

## PRACTICAL – 12

**Aim :-** Create an android app to save user data in a database and use of different queries.

**Code :-**

**MainActivity.java :-**

```
package com.example.dbma;

import androidx.appcompat.app.AppCompatActivity;

import android.app.AlertDialog;
import android.os.Bundle;

import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText name, contact, dob;
    Button insert, update, delete, view;
    DBHelper DB;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name = findViewById(R.id.name);
        contact = findViewById(R.id.contact);
        dob = findViewById(R.id.dob);
        insert = findViewById(R.id.btnInsert);
        update = findViewById(R.id.btnUpdate);
        delete = findViewById(R.id.btnDelete);
        view = findViewById(R.id.btnView);
        DB = new DBHelper(this);
        insert.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String nameTXT = name.getText().toString();
                String contactTXT = contact.getText().toString();
```

```
String dobTXT = dob.getText().toString();

Boolean checkinsertdata = DB.insertuserdata(nameTXT,
contactTXT, dobTXT);
    if(checkinsertdata==true)
        Toast.makeText(MainActivity.this, "New Entry Inserted",
Toast.LENGTH_SHORT).show();
    else
        Toast.makeText(MainActivity.this, "New Entry Not
Inserted", Toast.LENGTH_SHORT).show();
    } });
update.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String nameTXT = name.getText().toString();
        String contactTXT = contact.getText().toString();
        String dobTXT = dob.getText().toString();

        Boolean checkupdatedata = DB.updateuserdata(nameTXT,
contactTXT, dobTXT);
            if(checkupdatedata==true)
                Toast.makeText(MainActivity.this, "Entry Updated",
Toast.LENGTH_SHORT).show();
            else
                Toast.makeText(MainActivity.this, "New Entry Not
Updated", Toast.LENGTH_SHORT).show();
            } });
delete.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String nameTXT = name.getText().toString();
        Boolean checkdeletedata = DB.deletedata(nameTXT);
            if(checkdeletedata==true)
                Toast.makeText(MainActivity.this, "Entry Deleted",
Toast.LENGTH_SHORT).show();
            else
                Toast.makeText(MainActivity.this, "Entry Not Deleted",
Toast.LENGTH_SHORT).show();
            } });

view.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Cursor res = DB.getdata();
        if(res.getCount()==0){
```

```
        Toast.makeText(MainActivity.this, "No Entry Exists",
Toast.LENGTH_SHORT).show();
        return;
    }
    StringBuffer buffer = new StringBuffer();
    while(res.moveToNext()){
        buffer.append("Name :"+res.getString(0)+"\n");
        buffer.append("Contact :"+res.getString(1)+"\n");
        buffer.append("Date of Birth :"+res.getString(2)+"\n\n");
    }

    AlertDialog.Builder builder = new
AlertDialog.Builder(MainActivity.this);
        builder.setCancelable(true);
        builder.setTitle("User Entries");
        builder.setMessage(buffer.toString());
        builder.show();
    } });
}}
```

#### **DBHelper.java :-**

```
package com.example.dbma;
import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;
public class DBHelper extends SQLiteOpenHelper {
    public DBHelper(Context context) {
        super(context, "Userdata.db", null, 1);
    }
    @Override
    public void onCreate(SQLiteDatabase DB) {
        DB.execSQL("create Table Userdetails(name TEXT primary
key, contact TEXT, dob TEXT)");
    }
    @Override
    public void onUpgrade(SQLiteDatabase DB, int i, int ii) {
        DB.execSQL("drop Table if exists Userdetails");
    }
    public Boolean insertuserdata(String name, String contact, String
dob) {
        SQLiteDatabase DB = this.getWritableDatabase();
```

```
ContentValues contentValues = new ContentValues();
    contentValues.put("name", name);
    contentValues.put("contact", contact);
    contentValues.put("dob", dob);
    long result=DB.insert("Userdetails", null, contentValues);
    if(result==-1){
        return false;
    }else{
        return true;
    }
}

public Boolean updateuserdata(String name, String contact, String
dob) {
    SQLiteDatabase DB = this.getWritableDatabase();
    ContentValues contentValues = new ContentValues();
        contentValues.put("contact", contact);
        contentValues.put("dob", dob);
        Cursor cursor = DB.rawQuery("Select * from Userdetails where
name = ?", new String[]{name});
        if (cursor.getCount() > 0) {
            long result = DB.update("Userdetails", contentValues,
"name=?", new String[]{name});
            if (result == -1) {
                return false;
            } else {
                return true;
            }
        } else {
            return false;
        }
    }

    public Boolean deletedata (String name)
    {
        SQLiteDatabase DB = this.getWritableDatabase();
        Cursor cursor = DB.rawQuery("Select * from Userdetails where
name = ?", new String[]{name});
        if (cursor.getCount() > 0) {
            long result = DB.delete("Userdetails", "name=?", new
String[]{name});
            if (result == -1) {
                return false;
            } else {
                return true;
            }
        } else {
```

```
        return false;
    }
}

public Cursor getdata ()
{
    SQLiteDatabase DB = this.getWritableDatabase();
    Cursor cursor = DB.rawQuery("Select * from Userdetails",
    null); return cursor;
}
}
```

### **Activity\_main.xml :-**

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/texttitle"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Please enter the details below"
        android:textSize="24dp"
        android:layout_marginTop="20dp"/>

    <EditText
        android:id="@+id/name"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Name"
        android:textSize="24dp"
```

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```
android:layout_below="@+id/texttitle"
android:inputType="textPersonName"/>
<EditText
android:id="@+id/contact"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="Contact"
android:textSize="24dp"
android:layout_below="@+id/name"
android:inputType="number"/>
<EditText
android:id="@+id/dob"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="Date of Birth"
android:textSize="24dp"
android:layout_below="@+id/contact"
android:inputType="number"/>
<Button
android:id="@+id/btnInsert"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textSize="24dp"
android:text="Insert New Data"
android:layout_marginTop="30dp"
android:layout_below="@id/dob"/>
<Button
android:id="@+id/btnUpdate"
android:layout_width="match_parent"
android:layout_height="wrap_content"
```

```
android:textSize="24dp"
android:text="Update Data"
android:layout_below="@id/btnInsert"/>
<Button
android:id="@+id/btnDelete"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textSize="24dp"
android:text="Delete Existing Data"
android:layout_below="@id/btnUpdate"/>
<Button
android:id="@+id/btnView"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:textSize="24dp"
android:text="View Data"
android:layout_below="@id/btnDelete"/>
</RelativeLayout>
```

### Output :-



The screenshot displays a mobile application interface. At the top, there is a text prompt "Please enter the details below". Below this, there are three input fields labeled "Name", "Contact", and "Date of Birth". The "Date of Birth" field includes a date picker icon. Below the input fields, there are four purple buttons with white text, stacked vertically: "INSERT NEW DATA", "UPDATE DATA", "DELETE EXISTING DATA", and "VIEW DATA". The bottom portion of the screen is empty.