

## **activity\_register.xml**

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:gravity="center"
    android:padding="20dp"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <EditText
        android:id="@+id/etNewUsername"
        android:hint="Student ID"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <EditText
        android:id="@+id/etNewPassword"
        android:hint="Password"
        android:inputType="textPassword"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <Button
        android:id="@+id/btnRegister"
        android:text="Register"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
```

# RegisterActivity.java

```
package com.example.attendanceapp;

import android.content.Intent;
import android.os.Bundle;
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 RegisterActivity extends AppCompatActivity {

    EditText etNewUsername, etNewPassword;
    Button btnRegister;
    DBHelper db;

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

        etNewUsername = findViewById(R.id.etNewUsername);
        etNewPassword = findViewById(R.id.etNewPassword);
        btnRegister = findViewById(R.id.btnRegister);

        db = new DBHelper(this);

        btnRegister.setOnClickListener(v -> {
            String user = etNewUsername.getText().toString().trim();
            String pass = etNewPassword.getText().toString().trim();
        });
    }
}
```

```

        boolean success = db.registerUser(user, pass);

        if (success) {
            Toast.makeText(this, "Registration Successful", Toast.LENGTH_SHORT).show();
            startActivity(new Intent(this, LoginActivity.class));
            finish();
        } else {
            Toast.makeText(this, "User already exists", Toast.LENGTH_SHORT).show();
        }
    });
}
}

```

## 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:id="@+id/main"
    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_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

## MainActivity.java

```
package com.example.attendanceapp;

import android.os.Bundle;

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 MainActivity extends AppCompatActivity {

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

## Activity\_login.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:gravity="center"
```

```
    android:padding="20dp"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <EditText
        android:id="@+id/etUsername"
        android:hint="Student ID"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <EditText
        android:id="@+id/etPassword"
        android:hint="Password"
        android:inputType="textPassword"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <Button
        android:id="@+id/btnLogin"
        android:text="Login"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <TextView
        android:id="@+id/tvRegister"
        android:text="New Student? Register"
        android:textColor="@android:color/holo_blue_dark"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
</LinearLayout>
```

## LoginActivity.java

```
package com.example.attendanceapp;

import android.content.Intent;
import android.os.Bundle;
import android.widget.Button;
```

```
import android.widget.EditText;
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;

public class LoginActivity extends AppCompatActivity {

    EditText etUsername, etPassword;
    Button btnLogin;
    TextView tvRegister;
    DBHelper db;

    public static String loggedUser = "";

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

        etUsername = findViewById(R.id.etUsername);
        etPassword = findViewById(R.id.etPassword);
        btnLogin = findViewById(R.id.btnLogin);
        tvRegister = findViewById(R.id.tvRegister);

        db = new DBHelper(this);

        btnLogin.setOnClickListener(v -> {
            String user = etUsername.getText().toString().trim();
            String pass = etPassword.getText().toString().trim();

            if (db.checkLogin(user, pass)) {
                loggedUser = user;
                startActivity(new Intent(this, AttendanceActivity.class));
            } else {
                Toast.makeText(this, "Invalid Login", Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```

```
});

tvRegister.setOnClickListener(v ->
    startActivity(new Intent(this, RegisterActivity.class))
);
}

}
```

## activity\_attendance.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:gravity="center"
    android:padding="20dp"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <TextView
        android:id="@+id/tvStatus"
        android:text="Attendance Not Marked"
        android:textSize="18sp"
        android:paddingBottom="20dp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>

    <Button
        android:id="@+id/btnMark"
        android:text="Mark Attendance"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <Button
        android:id="@+id/btnLogout"
        android:text="Logout"
        android:layout_marginTop="10dp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>

```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
</LinearLayout>
```

## AttendanceActivity.java

```
package com.example.attendanceapp;

import android.content.Intent;
import android.os.Bundle;
import android.widget.Button;
import android.widget.TextView;

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 AttendanceActivity extends AppCompatActivity {

    TextView tvStatus;
    Button btnMark, btnLogout;
    DBHelper db;

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

        tvStatus = findViewById(R.id.tvStatus);
        btnMark = findViewById(R.id.btnMark);
        btnLogout = findViewById(R.id.btnLogout);

        db = new DBHelper(this);
    }
}
```

```

String today = java.time.LocalDate.now().toString();
String user = LoginActivity.loggedUser;

if (db.isAttendanceMarked(user, today)) {
    tvStatus.setText("Attendance Already Marked");
    btnMark.setEnabled(false);
}

btnMark.setOnClickListener(v -> {
    boolean marked = db.markAttendance(user, today);
    if (marked) {
        tvStatus.setText("Attendance Marked Successfully");
        btnMark.setEnabled(false);
    } else {
        tvStatus.setText("Attendance Already Marked");
    }
});

btnLogout.setOnClickListener(v -> {
    startActivity(new Intent(this, LoginActivity.class));
    finish();
});
}
}

```

## DBHelper.java

```

package com.example.attendanceapp;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

```

```
public class DBHelper extends SQLiteOpenHelper {

    private static final String DB_NAME = "AttendanceDB";
    private static final int DB_VERSION = 1;

    public DBHelper(Context context) {
        super(context, DB_NAME, null, DB_VERSION);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {

        db.execSQL(
            "CREATE TABLE users (" +
            "id INTEGER PRIMARY KEY AUTOINCREMENT," +
            "username TEXT UNIQUE," +
            "password TEXT)"
        );

        db.execSQL(
            "CREATE TABLE attendance (" +
            "id INTEGER PRIMARY KEY AUTOINCREMENT," +
            "username TEXT," +
            "date TEXT," +
            "status TEXT)"
        );
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        db.execSQL("DROP TABLE IF EXISTS users");
        db.execSQL("DROP TABLE IF EXISTS attendance");
        onCreate(db);
    }

    // ----- USER AUTH -----

    public boolean registerUser(String username, String password) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues cv = new ContentValues();

```

```
        cv.put("username", username);
        cv.put("password", password);
        return db.insert("users", null, cv) != -1;
    }

    public boolean checkLogin(String username, String password) {
        SQLiteDatabase db = this.getReadableDatabase();
        Cursor cursor = db.rawQuery(
            "SELECT * FROM users WHERE username=? AND password=?",
            new String[]{username, password}
        );
        boolean exists = cursor.getCount() > 0;
        cursor.close();
        return exists;
    }

    // ----- ATTENDANCE -----

    public boolean markAttendance(String username, String date) {
        SQLiteDatabase db = this.getWritableDatabase();

        Cursor cursor = db.rawQuery(
            "SELECT * FROM attendance WHERE username=? AND date=?",
            new String[]{username, date}
        );

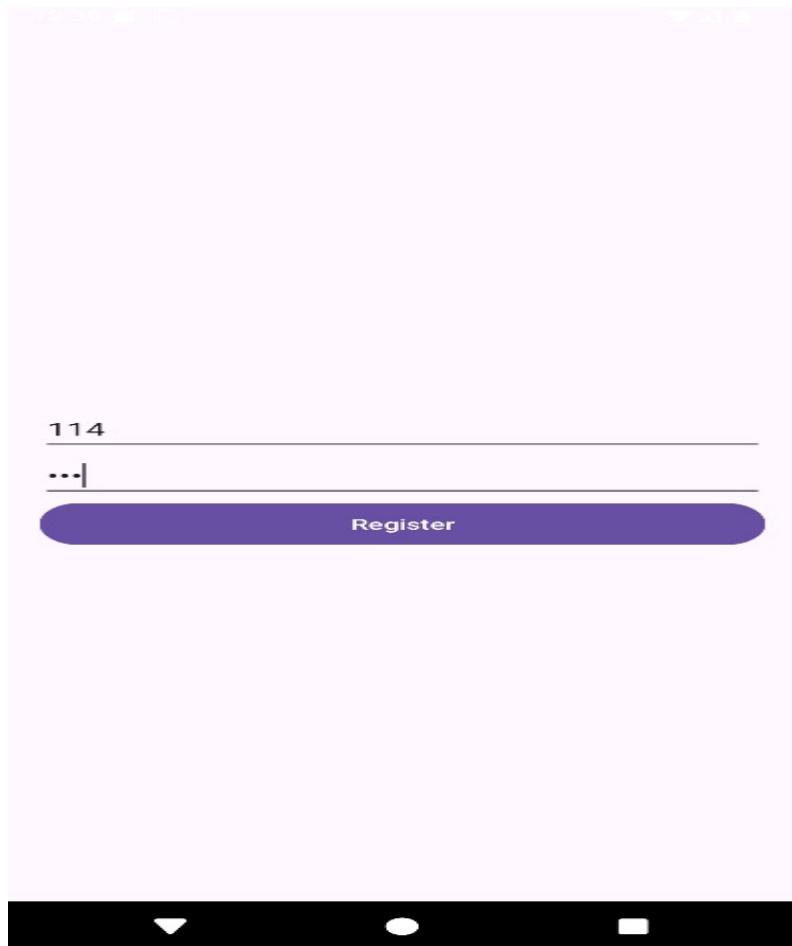
        if (cursor.getCount() > 0) {
            cursor.close();
            return false; // already marked
        }

        cursor.close();

        ContentValues cv = new ContentValues();
        cv.put("username", username);
        cv.put("date", date);
        cv.put("status", "Present");

        return db.insert("attendance", null, cv) != -1;
    }
}
```

```
public boolean isAttendanceMarked(String username, String date) {  
    SQLiteDatabase db = this.getReadableDatabase();  
    Cursor cursor = db.rawQuery(  
        "SELECT * FROM attendance WHERE username=? AND date=?",
        new String[]{username, date}  
    );  
    boolean marked = cursor.getCount() > 0;  
    cursor.close();  
    return marked;  
}  
}
```



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...

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Login

New Student? Register



Attendance Not Marked

Mark Attendance

Logout



Attendance Marked Successfully

Mark Attendance

Logout