRadius"/>
<attr format="enum" name="dragDirection">
    <enum name="dragUp" value="0"/>
    <enum name="dragDown" value="1"/>
    <enum name="dragLeft" value="2"/>
    <enum name="dragRight" value="3"/>
    <enum name="dragStart" value="4"/>
    <enum name="dragEnd" value="5"/>
</attr>
<attr format="enum" name="drawPath">
    <enum name="none" value="0"/>
    <enum name="path" value="1"/>
    <enum name="pathRelative" value="2"/>
    <enum name="deltaRelative" value="3"/>
    <enum name="asConfigured" value="4"/>
    <enum name="rectangles" value="5"/>
</attr>
<attr format="integer" name="duration"/>
<attr format="float" name="flow_firstHorizontalBias"/>
<attr format="enum" name="flow_firstHorizontalStyle">
    <enum name="spread" value="0"/>
    <enum name="spread_inside" value="1"/>
    <enum name="packed" value="2"/>
</attr>
<attr format="float" name="flow_firstVerticalBias"/>
<attr format="enum" name="flow_firstVerticalStyle">
    <enum name="spread" value="0"/>
    <enum name="spread_inside" value="1"/>
    <enum name="packed" value="2"/>
</attr>
<attr format="enum" name="flow_horizontalAlign">
    <enum name="start" value="0"/>
    <enum name="end" value="1"/>
    <enum name="center" value="2"/>
</attr>
<attr format="float" name="flow_horizontalBias"/>
<attr format="dimension" name="flow_horizontalGap"/>
<attr format="enum" name="flow_horizontalStyle">

```

```

        <enum name="spread" value="0"/>
        <enum name="spread_inside" value="1"/>
        <enum name="packed" value="2"/>
    </attr>
    <attr format="float" name="flow_lastHorizontalBias"/>
    <attr format="enum" name="flow_lastHorizontalStyle">
        <enum name="spread" value="0"/>
        <enum name="spread_inside" value="1"/>
        <enum name="packed" value="2"/>
    </attr>
    <attr format="float" name="flow_lastVerticalBias"/>
    <attr format="enum" name="flow_lastVerticalStyle">
        <enum name="spread" value="0"/>
        <enum name="spread_inside" value="1"/>
        <enum name="packed" value="2"/>
    </attr>
    <attr format="integer" name="flow_maxElementsWrap"/>
    <attr format="dimension" name="flow_padding"/>
    <attr format="enum" name="flow_verticalAlign">
        <enum name="top" value="0"/>
        <enum name="bottom" value="1"/>
        <enum name="center" value="2"/>
        <enum name="baseline" value="3"/>
    </attr>
    <attr format="float" name="flow_verticalBias"/>
    <attr format="dimension" name="flow_verticalGap"/>
    <attr format="enum" name="flow_verticalStyle">
        <enum name="spread" value="0"/>
        <enum name="spread_inside" value="1"/>
        <enum name="packed" value="2"/>
    </attr>
    <attr format="enum" name="flow_wrapMode">
        <enum name="none" value="0"/>
        <enum name="chain" value="1"/>
        <enum name="aligned" value="2"/>
    </attr>
    <attr format="integer" name="framePosition"/>
    <attr format="reference" name="layoutDescription"/>
    <attr format="enum" name="layoutDuringTransition">
        <enum name="ignoreRequest" value="0"/>
        <enum name="honorRequest" value="1"/>
    </attr>
    <attr format="boolean" name="layout_constrainedHeight"/>
    <attr format="boolean" name="layout_constrainedWidth"/>
    <attr format="integer" name="layout_constraintBaseline_creator"/>
    <attr format="reference|enum"
name="layout_constraintBaseline_toBaselineOf">
        <enum name="parent" value="0"/>
    </attr>
    <attr format="integer" name="layout_constraintBottom_creator"/>
    <attr format="reference|enum"
name="layout_constraintBottom_toBottomOf">
        <enum name="parent" value="0"/>
    </attr>
    <attr format="reference|enum" name="layout_constraintBottom_toTopOf">
        <enum name="parent" value="0"/>
    </attr>
    <attr format="reference" name="layout_constraintCircle"/>
    <attr format="integer" name="layout_constraintCircleAngle"/>
    <attr format="dimension" name="layout_constraintCircleRadius"/>
    <attr format="string" name="layout_constraintDimensionRatio"/>

```

```

<attr format="reference|enum" name="layout_constraintEnd_toEndOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="reference|enum" name="layout_constraintEnd_toStartOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="dimension" name="layout_constraintGuide_begin"/>
<attr format="dimension" name="layout_constraintGuide_end"/>
<attr format="float" name="layout_constraintGuide_percent"/>
<attr name="layout_constraintHeight_default">
  <enum name="spread" value="0"/>
  <enum name="wrap" value="1"/>
  <enum name="percent" value="2"/>
</attr>
<attr format="dimension|enum" name="layout_constraintHeight_max">
  <enum name="wrap" value="-2"/>
</attr>
<attr format="dimension|enum" name="layout_constraintHeight_min">
  <enum name="wrap" value="-2"/>
</attr>
<attr format="float" name="layout_constraintHeight_percent"/>
<attr format="float" name="layout_constraintHorizontal_bias"/>
<attr format="enum" name="layout_constraintHorizontal_chainStyle">
  <enum name="spread" value="0"/>
  <enum name="spread inside" value="1"/>
  <enum name="packed" value="2"/>
</attr>
<attr format="float" name="layout_constraintHorizontal_weight"/>
<attr format="integer" name="layout_constraintLeft_creator"/>
<attr format="reference|enum" name="layout_constraintLeft_toLeftOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="reference|enum" name="layout_constraintLeft_toRightOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="integer" name="layout_constraintRight_creator"/>
<attr format="reference|enum" name="layout_constraintRight_toLeftOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="reference|enum" name="layout_constraintRight_toRightOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="reference|enum" name="layout_constraintStart_toEndOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="reference|enum" name="layout_constraintStart_toStartOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="string" name="layout_constraintTag"/>
<attr format="integer" name="layout_constraintTop_creator"/>
<attr format="reference|enum" name="layout_constraintTop_toBottomOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="reference|enum" name="layout_constraintTop_toTopOf">
  <enum name="parent" value="0"/>
</attr>
<attr format="float" name="layout_constraintVertical_bias"/>
<attr format="enum" name="layout_constraintVertical_chainStyle">
  <enum name="spread" value="0"/>
  <enum name="spread inside" value="1"/>
  <enum name="packed" value="2"/>

```

```

</attr>
<attr format="float" name="layout_constraintVertical_weight"/>
<attr name="layout_constraintWidth_default">
  <enum name="spread" value="0"/>
  <enum name="wrap" value="1"/>
  <enum name="percent" value="2"/>
</attr>
<attr format="dimension|enum" name="layout_constraintWidth_max">
  <enum name="wrap" value="-2"/>
</attr>
<attr format="dimension|enum" name="layout_constraintWidth_min">
  <enum name="wrap" value="-2"/>
</attr>
<attr format="float" name="layout_constraintWidth_percent"/>
<attr format="dimension" name="layout_editor_absoluteX"/>
<attr format="dimension" name="layout_editor_absoluteY"/>
<attr format="dimension" name="layout_goneMarginBottom"/>
<attr format="dimension" name="layout_goneMarginEnd"/>
<attr format="dimension" name="layout_goneMarginLeft"/>
<attr format="dimension" name="layout_goneMarginRight"/>
<attr format="dimension" name="layout_goneMarginStart"/>
<attr format="dimension" name="layout_goneMarginTop"/>
<attr name="layout_optimizationLevel">
  <flag name="none" value="0"/>
  <flag name="standard" value="257"/> <!-- direct, measure caches -->
  <flag name="direct" value="1"/>
  <flag name="barrier" value="2"/>
  <flag name="chains" value="4"/>
  <flag name="dimensions" value="8"/>
  <flag name="ratio" value="16"/>
  <flag name="groups" value="32"/>
  <flag name="graph" value="64"/>
  <flag name="graph_wrap" value="128"/>
  <flag name="cache_measures" value="256"/>
  <flag name="dependency_ordering" value="512"/>
  <flag name="grouping" value="1024"/>
</attr>
<attr format="float" name="motionPathRotate"/>
<attr format="float" name="motionProgress"/>
<attr format="float" name="motionStagger"/>
<attr format="reference|string" name="motionTarget"/>
<attr format="enum" name="pathMotionArc">
  <enum name="none" value="0"/>
  <enum name="startVertical" value="1"/>
  <enum name="startHorizontal" value="2"/>
  <enum name="flip" value="3"/>
</attr>
<attr format="float" name="path_percent"/>
<attr format="float" name="perpendicularPath_percent"/>
<attr format="reference|enum" name="pivotAnchor">
  <enum name="parent" value="0"/>
</attr>
<attr name="placeholder_emptyVisibility">
  <enum name="visible" value="0"/>
  <enum name="invisible" value="4"/>
  <enum name="gone" value="8"/>
</attr>
<attr format="float" name="sizePercent"/>
<attr format="reference" name="targetId"/>
<attr format="reference" name="touchAnchorId"/>
<attr format="enum" name="touchAnchorSide">

```

```

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        <enum name="left" value="1"/>
        <enum name="right" value="2"/>
        <enum name="bottom" value="3"/>
        <enum name="middle" value="4"/>
        <enum name="start" value="5"/>
        <enum name="end" value="6"/>
    </attr>
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        <enum name="accelerate" value="1"/>
        <enum name="decelerate" value="2"/>
        <enum name="linear" value="3"/>
    </attr>
    <attr format="float" name="transitionPathRotate"/>
    <attr format="enum" name="visibilityMode">
        <enum name="normal" value="0"/>
        <enum name="ignore" value="1"/>
    </attr>
    <attr format="integer" name="waveDecay"/>
    <attr format="float|dimension" name="waveOffset"/>
    <attr format="float" name="wavePeriod"/>
    <attr format="enum" name="waveShape">
        <enum name="sin" value="0"/>
        <enum name="square" value="1"/>
        <enum name="triangle" value="2"/>
        <enum name="sawtooth" value="3"/>
        <enum name="reverseSawtooth" value="4"/>
        <enum name="cos" value="5"/>
        <enum name="bounce" value="6"/>
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        <enum name="path" value="1"/>
    </attr>
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name="android:visibility"/><attr name="visibilityMode"/><attr
name="android:alpha"/><attr name="android:elevation"/><attr
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name="android:rotationY"/><attr name="android:scaleX"/><attr
name="android:scaleY"/><attr name="pivotAnchor"/><attr
name="android:transformPivotX"/><attr name="android:transformPivotY"/><attr
name="android:translationX"/><attr name="android:translationY"/><attr
name="android:translationZ"/><attr name="android:layout_width"/><attr
name="android:layout_height"/><attr
name="android:layout_marginStart"/><attr
name="android:layout_marginBottom"/><attr
name="android:layout_marginTop"/><attr
name="android:layout_marginEnd"/><attr
name="android:layout_marginLeft"/><attr
name="android:layout_marginRight"/><attr
name="layout_constraintCircle"/><attr
name="layout_constraintCircleRadius"/><attr
name="layout_constraintCircleAngle"/><attr
name="layout_constraintGuide_begin"/><attr
name="layout_constraintGuide_end"/><attr
name="layout_constraintGuide_percent"/><attr
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name="layout_constraintLeft_toRightOf"/><attr
name="layout_constraintRight_toLeftOf"/><attr

```

```

name="layout_constraintRight_toRightOf"/><attr
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name="layout_constraintBaseline_toBaselineOf"/><attr
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name="layout_constraintStart_toStartOf"/><attr
name="layout_constraintEnd_toStartOf"/><attr
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name="layout_goneMarginRight"/><attr name="layout_goneMarginBottom"/><attr
name="layout_goneMarginStart"/><attr name="layout_goneMarginEnd"/><attr
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name="layout_constraintWidth_max"/><attr
name="layout_constraintWidth_percent"/><attr
name="layout_constraintHeight_min"/><attr
name="layout_constraintHeight_max"/><attr
name="layout_constraintHeight_percent"/><attr
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name="layout_constraintRight_creator"/><attr
name="layout_constraintBottom_creator"/><attr
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name="layout_constraintVertical_weight"/><attr
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name="layout_constraintVertical_chainStyle"/><attr
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name="android:maxLength"/><attr name="android:minHeight"/><attr
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name="flow_horizontalBias"/><attr name="flow_wrapMode"/><attr
name="flow_maxElementsWrap"/><attr name="flow_horizontalGap"/><attr
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name="flow_firstVerticalStyle"/><attr
name="flow_firstHorizontalBias"/><attr name="flow_firstVerticalBias"/><attr
name="flow_lastHorizontalStyle"/><attr name="flow_lastVerticalStyle"/><attr
name="flow_lastHorizontalBias"/><attr name="flow_lastVerticalBias"/><attr
name="animate_relativeTo"/><attr name="transitionEasing"/><attr
name="pathMotionArc"/><attr name="transitionPathRotate"/><attr
name="drawPath"/><attr name="motionProgress"/><attr
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styleable>
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name="android:maxHeight"/><attr name="android:visibility"/><attr
name="android:elevation"/><attr name="layout_optimizationLevel"/><attr

```

```

name="layoutDescription"/><attr name="constraintSet"/><attr
name="barrierDirection"/><attr name="barrierAllowsGoneWidgets"/><attr
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name="flow_horizontalStyle"/><attr name="flow_verticalStyle"/><attr
name="flow_wrapMode"/><attr name="flow_maxElementsWrap"/><attr
name="flow_horizontalGap"/><attr name="flow_verticalGap"/><attr
name="android:padding"/><attr name="android:paddingTop"/><attr
name="android:paddingBottom"/><attr name="android:paddingLeft"/><attr
name="android:paddingRight"/><attr name="android:paddingStart"/><attr
name="android:paddingEnd"/><attr name="flow_verticalAlign"/><attr
name="flow_horizontalAlign"/><attr name="flow_verticalBias"/><attr
name="flow_horizontalBias"/><attr name="flow_firstHorizontalStyle"/><attr
name="flow_firstVerticalStyle"/><attr
name="flow_firstHorizontalBias"/><attr name="flow_firstVerticalBias"/><attr
name="flow_lastHorizontalStyle"/><attr name="flow_lastVerticalStyle"/><attr
name="flow_lastHorizontalBias"/><attr name="flow_lastVerticalBias"/><attr
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name="layout_constraintCircleRadius"/><attr
name="layout_constraintCircleAngle"/><attr
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name="layout_constraintGuide_end"/><attr
name="layout_constraintGuide_percent"/><attr
name="layout_constraintLeft_toLeftOf"/><attr
name="layout_constraintLeft_toRightOf"/><attr
name="layout_constraintRight_toLeftOf"/><attr
name="layout_constraintRight_toRightOf"/><attr
name="layout_constraintTop_toTopOf"/><attr
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name="layout_constraintBottom_toTopOf"/><attr
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name="layout_constrainedHeight"/><attr
name="layout_constraintHorizontal_bias"/><attr
name="layout_constraintVertical_bias"/><attr
name="layout_constraintWidth_default"/><attr
name="layout_constraintHeight_default"/><attr
name="layout_constraintWidth_min"/><attr
name="layout_constraintWidth_max"/><attr
name="layout_constraintWidth_percent"/><attr
name="layout_constraintHeight_min"/><attr
name="layout_constraintHeight_max"/><attr
name="layout_constraintHeight_percent"/><attr
name="layout_constraintLeft_creator"/><attr
name="layout_constraintTop_creator"/><attr
name="layout_constraintRight_creator"/><attr
name="layout_constraintBottom_creator"/><attr
name="layout_constraintBaseline_creator"/><attr
name="layout_constraintDimensionRatio"/><attr
name="layout_constraintHorizontal_weight"/><attr
name="layout_constraintVertical_weight"/><attr
name="layout_constraintHorizontal_chainStyle"/><attr
name="layout_constraintVertical_chainStyle"/><attr

```



```

name="layout_editor_absoluteX"/><attr name="layout_editor_absoluteY"/><attr
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styleable>
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name="android:alpha"/><attr name="android:elevation"/><attr
name="android:rotation"/><attr name="android:rotationX"/><attr
name="android:rotationY"/><attr name="android:scaleX"/><attr
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name="android:translationZ"/><attr name="android:layout_width"/><attr
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name="android:layout_marginStart"/><attr
name="android:layout_marginBottom"/><attr
name="android:layout_marginTop"/><attr
name="android:layout_marginEnd"/><attr
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name="android:layout_marginRight"/><attr
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name="layout_constraintCircleAngle"/><attr
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name="layout_constraintGuide_end"/><attr
name="layout_constraintGuide_percent"/><attr
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name="layout_constraintBottom_toTopOf"/><attr
name="layout_constraintBottom_toBottomOf"/><attr
name="layout_constraintBaseline_toBaselineOf"/><attr
name="layout_constraintStart_toEndOf"/><attr
name="layout_constraintStart_toStartOf"/><attr
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name="layout_goneMarginRight"/><attr name="layout_goneMarginBottom"/><attr
name="layout_goneMarginStart"/><attr name="layout_goneMarginEnd"/><attr
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name="layout_constrainedHeight"/><attr
name="layout_constraintHorizontal_bias"/><attr
name="layout_constraintVertical_bias"/><attr
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name="layout_constraintHeight_default"/><attr
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name="layout_constraintWidth_max"/><attr
name="layout_constraintWidth_percent"/><attr
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name="layout_constraintHeight_max"/><attr
name="layout_constraintHeight_percent"/><attr
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name="layout_constraintTop_creator"/><attr
name="layout_constraintRight_creator"/><attr
name="layout_constraintBottom_creator"/><attr

```



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name="layout_constraintVertical_weight"/><attr
name="layout_constraintHorizontal_chainStyle"/><attr
name="layout_constraintVertical_chainStyle"/><attr
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name="android:minHeight"/><attr name="android:minWidth"/><attr
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name="flow_verticalBias"/><attr name="flow_horizontalBias"/><attr
name="flow_wrapMode"/><attr name="flow_maxElementsWrap"/><attr
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name="flow_firstHorizontalStyle"/><attr
name="flow_firstVerticalStyle"/><attr
name="flow_firstHorizontalBias"/><attr name="flow_firstVerticalBias"/><attr
name="flow_lastHorizontalStyle"/><attr name="flow_lastVerticalStyle"/><attr
name="flow_lastHorizontalBias"/><attr name="flow_lastVerticalBias"/><attr
name="animate_relativeTo"/><attr name="transitionEasing"/><attr
name="pathMotionArc"/><attr name="transitionPathRotate"/><attr
name="motionStagger"/><attr name="drawPath"/><attr
name="motionProgress"/><attr name="layout_constraintTag"/></declare-
styleable>
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format="color" name="customColorDrawableValue"/><attr format="integer"
name="customIntegerValue"/><attr format="float"
name="customFloatValue"/><attr format="string"
name="customStringValue"/><attr format="dimension"
name="customDimension"/><attr format="dimension"
name="customPixelDimension"/><attr format="boolean"
name="customBoolean"/></declare-styleable>
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name="altSrc"/><attr format="float" name="saturation"/><attr format="float"
name="brightness"/><attr format="float" name="warmth"/><attr format="float"
name="contrast"/><attr format="float" name="crossfade"/><attr
format="dimension" name="round"/><attr format="boolean"
name="overlay"/><attr format="float" name="roundPercent"/></declare-
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name="transitionEasing"/><attr name="curveFit"/><attr
name="motionProgress"/><attr name="android:alpha"/><attr
name="android:elevation"/><attr name="android:rotation"/><attr
name="android:rotationX"/><attr name="android:rotationY"/><attr
name="android:transformPivotX"/><attr name="android:transformPivotY"/><attr
name="transitionPathRotate"/><attr name="android:scaleX"/><attr
name="android:scaleY"/><attr name="android:translationX"/><attr
name="android:translationY"/><attr name="android:translationZ"/></declare-
styleable>
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name="curveFit"/><attr name="framePosition"/><attr
name="transitionEasing"/><attr name="motionProgress"/><attr
name="waveShape"/><attr name="wavePeriod"/><attr name="waveOffset"/><attr
name="waveVariesBy"/><attr name="transitionPathRotate"/><attr
name="android:alpha"/><attr name="android:elevation"/><attr
name="android:rotation"/><attr name="android:rotationX"/><attr

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```

name="android:rotationY"/><attr name="android:scaleX"/><attr
name="android:scaleY"/><attr name="android:translationX"/><attr
name="android:translationY"/><attr name="android:translationZ"/></declare-
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    <declare-styleable name="KeyFrame"/>
    <declare-styleable name="KeyFramesAcceleration"/>
    <declare-styleable name="KeyFramesVelocity"/>
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        <enum name="parentRelative" value="2"/>
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name="percentY"/><attr format="float" name="percentWidth"/><attr
format="float" name="percentHeight"/><attr name="framePosition"/><attr
name="motionTarget"/><attr name="transitionEasing"/><attr
name="pathMotionArc"/><attr name="curveFit"/><attr name="drawPath"/><attr
name="sizePercent"/></declare-styleable>
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name="framePosition"/><attr name="motionTarget"/><attr
name="transitionEasing"/><attr name="curveFit"/><attr
name="waveShape"/><attr name="wavePeriod"/><attr
name="motionProgress"/><attr name="waveOffset"/><attr
name="waveDecay"/><attr name="android:alpha"/><attr
name="android:elevation"/><attr name="android:rotation"/><attr
name="android:rotationX"/><attr name="android:rotationY"/><attr
name="transitionPathRotate"/><attr name="android:scaleX"/><attr
name="android:scaleY"/><attr name="android:translationX"/><attr
name="android:translationY"/><attr name="android:translationZ"/></declare-
styleable>
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name="motionTarget"/><attr format="reference" name="triggerReceiver"/><attr
format="string" name="onNegativeCross"/><attr format="string"
name="onPositiveCross"/><attr format="string" name="onCross"/><attr
format="float" name="triggerSlack"/><attr format="reference"
name="triggerId"/><attr format="boolean"
name="motion_postLayoutCollision"/><attr format="reference"
name="motion_triggerOnCollision"/></declare-styleable>
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name="android:layout_width"/><attr name="android:layout_height"/><attr
name="android:layout_marginStart"/><attr
name="android:layout_marginBottom"/><attr
name="android:layout_marginTop"/><attr
name="android:layout_marginEnd"/><attr
name="android:layout_marginLeft"/><attr
name="android:layout_marginRight"/><attr
name="layout_constraintCircle"/><attr
name="layout_constraintCircleRadius"/><attr
name="layout_constraintCircleAngle"/><attr
name="layout_constraintGuide_begin"/><attr
name="layout_constraintGuide_end"/><attr
name="layout_constraintGuide_percent"/><attr
name="layout_constraintLeft_toLeftOf"/><attr
name="layout_constraintLeft_toRightOf"/><attr
name="layout_constraintRight_toLeftOf"/><attr
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name="layout_constraintBottom_toTopOf"/><attr
name="layout_constraintBottom_toBottomOf"/><attr
name="layout_constraintBaseline_toBaselineOf"/><attr

```

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name="layout_constraintStart_toEndOf"/><attr
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name="layout_goneMarginRight"/><attr name="layout_goneMarginBottom"/><attr
name="layout_goneMarginStart"/><attr name="layout_goneMarginEnd"/><attr
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name="layout_constraintHorizontal_bias"/><attr
name="layout_constraintVertical_bias"/><attr
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name="layout_constraintWidth_max"/><attr name="android:orientation"/><attr
name="layout_constraintWidth_percent"/><attr
name="layout_constraintHeight_min"/><attr
name="layout_constraintHeight_max"/><attr
name="layout_constraintHeight_percent"/><attr
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name="layout_constraintTop_creator"/><attr
name="layout_constraintRight_creator"/><attr
name="layout_constraintBottom_creator"/><attr
name="layout_constraintBaseline_creator"/><attr
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name="layout_constraintHorizontal_weight"/><attr
name="layout_constraintVertical_weight"/><attr
name="layout_constraintHorizontal_chainStyle"/><attr
name="layout_constraintVertical_chainStyle"/><attr
name="layout_editor_absoluteX"/><attr name="layout_editor_absoluteY"/><attr
name="barrierDirection"/><attr name="barrierMargin"/><attr
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name="constraint_referenced_tags"/><attr format="dimension"
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format="dimension" name="minHeight"/><attr format="dimension"
name="minWidth"/><attr name="barrierAllowsGoneWidgets"/><attr
name="chainUseRtl"/></declare-styleable>
    <declare-styleable name="MockView"><attr format="string"
name="mock_label"/><attr format="color" name="mock_labelColor"/><attr
format="color" name="mock_labelBackgroundColor"/><attr format="color"
name="mock_diagonalsColor"/><attr format="boolean"
name="mock_showDiagonals"/><attr format="boolean"
name="mock_showLabel"/></declare-styleable>
    <declare-styleable name="Motion"><attr name="animate_relativeTo"/><attr
name="transitionEasing"/><attr name="pathMotionArc"/><attr
name="motionPathRotate"/><attr name="motionStagger"/><attr
name="drawPath"/></declare-styleable>
    <declare-styleable name="MotionHelper"><attr format="boolean"
name="onShow"/><attr format="boolean" name="onHide"/></declare-styleable>
    <declare-styleable name="MotionLayout"><attr
name="layoutDescription"/><attr format="reference"
name="currentState"/><attr name="motionProgress"/><attr format="boolean"
name="applyMotionScene"/><attr format="boolean" name="showPaths"/><attr
format="enum" name="motionDebug">
        <enum name="NO_DEBUG" value="0"/>
        <enum name="SHOW_PROGRESS" value="1"/>
        <enum name="SHOW_PATH" value="2"/>
        <enum name="SHOW_ALL" value="3"/>
    </attr></declare-styleable>
    <declare-styleable name="MotionScene"><attr
name="defaultDuration"/><attr name="layoutDuringTransition"/></declare-

```

```

styleable>
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name="telltales_velocityMode">
        <enum name="layout" value="0"/>
        <enum name="postLayout" value="1"/>
        <enum name="staticPostLayout" value="2"/>
        <enum name="staticLayout" value="3"/>
    </attr><attr format="color" name="telltales_tailColor"/><attr
format="float" name="telltales_tailScale"/></declare-styleable>
    <declare-styleable name="OnClick"><attr name="targetId"/><attr
name="clickAction">
        <flag name="toggle" value="0x0011"/>
        <flag name="transitionToEnd" value="0x0001"/>
        <flag name="transitionToStart" value="0x0010"/>
        <flag name="jumpToEnd" value="0x100"/>
        <flag name="jumpToStart" value="0x1000"/>
    </attr></declare-styleable>
    <declare-styleable name="OnSwipe"><attr format="float"
name="dragScale"/><attr format="float" name="dragThreshold"/><attr
format="float" name="maxVelocity"/><attr format="float"
name="maxAcceleration"/><attr name="dragDirection"/><attr
name="touchAnchorId"/><attr name="touchAnchorSide"/><attr
format="reference" name="touchRegionId"/><attr format="reference"
name="limitBoundsTo"/><attr format="flags" name="nestedScrollFlags">
        <flag name="none" value="0"/>
        <flag name="disablePostScroll" value="1"/>
        <flag name="disableScroll" value="2"/>
    </attr><attr format="boolean" name="moveWhenScrollAtTop"/><attr
format="enum" name="onTouchUp">
        <enum name="autoComplete" value="0"/>
        <enum name="autoCompleteToStart" value="1"/>
        <enum name="autoCompleteToEnd" value="2"/>
        <enum name="stop" value="3"/>
        <enum name="decelerate" value="4"/>
        <enum name="decelerateAndComplete" value="5"/>
    </attr></declare-styleable>
    <declare-styleable name="PropertySet"><attr
name="android:visibility"/><attr name="visibilityMode"/><attr
format="float" name="android:alpha"/><attr name="motionProgress"/><attr
name="layout_constraintTag"/></declare-styleable>
    <declare-styleable name="State"><attr name="android:id"/><attr
format="reference" name="constraints"/></declare-styleable>
    <declare-styleable name="StateSet"><attr format="reference"
name="defaultState"/></declare-styleable>
    <declare-styleable name="Transform"><attr
name="android:elevation"/><attr name="android:rotation"/><attr
name="android:rotationX"/><attr name="android:rotationY"/><attr
name="android:scaleX"/><attr name="android:scaleY"/><attr
name="android:transformPivotX"/><attr name="android:transformPivotY"/><attr
format="dimension" name="android:translationX"/><attr format="dimension"
name="android:translationY"/><attr format="dimension"
name="android:translationZ"/></declare-styleable>
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format="reference" name="constraintSetStart"/><attr format="reference"
name="constraintSetEnd"/><attr format="boolean"
name="transitionDisable"/><attr name="layoutDuringTransition"/><attr
name="pathMotionArc"/><attr format="enum" name="autoTransition">
        <enum name="none" value="0"/>
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        <enum name="jumpToEnd" value="2"/>
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```

```

        <enum name="animateToEnd" value="4"/>
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name="motionInterpolator">
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        <enum name="easeIn" value="1"/>
        <enum name="easeOut" value="2"/>
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name="staggered"/><attr name="transitionFlags">
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        <flag name="beginOnFirstDraw" value="1"/>
    />
</attr></declare-styleable>
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name="region_widthMoreThan"/><attr format="dimension"
name="region_heightLessThan"/><attr format="dimension"
name="region_heightMoreThan"/><attr name="constraints"/></declare-
styleable>
    <item name="motion_base" type="id"/>
</resources>

```

Change_pass_form.xml

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.cardview.widget.CardView
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
android:id="@+id/changePassPopUp"
android:layout_width="match_parent"
android:layout_height="wrap_content"
xmlns:app="http://schemas.android.com/apk/res-auto"
app:cardCornerRadius="20dp"
app:cardElevation="5dp"
app:cardPreventCornerOverlap="true"
app:cardUseCompatPadding="true">

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="30dp">

        <TextView
            android:id="@+id/textView3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginBottom="210dp"
            android:fontFamily="@font/bold"
            android:text="Change Password"
            android:textColor="@color/biru"
            android:textSize="20sp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <EditText
            android:id="@+id/tvOldPass"
            android:layout_width="match_parent"

```

```

        android:layout_height="50dp"
        android:layout_marginTop="20dp"
        android:background="@drawable/bordered_edit_text"
        android:fontFamily="@font/medium"
        android:hint="Old Password"
        android:inputType="textPassword"
        android:paddingLeft="12dp"
        android:paddingRight="12dp"
        android:textAlignment="center"
        android:textSize="18sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView3" />

<EditText
    android:id="@+id/tvNewPass"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:layout_marginTop="10dp"
    android:background="@drawable/bordered_edit_text"
    android:fontFamily="@font/medium"
    android:hint="New Password"
    android:inputType="textPassword"
    android:paddingLeft="12dp"
    android:paddingRight="12dp"
    android:textAlignment="center"
    android:textSize="18sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tvOldPass" />

<com.google.android.material.button.MaterialButton
    android:id="@+id/btnChangePass"
    android:layout_width="match_parent"
    android:layout_height="60sp"
    android:layout_marginTop="20dp"
    android:fontFamily="@font/bold"
    android:text="Change"
    android:textAppearance="@style/button_text"
    app:cornerRadius="18sp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tvNewPass" />
</androidx.constraintlayout.widget.ConstraintLayout>

</androidx.cardview.widget.CardView>

```

Customview_spinner.xml

```

<?xml version="1.0" encoding="utf-8"?>
<TextView
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/tvFilter"
    android:textAlignment="center"
    android:fontFamily="@font/semibold"
    android:textSize="16dp"
    android:textColor="@color/white"
    android:padding="10dp">

```

```
</TextView>
```

Forgot_password.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.cardview.widget.CardView
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/forgotPassword"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    app:cardCornerRadius="20dp"
    app:cardElevation="5dp"
    app:cardPreventCornerOverlap="true"
    app:cardUseCompatPadding="true">

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="30dp">

        <TextView
            android:id="@+id/textView1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:textAlignment="center"
            android:fontFamily="@font/bold"
            android:text="I forgot my Email or Password"
            android:textColor="@color/biru"
            android:textSize="20sp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <TextView
            android:id="@+id/textView3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginTop="20dp"
            android:fontFamily="@font/medium"
            android:text="Enter your email address"
            android:textColor="@color/biru"
            android:textSize="16sp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/textView1" />

        <EditText
            android:id="@+id/tvEmailConfirm"
            android:layout_width="match_parent"
            android:layout_height="50dp"
            android:layout_marginTop="10dp"
            android:background="@drawable/bordered_edit_text"
            android:fontFamily="@font/medium"
            android:hint="Your Email"
            android:inputType="textEmailAddress"
            android:paddingLeft="12dp"
            android:paddingRight="12dp"
```



```

        android:textAlignment="center"
        android:textSize="18sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView3" />

        <com.google.android.material.button.MaterialButton
            android:id="@+id/btnSend"
            android:layout_width="match_parent"
            android:layout_height="60sp"
            android:layout_marginTop="20dp"
            android:fontFamily="@font/bold"
            android:text="Send"
            android:textAppearance="@style/button_text"
            app:cornerRadius="18sp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/tvEmailConfirm" />
    </androidx.constraintlayout.widget.ConstraintLayout>

</androidx.cardview.widget.CardView>

```

Fragment_dashboard.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Dashboard">

    <ImageView
        android:id="@+id/backgroundBox"
        android:layout_width="match_parent"
        android:layout_height="400dp"
        android:translationY="400dp"
        android:alpha="0"
        android:background="@drawable/bordered_box2"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

    <ImageView
        android:layout_width="wrap_content"
        android:layout_height="110dp"
        android:background="@drawable/ic_wave_03"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

    <ScrollView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="110dp"
        android:scrollbarThumbHorizontal="@null"
        android:scrollbarThumbVertical="@null"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/constraintLayout">

```



```

<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:paddingLeft="20dp"
    android:paddingRight="20dp">

    <RadioGroup
        android:id="@+id/RadioFilter"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/cardView3">

        <RadioButton
            android:id="@+id/RadioToday"
            android:layout_width="92dp"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:background="@drawable/radio_selector"
            android:button="@android:color/transparent"
            android:elevation="4dp"
            android:fontFamily="@font/bold"
            android:padding="16dp"
            android:text="Today"
            android:textAlignment="center"
            android:textColor="@drawable/radio_button_text" />

        <RadioButton
            android:id="@+id/Radio7D"
            android:layout_width="92dp"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:background="@drawable/radio_selector"
            android:button="@android:color/transparent"
            android:elevation="4dp"
            android:fontFamily="@font/bold"
            android:padding="16dp"
            android:text="7 days"
            android:textAlignment="center"
            android:textColor="@drawable/radio_button_text" />

        <RadioButton
            android:id="@+id/Radio31D"
            android:layout_width="92dp"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:background="@drawable/radio_selector"
            android:button="@android:color/transparent"
            android:elevation="4dp"
            android:fontFamily="@font/bold"
            android:padding="16dp"
            android:text="31 days"
            android:textAlignment="center"
            android:textColor="@drawable/radio_button_text" />

    </RadioGroup>

</androidx.constraintlayout.widget.ConstraintLayout>

<androidx.cardview.widget.CardView

```

```

        android:id="@+id/cardView2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginLeft="10dp"
        android:layout_marginRight="10dp"
        app:cardCornerRadius="26dp"
        app:cardElevation="4dp"
        app:cardPreventCornerOverlap="true"
        app:cardUseCompatPadding="true"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="20dp">

    <TextView
        android:id="@+id/tvTextBalance"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="@font/bold"
        android:text="Current Balance"
        android:textColor="@color/black"
        android:textSize="16sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/tvCurrentBalance"
        android:layout_width="260dp"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:fontFamily="@font/bold"
        android:text="0"
        android:textColor="@color/black"
        android:textSize="34sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/tvTextBalance" />

    <TextView
        android:id="@+id/tvViewHistory"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="8dp"
        android:fontFamily="@font/medium"
        android:text="View History"
        android:textColor="@color/biru"
        android:textSize="14sp"
        android:clickable="true"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/tvCurrentBalance" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

```

</androidx.cardview.widget.CardView>

<androidx.cardview.widget.CardView
    android:id="@+id/cardView3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:layout_marginTop="140dp"
    android:layout_marginRight="10dp"
    app:cardCornerRadius="26dp"
    app:cardElevation="4dp"
    app:cardPreventCornerOverlap="true"
    app:cardUseCompatPadding="true"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginStart="10dp"
        android:layout_marginEnd="10dp"
        android:padding="20dp">

        <TextView
            android:id="@+id/tvTextPercentage"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:fontFamily="@font/bold"
            android:text="Financial Percentages"
            android:textColor="@color/black"
            android:textSize="16sp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <androidx.constraintlayout.widget.ConstraintLayout
            android:id="@+id/constraintLayout4"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="26dp"
            android:layout_marginBottom="50dp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/tvTextPercentage">

        <ImageView
            android:id="@+id/imageView2"
            android:layout_width="10dp"
            android:layout_height="120dp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <ProgressBar
            android:id="@+id/income_progressBar"
            android:layout_width="120dp"
            android:layout_height="120dp"

```

```

        android:indeterminateOnly="false"
        android:progressDrawable="@drawable/circle_progress_income"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toStartOf="@+id/imageView2"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

        <TextView
            android:id="@+id/outcome_progressText"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:fontFamily="@font/bold"
            android:text="0%"

            app:layout_constraintBottom_toBottomOf="@+id/outcome_progressBar"
            app:layout_constraintEnd_toEndOf="@+id/outcome_progressBar"
            app:layout_constraintStart_toEndOf="@+id/imageView2"
            app:layout_constraintTop_toTopOf="@+id/outcome_progressBar" />

        <ProgressBar
            android:id="@+id/outcome_progressBar"
            android:layout_width="120dp"
            android:layout_height="120dp"
            android:indeterminateOnly="false"

            android:progressDrawable="@drawable/circle_progress_outcome"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"

            app:layout_constraintStart_toEndOf="@+id/imageView2"
            app:layout_constraintTop_toTopOf="parent" />

        <TextView
            android:id="@+id/income_progressText"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:fontFamily="@font/bold"
            android:text="0%"
            android:textColor="@color/hijau"

            app:layout_constraintBottom_toBottomOf="@+id/income_progressBar"
            app:layout_constraintEnd_toEndOf="@+id/income_progressBar"
            app:layout_constraintStart_toStartOf="@+id/income_progressBar"
            app:layout_constraintTop_toTopOf="@+id/income_progressBar" />
    </androidx.constraintlayout.widget.ConstraintLayout>

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"

```

```

app:layout_constraintTop_toBottomOf="@+id/constraintLayout4">

    <ImageView
        android:id="@+id/imageView5"
        android:layout_width="20dp"
        android:layout_height="20dp"
        android:background="@color/hijau"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="@font/semibold"
        android:text="Income"
        android:textColor="@color/black"
        app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toStartOf="@+id/imageView6"

app:layout_constraintStart_toEndOf="@+id/imageView5"
        app:layout_constraintTop_toTopOf="parent" />

    <ImageView
        android:id="@+id/imageView6"
        android:layout_width="20dp"
        android:layout_height="20dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <ImageView
        android:id="@+id/imageView7"
        android:layout_width="20dp"
        android:layout_height="20dp"
        android:background="@color/merah"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textVie8"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="12dp"
        android:layout_marginEnd="12dp"
        android:fontFamily="@font/semibold"
        android:text="Outcome"
        android:textColor="@color/black"
        app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toStartOf="@+id/imageView7"

app:layout_constraintStart_toEndOf="@+id/imageView6"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

```

        </androidx.constraintlayout.widget.ConstraintLayout>
    </androidx.cardview.widget.CardView>

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

<androidx.constraintlayout.widget.ConstraintLayout
    android:id="@+id/constraintLayout"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginStart="100dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <ImageView
        android:id="@+id/upperBox"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:alpha="0"
        android:background="@drawable/upper_box"
        android:translationX="300dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

<androidx.constraintlayout.widget.ConstraintLayout
    android:id="@+id/constraintLayout2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">

    <ImageView
        android:id="@+id/upperBox2"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:alpha="0"
        android:background="@drawable/upper_box2"
        android:translationX="200dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

<androidx.cardview.widget.CardView
    android:id="@+id/photoProfileContainer"
    android:layout_width="76dp"
    android:layout_height="76dp"
    app:cardCornerRadius="20dp"
    android:alpha="0"
    app:cardBackgroundColor="@color/white"
    app:layout_constraintBottom_toBottomOf="@+id/constraintLayout2"
    app:layout_constraintEnd_toStartOf="@+id/constraintLayout"

```

```

app:layout_constraintStart_toStartOf="@+id/constraintLayout2"
app:layout_constraintTop_toTopOf="@+id/constraintLayout2">

<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <androidx.cardview.widget.CardView
        android:layout_width="65dp"
        android:layout_height="65dp"
        android:alpha="1"
        app:cardBackgroundColor="@color/white"
        app:cardCornerRadius="15dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">
        <ImageView
            android:id="@+id/photoProfile"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:src="@drawable/ic_default_user_photos_01" />

    </androidx.cardview.widget.CardView>
</androidx.constraintlayout.widget.ConstraintLayout>

</androidx.cardview.widget.CardView>

<androidx.constraintlayout.widget.ConstraintLayout
    android:id="@+id/userInfoContainer"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="24dp"
    android:layout_marginEnd="42dp"
    android:alpha="0"
    android:translationX="300dp"
    app:layout_constraintEnd_toEndOf="@+id/constraintLayout"
    app:layout_constraintTop_toTopOf="parent">

    <TextView
        android:id="@+id/tvHello"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="@font/medium"
        android:text="Hello, "
        android:textColor="@color/white"
        android:textSize="16dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/usernameDashboard"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="@font/bold"
        android:text="Andrio Effendi"
        android:textColor="@color/white"
        android:textSize="22dp"
        app:layout_constraintEnd_toEndOf="parent"

```

```

        app:layout_constraintTop_toBottomOf="@+id/tvHello" />

</androidx.constraintlayout.widget.ConstraintLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

```

Fragment_history.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".History">

    <ImageView
        android:id="@+id/backgroundBoxHistory"
        android:layout_width="match_parent"
        android:layout_height="200dp"
        android:background="@drawable/bordered_box2"
        android:alpha="0"
        android:translationY="300dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

    <ImageView
        android:id="@+id/imageView13"
        android:layout_width="wrap_content"
        android:layout_height="110dp"
        android:background="@drawable/ic_wave_03"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

    <androidx.constraintlayout.widget.ConstraintLayout
        android:id="@+id/constraintLayout3"
        android:layout_width="300dp"
        android:layout_height="wrap_content"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <ImageView
            android:id="@+id/upperBox3"
            android:layout_width="match_parent"
            android:layout_height="100dp"
            android:alpha="1"
            android:background="@drawable/upper_box3"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <ImageView
            android:id="@+id/imageView8"
            android:layout_width="46dp"
            android:layout_height="46dp"

```



```

        android:layout_marginStart="40dp"
        android:src="@drawable/ic_history_13"
        app:layout_constraintBottom_toBottomOf="@+id/upperBox3"
        app:layout_constraintStart_toStartOf="@+id/upperBox3"
        app:layout_constraintTop_toTopOf="@+id/upperBox3"
        app:tint="@color/white" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="26dp"
    android:fontFamily="@font/bold"
    android:text="Transaction\nHistory"
    android:textColor="@color/white"
    android:textSize="22dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/imageView8"
    app:layout_constraintTop_toTopOf="@+id/upperBox3" />

</androidx.constraintlayout.widget.ConstraintLayout>

<androidx.cardview.widget.CardView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:cardCornerRadius="10dp"
    app:cardElevation="5dp"
    app:cardPreventCornerOverlap="true"
    app:cardUseCompatPadding="true"
    app:layout_constraintBottom_toBottomOf="@+id/constraintLayout3"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toEndOf="@+id/constraintLayout3"
    app:layout_constraintTop_toTopOf="parent">

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:padding="10dp">

        <com.google.android.material.button.MaterialButton
            android:layout_width="30dp"
            android:layout_height="30dp"
            android:background="@drawable/ic_dashboardicon_13"
            app:elevation="10dp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent"
            app:strokeColor="@color/merah" />

    </androidx.constraintlayout.widget.ConstraintLayout>
</androidx.cardview.widget.CardView>

<ScrollView
    android:layout_width="match_parent"
    android:layout_height="0dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/constraintLayout3">

```

```

<androidx.constraintlayout.widget.ConstraintLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content">

    <TextView
        android:id="@+id/tvIncome"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:fontFamily="@font/bold"
        android:text="Income"
        android:scaleX="0.5"
        android:scaleY="0.5"
        android:alpha="0"
        android:textColor="@color/black"
        android:textSize="22sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/recyclerIncome"
        android:layout_width="match_parent"
        android:layout_height="200dp"
        android:scaleX="0.5"
        android:scaleY="0.5"
        android:alpha="0"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvIncome" />

    <TextView
        android:id="@+id/tvOutcome"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:fontFamily="@font/bold"
        android:text="Outcome"
        android:scaleX="0.5"
        android:scaleY="0.5"
        android:alpha="0"
        android:textColor="@color/black"
        android:textSize="22sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/recyclerIncome"
    />

    <androidx.recyclerview.widget.RecyclerView
        android:id="@+id/recyclerOutcome"
        android:layout_width="match_parent"
        android:layout_height="200dp"
        android:scaleX="0.5"
        android:scaleY="0.5"
        android:alpha="0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvOutcome" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

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

Fragment_sign_in.xml

```
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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"
    tools:context=".SignIn">

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:padding="50sp">

        <TextView
            android:layout_marginTop="40sp"
            android:id="@+id/tvEmailSignIn"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:fontFamily="@font/bold"
            android:gravity="center"
            android:text="E-mail"
            android:textColor="@color/biru"
            android:textSize="20sp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <com.google.android.material.textfield.TextInputLayout
            android:id="@+id/editEmailSignInWrapper"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:gravity="center"
            app:boxStrokeWidth="0dp"
            app:boxStrokeWidthFocused="0dp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/tvEmailSignIn">

            <EditText
                android:id="@+id/editEmailSignIn"
                android:inputType="textEmailAddress"
                android:textSize="18sp"
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:layout_marginTop="10sp"
                android:paddingStart="18sp"
                android:paddingEnd="18sp"
                android:background="@drawable/bordered_edit_text"
                android:textColor="@color/biru"
                app:layout_constraintEnd_toEndOf="parent"
                app:layout_constraintStart_toStartOf="parent"
                app:layout_constraintTop_toBottomOf="@+id/tvEmailSignIn" />

        </com.google.android.material.textfield.TextInputLayout>
```

```

<TextView
    android:id="@+id/tvPasswordSignIn"
    android:layout_marginTop="20dp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:fontFamily="@font/bold"
    android:gravity="center"
    android:text="Password"
    android:textColor="@color/biru"
    android:textSize="20sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/editEmailSignInWrapper" />

<com.google.android.material.textfield.TextInputLayout
    android:id="@+id/editPasswordSignInWrapper"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    app:boxStrokeWidth="0dp"
    app:boxStrokeWidthFocused="0dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tvPasswordSignIn">

    <EditText
        android:id="@+id/editPasswordSignIn"
        android:textSize="18sp"
        android:inputType="textPassword"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="10sp"
        android:paddingStart="18sp"
        android:paddingEnd="18sp"
        android:background="@drawable/bordered_edit_text"
        android:textColor="@color/biru"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvPasswordSignIn"
    />

</com.google.android.material.textfield.TextInputLayout>

<com.google.android.material.button.MaterialButton
    android:layout_marginTop="30dp"
    android:id="@+id/btnSignIn"
    android:layout_width="match_parent"
    android:layout_height="60sp"
    android:fontFamily="@font/bold"
    android:text="Sign In"
    android:textSize="18sp"
    app:cornerRadius="18sp"

app:layout_constraintTop_toBottomOf="@+id/editPasswordSignInWrapper"
    tools:layout_editor_absoluteX="50sp" />

<TextView
    android:id="@+id/ForgetPassword"

```

```

        android:layout_marginTop="10dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:fontFamily="@font/semibold"
        android:gravity="center"
        android:text="Forgot Password ?"
        android:textColor="@color/biru"
        android:textSize="18sp"
        app:layout_constraintTop_toBottomOf="@+id/btnSignIn"
        tools:layout_editor_absoluteX="50dp" />

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

```

Fragment_sign_up.xml

```

<?xml version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    tools:context=".SignUp">

    <androidx.constraintlayout.widget.ConstraintLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:padding="50dp">

        <TextView
            android:id="@+id/tvEmailSignUp"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_marginTop="40dp"
            android:fontFamily="@font/bold"
            android:gravity="center"
            android:text="E-mail"
            android:textColor="@color/biru"
            android:textSize="20sp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

        <com.google.android.material.textfield.TextInputLayout
            android:id="@+id/editEmailSignUpWrapper"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:gravity="center"
            app:boxStrokeWidth="0dp"
            app:boxStrokeWidthFocused="0dp"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toBottomOf="@+id/tvEmailSignUp">

            <EditText
                android:id="@+id/editEmailSignUp"
                android:inputType="textEmailAddress"
                android:textSize="18sp"
                android:layout_width="match_parent"
                android:layout_height="match_parent"

```

```

        android:layout_marginTop="10sp"
        android:paddingStart="18sp"
        android:paddingEnd="18sp"
        android:background="@drawable/bordered_edit_text"
        android:textColor="@color/biru"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvEmailSignUp" />
</com.google.android.material.textfield.TextInputLayout>

<TextView
    android:id="@+id/tvUsernameSignUp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:fontFamily="@font/bold"
    android:gravity="center"
    android:layout_marginTop="10dp"
    android:text="Username"
    android:textColor="@color/biru"
    android:textSize="20sp"

app:layout_constraintTop_toBottomOf="@+id/editEmailSignUpWrapper" />

<com.google.android.material.textfield.TextInputLayout
    android:id="@+id/editUsernameSignUpWrapper"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    app:boxStrokeWidth="0dp"
    app:boxStrokeWidthFocused="0dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/tvUsernameSignUp">

    <EditText
        android:id="@+id/editUsernameSignUp"
        android:inputType="textPersonName"
        android:textSize="18sp"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginTop="10sp"
        android:paddingStart="18sp"
        android:paddingEnd="18sp"
        android:background="@drawable/bordered_edit_text"
        android:textColor="@color/biru"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvUsernameSignUp"
    />

</com.google.android.material.textfield.TextInputLayout>

<TextView
    android:id="@+id/tvPasswordSignUp"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:fontFamily="@font/bold"
    android:gravity="center"
    android:layout_marginTop="10dp"
    android:text="Password"
    android:textColor="@color/biru"

```

```

        android:textSize="20sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/editUsernameSignUpWrapper" />

    <com.google.android.material.textfield.TextInputLayout
        android:id="@+id/editPasswordSignUpWrapper"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        app:boxStrokeWidth="0dp"
        app:boxStrokeWidthFocused="0dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tvPasswordSignUp">

        <EditText
            android:id="@+id/editPasswordSignUp"
            android:inputType="textPassword"
            android:textSize="18sp"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_marginTop="10sp"
            android:paddingStart="18sp"
            android:paddingEnd="18sp"
            android:background="@drawable/bordered_edit_text"
            android:textColor="@color/biru"
            app:layout_constraintTop_toBottomOf="@+id/tvPasswordSignUp"
        />

    </com.google.android.material.textfield.TextInputLayout>

    <com.google.android.material.button.MaterialButton
        android:layout_width="match_parent"
        android:id="@+id/btnSignUp"
        android:layout_height="60dp"
        android:fontFamily="@font/bold"
        android:text="Sign Up"
        android:textColor="@color/white"
        android:textSize="18sp"
        app:cornerRadius="18dp"
        android:layout_marginTop="30dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toBottomOf="@+id/editPasswordSignUpWrapper" />

    </androidx.constraintlayout.widget.ConstraintLayout>

</FrameLayout>

```

Google_services.json

```

{
  "project_info": {
    "project_number": "436512616830",
    "project_id": "small-change-ac678",
    "storage_bucket": "small-change-ac678.appspot.com"
  }
}

```

```

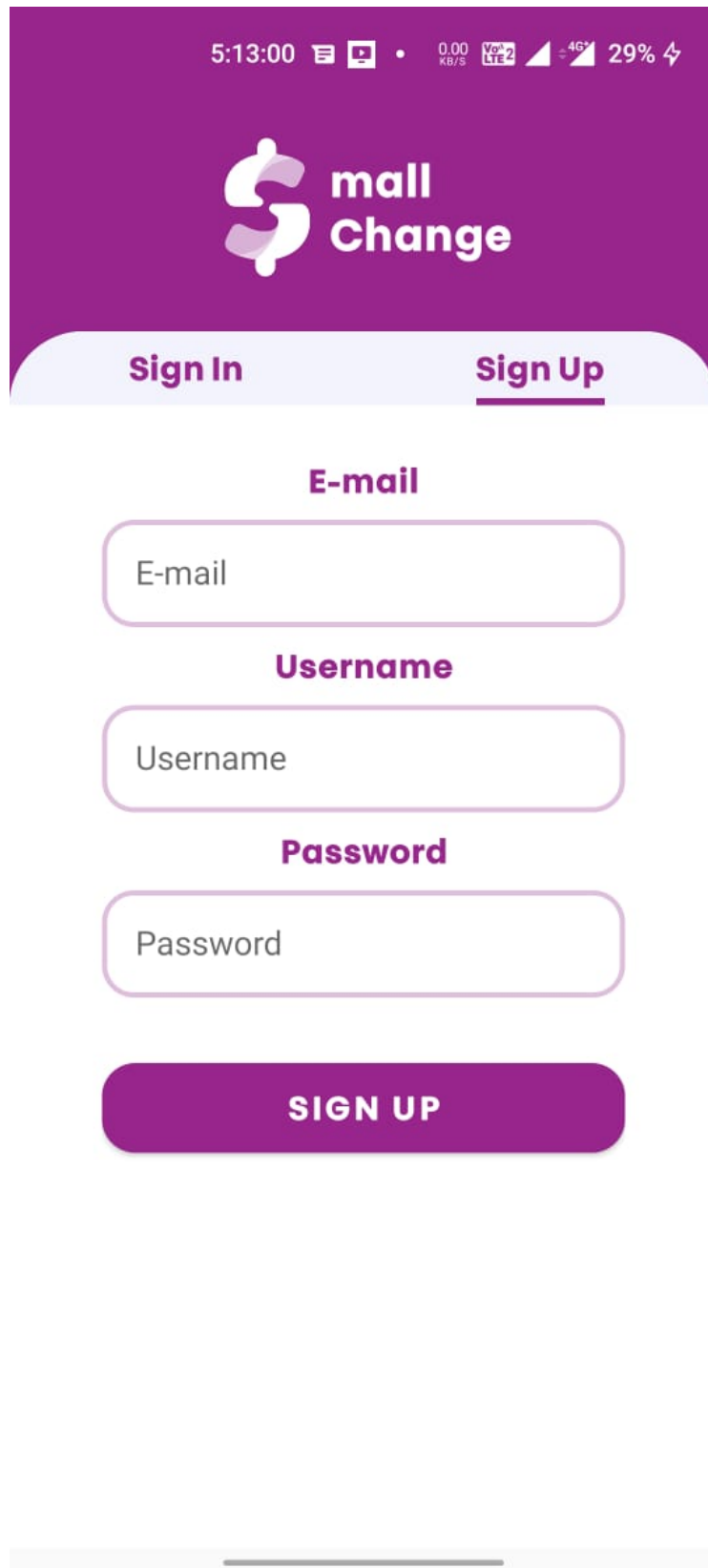
},
"client": [
  {
    "client_info": {
      "mobilesdk_app_id": "1:436512616830:android:c0630a6c1b0a51664d032f",
      "android_client_info": {
        "package_name": "id.ac.umh.effendi.andrio.smallchange"
      }
    },
    "oauth_client": [
      {
        "client_id": "436512616830-
dlodqmm1j6bf72ng5r00s03cbp4k83n3.apps.googleusercontent.com",
        "client_type": 3
      }
    ],
    "api_key": [
      {
        "current_key": "AIzaSyChprqRBcaXwOxTw6eOMPA6PsJBb3kj4q4"
      }
    ],
    "services": {
      "appinvite_service": {
        "other_platform_oauth_client": [
          {
            "client_id": "436512616830-
dlodqmm1j6bf72ng5r00s03cbp4k83n3.apps.googleusercontent.com",
            "client_type": 3
          }
        ]
      }
    }
  }
],
"configuration_version": "1"
}

```


Screenshot



Fig 1: Splash Screen



The image shows a mobile application interface for 'mail Change'. At the top, there is a status bar with the time 5:13:00, battery level at 29%, and network status. Below the status bar is a purple header with the 'mail Change' logo, which consists of a stylized white 'S' and the text 'mail Change'. Under the header, there are two buttons: 'Sign In' and 'Sign Up', with 'Sign Up' being the active option. The main form area has a light purple background and contains three input fields labeled 'E-mail', 'Username', and 'Password'. Each field has a corresponding label above it. At the bottom of the form is a large purple button labeled 'SIGN UP'. The entire interface is framed by a white border.

5:13:00 0.00 KB/S VoLTE 4G+ 29%

mail Change

Sign In **Sign Up**

E-mail

E-mail

Username

Username

Password

Password

SIGN UP

Fig 2 : SignUp Screen

The image shows a mobile application interface for 'mall Change'. At the top, there is a status bar with the time 5:12:55, signal strength, and battery level at 29%. Below the status bar is a purple header with the 'mall Change' logo, which consists of a stylized white 'S' and the text 'mall Change'. Under the header, there are two tabs: 'Sign In' (which is selected and underlined) and 'Sign Up'. The main content area is white and contains the following elements: a label 'E-mail' in bold purple text, a rounded rectangular input field with the placeholder text 'E-mail', a label 'Password' in bold purple text, another rounded rectangular input field with the placeholder text 'Password', a large purple button with the text 'SIGN IN' in white, and a link 'Forgot Password ?' in purple text. At the bottom of the screen, there is a thin horizontal line representing the home indicator.

Fig 3 : SignIn Screen

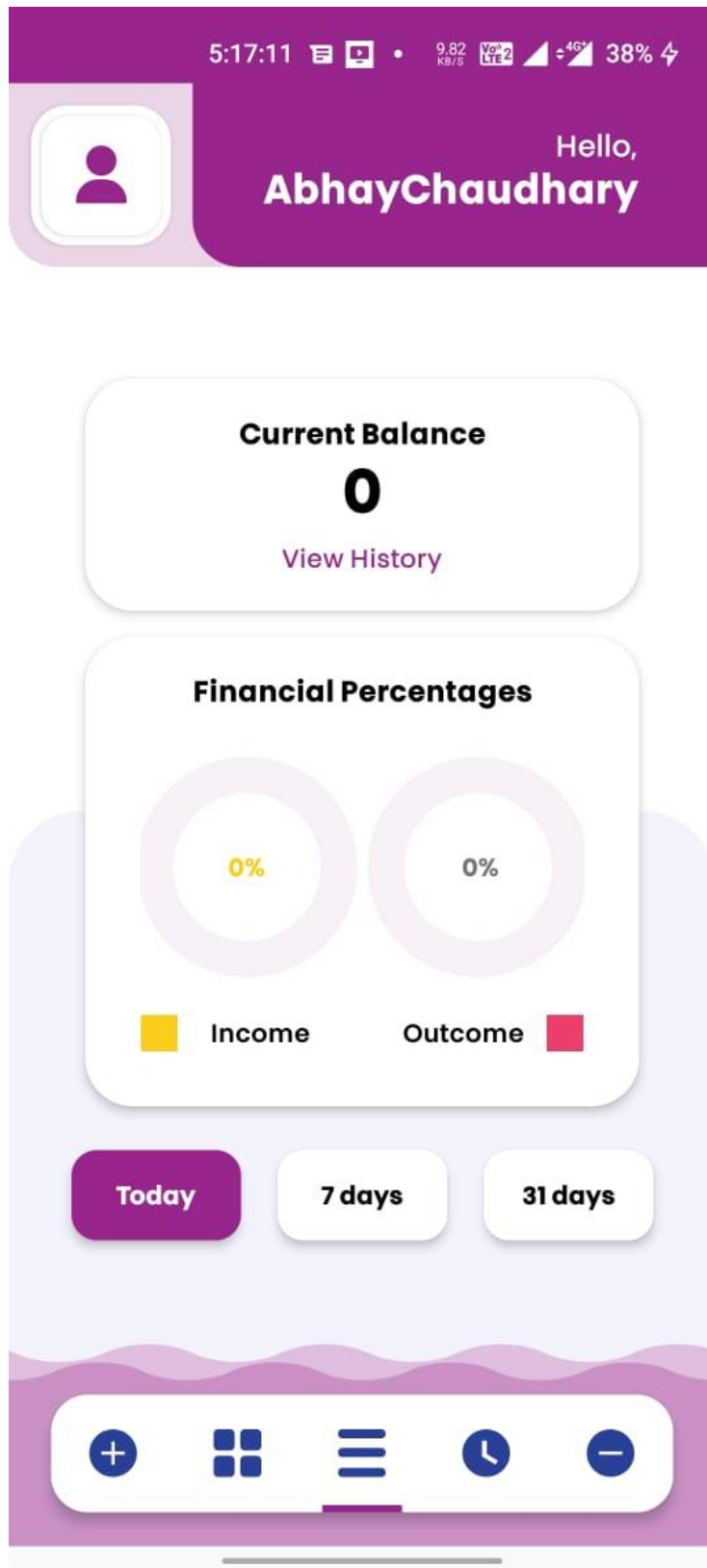


Fig 4 : Initial Dashboard upon SignUp

5:21:45 0.00 KB/S VoLTE 4G+ 47%

Income

Show All

Amount

Transaction Amount

Name

Transaction Name

(Max 16 characters)

Note

Transaction Note

(Max 30 characters)

Save

+

+ -

Fig 5 : Income/Outcome Fields

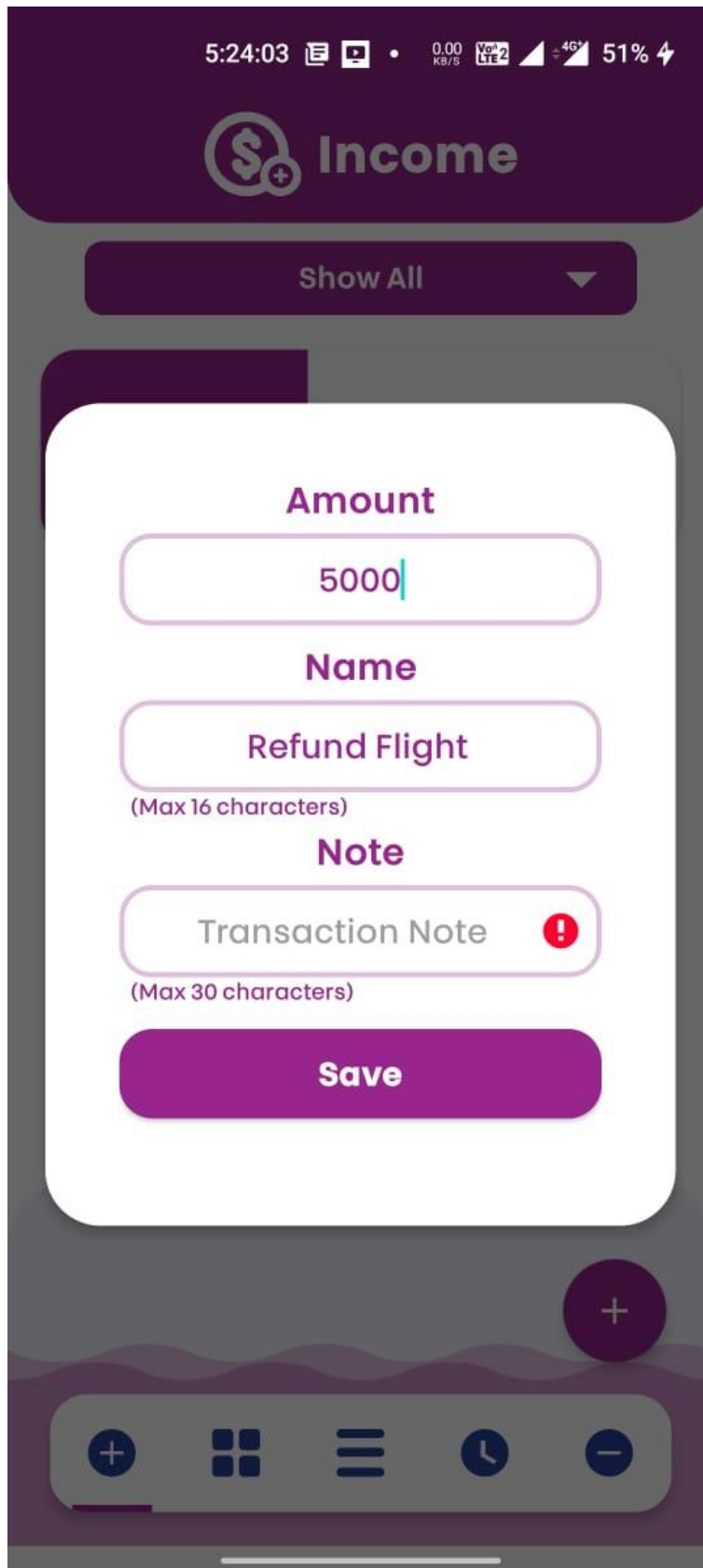


Fig 6 : Income/Outcome Properties

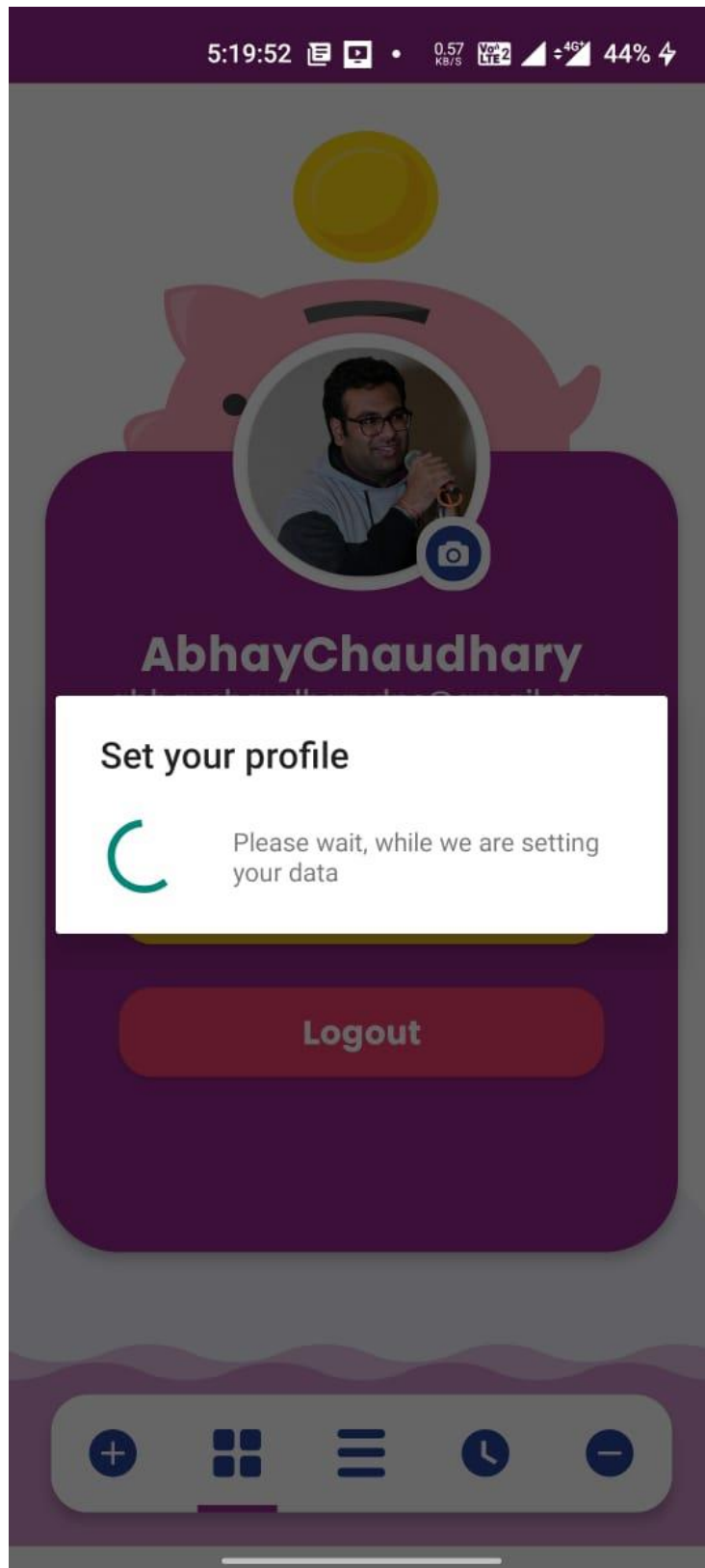


Fig 7 : Profile Pic SetUp

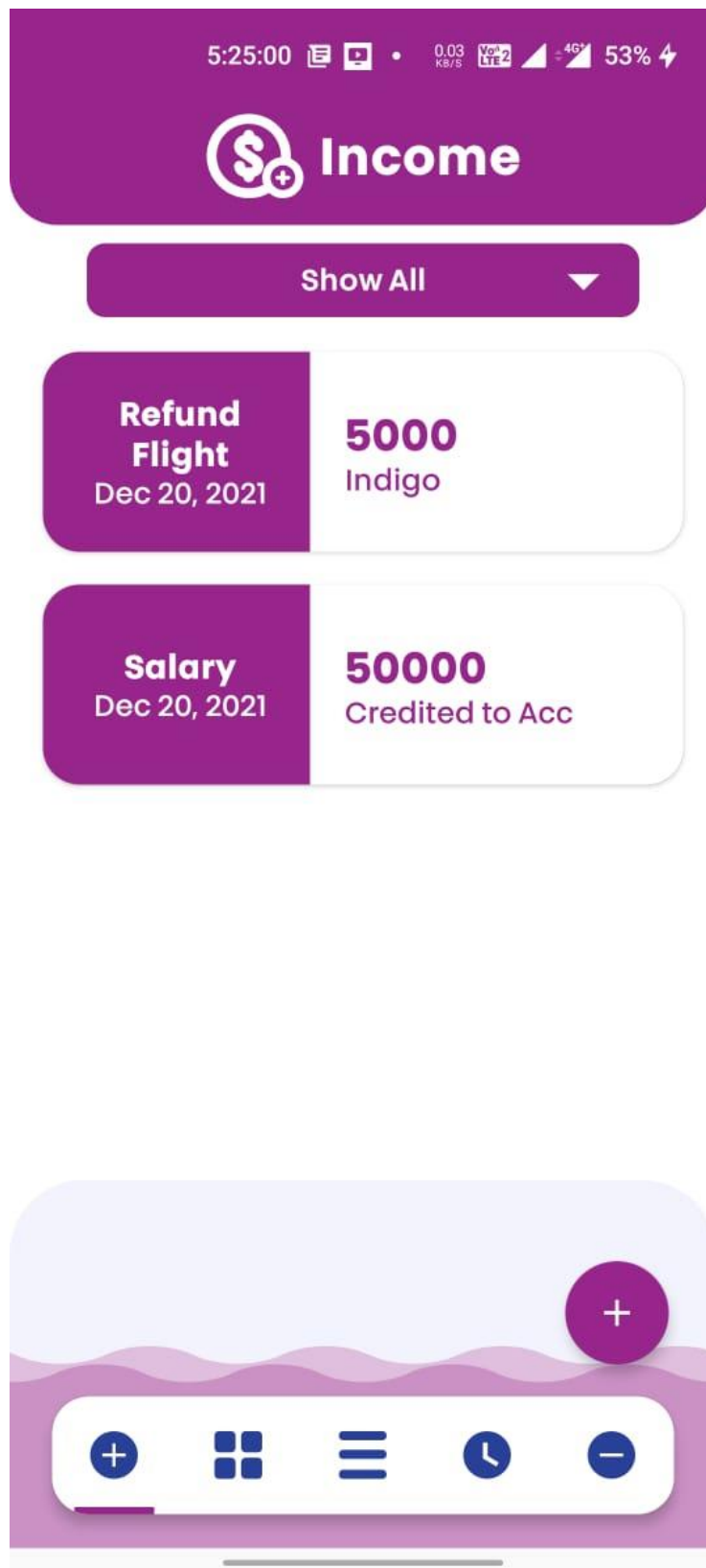


Fig 8 : Income Summary



Fig 9 : Outcome Summary

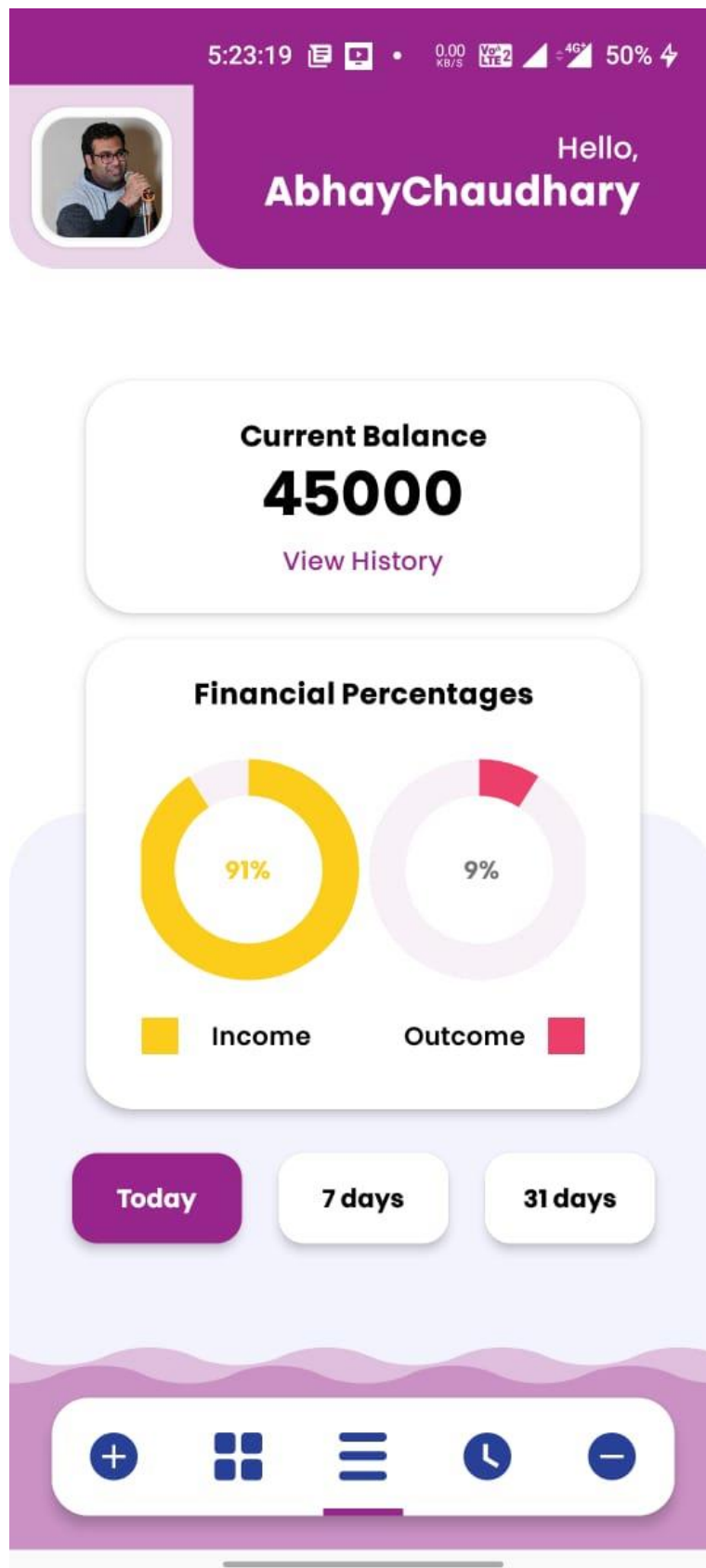


Fig 10 : Dashboard

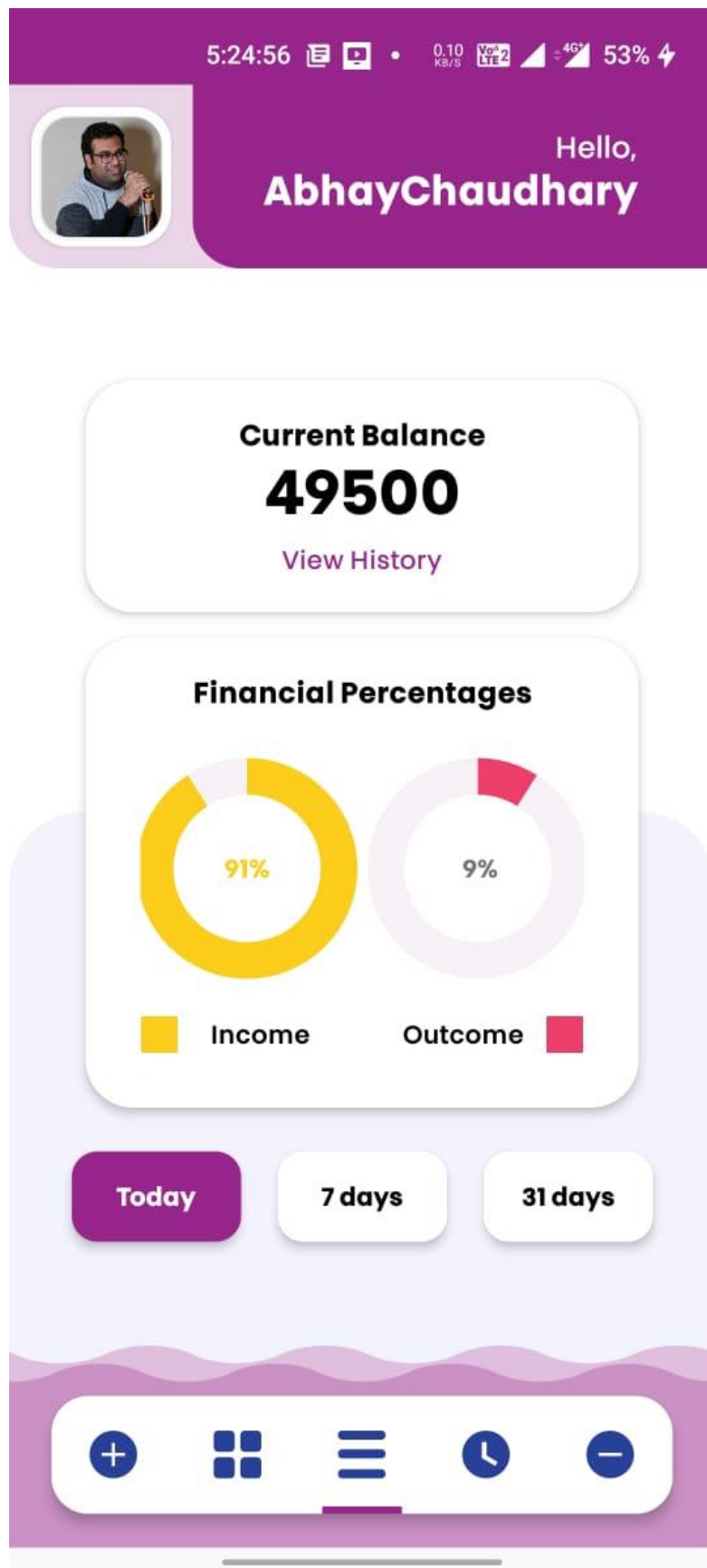


Fig 11 : Dashboard 2



Fig 12 : Transaction History



Fig 13 : Transaction History 2

Reset your password for Small Change ➤ Inbox x



noreply@small-change-4afeb.firebaseio.com

to me ▾

5:14 PM (41 minutes ago) ☆ ↶ ⋮

Hello,

Follow this link to reset your Small Change password for your [abhay](#) [@gmail.com](#) account.

https://small-change-4afeb.firebaseio.com/_/auth/action?mode=resetPassword&oobCode=HdlRaVfN7ULVKzFFSzm0HelnLs4RKcb92miXb8G05eEAAAF916h_UQ&apiKey=AlzaSyDsXSZDQPKk_sasDwRIEydSveQxuLkmo7A&lang=en

If you didn't ask to reset your password, you can ignore this email.

Thanks,

Your Small Change team

↶ Reply

➦ Forward

Fig 14 : Password Reset