LAPORAN PROJECT MOBILE PROGRAMMING
STUDENT ATTENDANCE APPLICATION

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I. Source Code

A. SplashActivity.java

student-attendance / app / src / main / java / com / vinaekal / absensimahasiswa / SplashActivity.java

vinaekalayalani add log lifecycle at all page activity

Code Blame 69 lines (58 loc) · 1.93 KB

```java
package com.vinaekal.absensimahasiswa;

import android.content.Intent;
import android.os.Bundle;
import android.os.Handler;
import android.util.Log;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class SplashActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_splash);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) -> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);
            return insets;
        });

        // Log lifecycle
        Log.d("Lifecycle", "onCreate: SplashActivity");

        new Handler().postDelayed(new Runnable() {
            @Override
            public void run() {
                Intent intent = new Intent(SplashActivity.this, LoginActivity.class);
                startActivity(intent);
                finish();
            }
        }, 3000);
    }

    @Override
    protected void onStart() {
        super.onStart();
        Log.d("Lifecycle", "onStart: SplashActivity");
    }

    @Override
    protected void onResume() {
        super.onResume();
        Log.d("Lifecycle", "onResume: SplashActivity");
    }

    @Override
    protected void onPause() {
        super.onPause();
        Log.d("Lifecycle", "onPause: SplashActivity");
    }

    @Override
    protected void onStop() {
        super.onStop();
        Log.d("Lifecycle", "onStop: SplashActivity");
    }

    @Override
    protected void onDestroy() {
        super.onDestroy();
        Log.d("Lifecycle", "onDestroy: SplashActivity");
    }
}
```

B. activity_splash.xml

student-attendance / app / src / main / res / layout / **activity_splash.xml**

vinaekalayalani initial commit

Code | Blame | 30 lines (28 loc) · 1.29 KB

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

        <LinearLayout
            android:id="@+id/splashLayout"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:orientation="vertical"
            app:layout_constraintTop_toTopOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintBottom_toBottomOf="parent">

                <ImageView
                    android:id="@+id/logoSplash"
                    android:layout_width="120dp"
                    android:layout_height="120dp"
                    android:layout_gravity="center"
                    android:src="@drawable/logoupb"
                    android:contentDescription="Logo"
                    android:layout_marginBottom="16dp" />
        </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

C. LoginActivity.java

student-attendance / app / src / main / java / com / vinaekal / absensimahasiswa / **LoginActivity.java**

vinaekalayalani initial commit

Code | Blame | 84 lines (70 loc) · 2.66 KB

```java
package com.vinaekal.absensimahasiswa;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class LoginActivity extends AppCompatActivity {

    EditText editUsername, editPassword;
    Button buttonLogin;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_login);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) -> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);
            return insets;
        });

        // Log lifecycle
        Log.d("Lifecycle", "onCreate: LoginActivity");

        editUsername = findViewById(R.id.editUsername);
        editPassword = findViewById(R.id.editPassword);
        buttonLogin = findViewById(R.id.buttonLogin);

        buttonLogin.setOnClickListener(view -> {
            String username = editUsername.getText().toString().trim();
            String password = editPassword.getText().toString().trim();

            if (username.isEmpty() || password.isEmpty()) {
                Toast.makeText(this, "Please fill all fields", Toast.LENGTH_SHORT).show();
            } else if (username.equals("312410261") && password.equals("123456")) {
                Toast.makeText(this, "Login success!", Toast.LENGTH_SHORT).show();
                startActivity(new Intent(this, DashboardActivity.class));
                finish();
            } else {
                Toast.makeText(this, "Invalid Credential", Toast.LENGTH_SHORT).show();
            }
        });
    }

    @Override
    protected void onStart() {
        super.onStart();
        Log.d("Lifecycle", "onStart: LoginActivity");
    }

    @Override
    protected void onResume() {
        super.onResume();
        Log.d("Lifecycle", "onResume: LoginActivity");
    }

    @Override
    protected void onPause() {
        super.onPause();
        Log.d("Lifecycle", "onPause: LoginActivity");
    }

    @Override
    protected void onStop() {
        super.onStop();
        Log.d("Lifecycle", "onStop: LoginActivity");
    }

    @Override
    protected void onDestroy() {
        super.onDestroy();
        Log.d("Lifecycle", "onDestroy: LoginActivity");
    }
}
```

D. activity_login.xml

student-attendance / app / src / main / res / layout / **activity_login.xml**

vinaekalayalani initial commit

Code | Blame | 85 lines (78 loc) · 3.21 KB

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#0C356A"
    tools:context=".LoginActivity">

    <LinearLayout
        android:id="@+id/loginLayout"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_margin="24dp"
        android:orientation="vertical"
        android:padding="24dp"
        android:background="@drawable/bg_login_card"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintBottom_toBottomOf="parent">

        <ImageView
            android:id="@+id/logoLogin"
            android:layout_width="120dp"
            android:layout_height="120dp"
            android:layout_gravity="center"
            android:src="@drawable/logoupb"
            android:contentDescription="Logo"
            android:layout_marginBottom="16dp"/>

        <TextView
            android:id="@+id/textTitle"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Student Attendance"
            android:textSize="20dp"
            android:textStyle="bold"
            android:textColor="#0C356A"
            android:textAlignment="center"
            android:layout_marginBottom="4dp"/>

        <TextView
            android:id="@+id/textDescription"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Please login with your credentials."
            android:textSize="15dp"
            android:textColor="#555555"
            android:textAlignment="center"
            android:layout_marginBottom="16dp"/>

        <EditText
            android:id="@+id/editUsername"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:inputType="text"
            android:hint="Username"
            android:background="@drawable/bg_edittext"
            android:padding="12dp"
            android:textColor="#012A6A"
            android:textColorHint="#90A4AE"
            android:layout_marginBottom="12dp"/>

        <EditText
            android:id="@+id/editPassword"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:inputType="textPassword"
            android:hint="Password"
            android:background="@drawable/bg_edittext"
            android:padding="12dp"
            android:textColor="#012A6A"
            android:textColorHint="#90A4AE"
            android:layout_marginBottom="20dp"/>

        <Button
            android:id="@+id/buttonLogin"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Login"
            android:backgroundTint="#FFC436"/>
    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

E. DashboardActivity.java

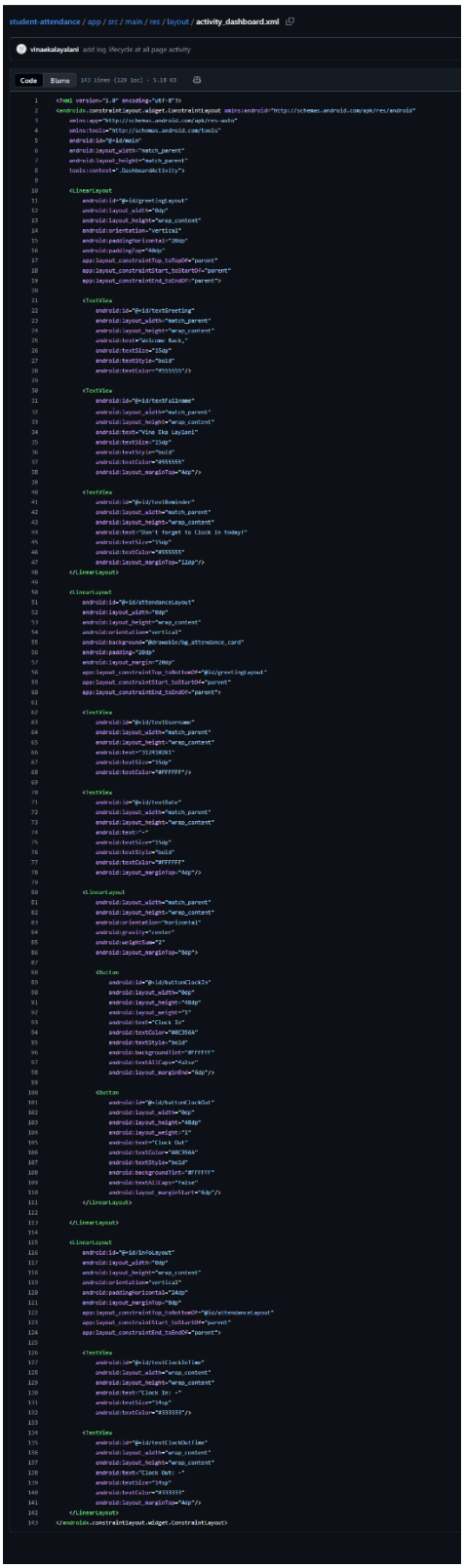
udent-attendance / app / src / main / java / com / vinaekal / absensimahasiswa / **DashboardActivity.java**

vinaekalayalani add log lifecycle at all page activity

Code Blame 115 lines (95 loc) · 3.63 KB

```java
package com.vinaekal.absensimahasiswa;

import android.os.Bundle;
import android.util.Log;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Locale;

public class DashboardActivity extends AppCompatActivity {

    TextView textGreeting, textDate, textClockInTime, textClockOutTime;
    Button buttonClockIn, buttonClockOut;

    private String clockInTime = "-", clockOutTime = "-";

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_dashboard);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) -> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);
            return insets;
        });

        // Log lifecycle
        Log.d("Lifecycle", "onCreate: DashboardActivity");

        textGreeting = findViewById(R.id.textGreeting);
        textDate = findViewById(R.id.textDate);
        textClockInTime = findViewById(R.id.textClockInTime);
        textClockOutTime = findViewById(R.id.textClockOutTime);
        buttonClockIn = findViewById(R.id.buttonClockIn);
        buttonClockOut = findViewById(R.id.buttonClockOut);

        updateGreeting();
        updateDateTime();

        buttonClockIn.setOnClickListener(v -> {
            clockInTime = getCurrentTime();
            textClockInTime.setText("Clock In: " + clockInTime);
            Toast.makeText(this, "Clocked In at " + clockInTime, Toast.LENGTH_SHORT).show();
        });

        buttonClockOut.setOnClickListener(v -> {
            clockOutTime = getCurrentTime();
            textClockOutTime.setText("Clock Out: " + clockOutTime);
            Toast.makeText(this, "Clocked Out at " + clockOutTime, Toast.LENGTH_SHORT).show();
        });
    }

    @Override
    protected void onStart() {
        super.onStart();
        Log.d("Lifecycle", "onStart: DashboardActivity");
    }

    @Override
    protected void onResume() {
        super.onResume();
        Log.d("Lifecycle", "onResume: DashboardActivity");
    }

    @Override
    protected void onPause() {
        super.onPause();
        Log.d("Lifecycle", "onPause: DashboardActivity");
    }

    @Override
    protected void onStop() {
        super.onStop();
        Log.d("Lifecycle", "onStop: DashboardActivity");
    }

    @Override
    protected void onDestroy() {
        super.onDestroy();
        Log.d("Lifecycle", "onDestroy: DashboardActivity");
    }

    private void updateGreeting() {
        Calendar calendar = Calendar.getInstance();
        int hour = calendar.get(Calendar.HOUR_OF_DAY);
        String greeting;
        if (hour < 12) {
            greeting = "Good Morning,";
        } else if (hour < 18) {
            greeting = "Good Afternoon,";
        } else {
            greeting = "Good Evening,";
        }
        textGreeting.setText(greeting);
    }

    private void updateDateTime() {
        String date = new SimpleDateFormat("dd MMMM yyyy | hh:mm a", Locale.getDefault()).format(Calendar.getInstance().getTime());
        textDate.setText(date);
    }

    private String getCurrentTime() {
        return new SimpleDateFormat("HH:mm:ss", Locale.getDefault()).format(Calendar.getInstance().getTime());
    }
}
```

F. activity_dashboard.xml



student-attendance / app / src / main / res / layout / activity_dashboard.xml

vinaekalayalani add log lifecycle at all page activity

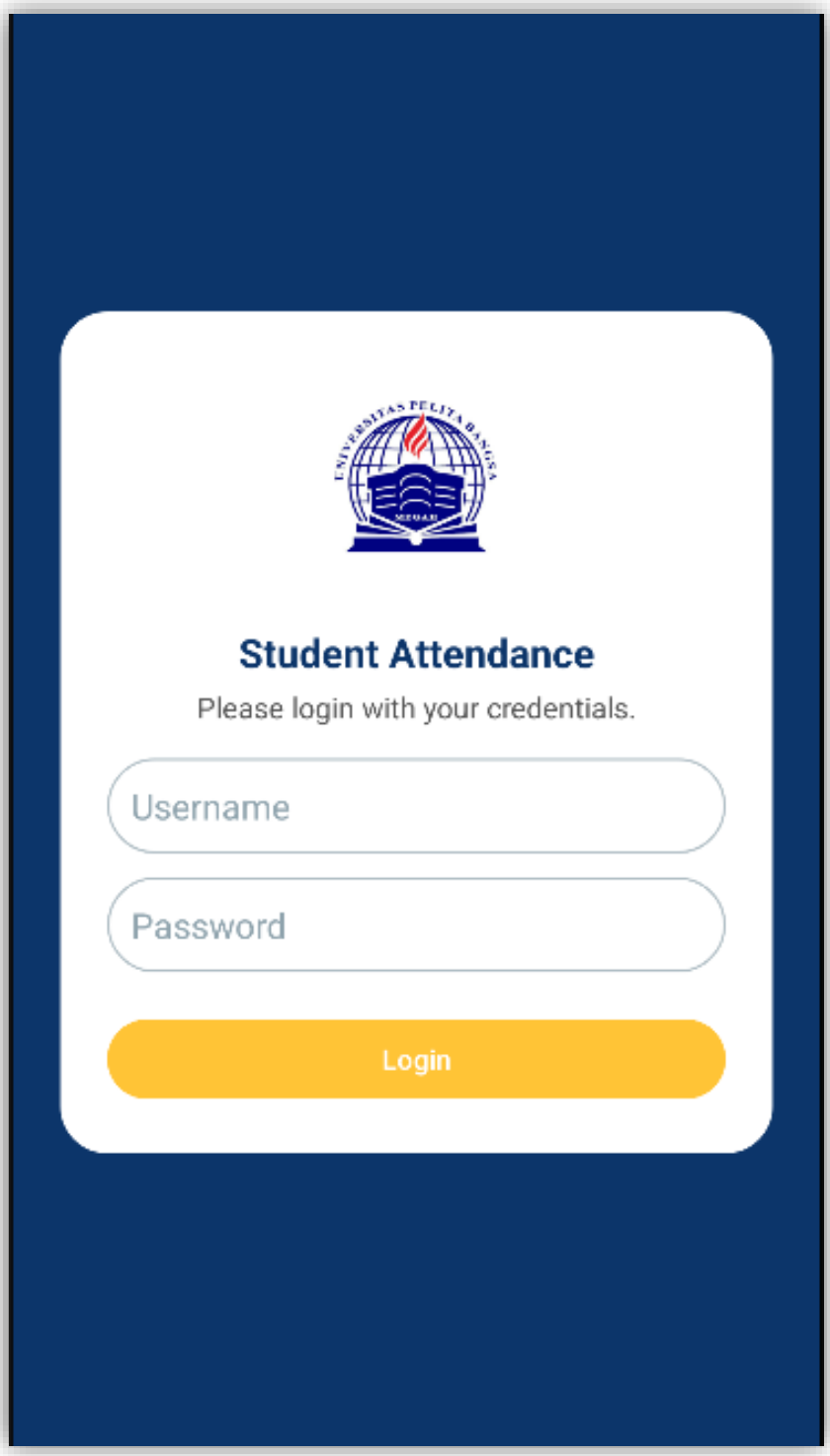
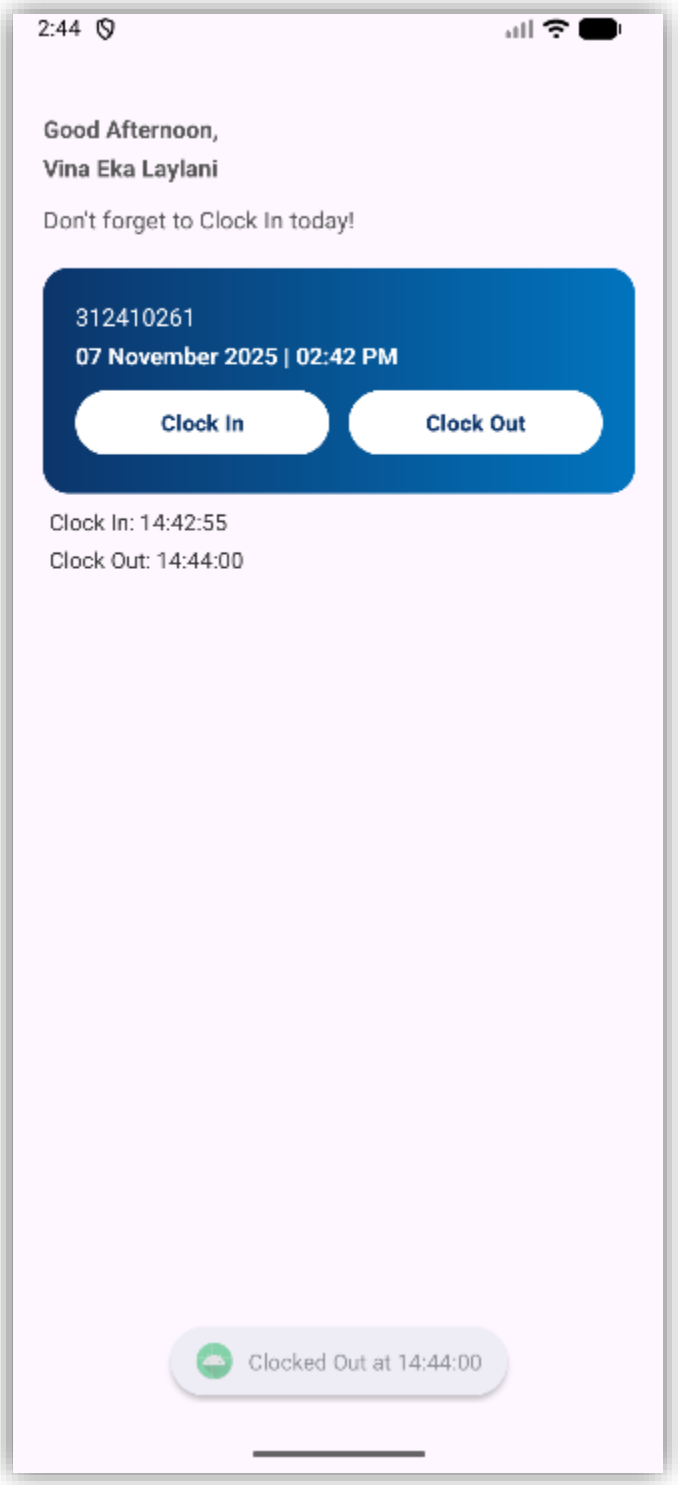
Code Blame 143 lines (129 loc) · 5.18 KB

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

    <LinearLayout
        android:id="@+id/greetingLayout"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:paddingHorizontal="20dp"
        android:paddingTop="40dp"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent">

        <TextView
            android:id="@+id/textGreeting"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Welcome Back,"
            android:textSize="16sp"
            android:textStyle="bold"
            android:textColor="#555555"/>

        <TextView
            android:id="@+id/textFullname"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Vina Ika Layani"
            android:textSize="32sp"
            android:textStyle="bold"
            android:textColor="#555555"
            android:layout_marginTop="4dp"/>

        <TextView
            android:id="@+id/textReminder"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Don't forget to Clock in today!"
            android:textSize="14sp"
            android:textColor="#555555"
            android:layout_marginTop="120p"/>
    </LinearLayout>

    <LinearLayout
        android:id="@+id/attendanceLayout"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:background="@drawable/bg_attendance_card"
        android:padding="20dp"
        android:layout_margin="20dp"
        app:layout_constraintTop_toBottomOf="@id/greetingLayout"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent">

        <TextView
            android:id="@+id/textUsername"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="312410281"
            android:textSize="14sp"
            android:textColor="#FFFFFF"/>

        <TextView
            android:id="@+id/textDate"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="-"
            android:textSize="14sp"
            android:textStyle="bold"
            android:textColor="#FFFFFF"
            android:layout_marginTop="4dp"/>

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="horizontal"
            android:gravity="center"
            android:weightSum="2"
            android:layout_marginTop="8dp">

            <Button
                android:id="@+id/buttonClockIn"
                android:layout_width="0dp"
                android:layout_height="48dp"
                android:layout_weight="1"
                android:text="Clock In"
                android:textColor="#0C356A"
                android:textStyle="bold"
                android:backgroundTint="#FFFFFF"
                android:textAllCaps="false"
                android:layout_marginEnd="8dp"/>

            <Button
                android:id="@+id/buttonClockOut"
                android:layout_width="0dp"
                android:layout_height="48dp"
                android:layout_weight="1"
                android:text="Clock Out"
                android:textColor="#0C356A"
                android:textStyle="bold"
                android:backgroundTint="#FFFFFF"
                android:textAllCaps="false"
                android:layout_marginStart="8dp"/>
        </LinearLayout>

    </LinearLayout>

    <LinearLayout
        android:id="@+id/infoLayout"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:paddingHorizontal="24dp"
        android:layout_marginTop="8dp"
        app:layout_constraintTop_toBottomOf="@id/attendanceLayout"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintEnd_toEndOf="parent">

        <TextView
            android:id="@+id/textClockInTime"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Clock In: -"
            android:textSize="14sp"
            android:textColor="#333333"/>

        <TextView
            android:id="@+id/textClockOutTime"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Clock Out: -"
            android:textSize="14sp"
            android:textColor="#333333"
            android:layout_marginTop="4dp"/>
    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

II. Screenshot Pages

A. Splash Page

B. Login Page


Student Attendance
Please login with your credentials.
Username
Password
Login

C. Dashboard Page