Practical 10- create an application that use sqlite to locally store data on database and display the data on the screen.

```
/.....MainActivity.java...../
public class MainActivity extends AppCompatActivity {

    private static final String TAG = "MainActivity";

    DatabaseHelper mDatabaseHelper;
    private Button btnAdd, btnViewData;
    private EditText editText;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        editText = (EditText) findViewById(R.id.editText);
        btnAdd = (Button) findViewById(R.id.btnAdd);
        btnViewData = (Button) findViewById(R.id.btnView);
        mDatabaseHelper = new DatabaseHelper(this);

        btnAdd.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String newEntry = editText.getText().toString();
                if (editText.length() != 0) {
                    AddData(newEntry);
                    editText.setText("");
                }
            }
        });

        btnViewData.setOnClickListener(new View.OnClickListener() {
            @Override
```

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            public void onClick(View v) {
                Intent intent = new Intent(MainActivity.this, ListDataActivity.class);
                startActivity(intent);
            }
        });

    }

    public void AddData(String newEntry) {
        boolean insertData = mDatabaseHelper.addData(newEntry);
    }
}


/.............ListDataActivity.java...............
public class ListDataActivity extends AppCompatActivity {

    private static final String TAG = "ListDataActivity";

    DatabaseHelper mDatabaseHelper;

    private ListView mListView;

    @Override
    protected void onCreate( Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.list_layout);
        mListView = (ListView) findViewById(R.id.listView);
        mDatabaseHelper = new DatabaseHelper(this);

        populateListView();
    }

    private void populateListView() {

        Cursor data = mDatabaseHelper.getData();
        ArrayList<String> listData = new ArrayList<>();
        while(data.moveToNext()){
            listData.add(data.getString(1));
        }
        ListAdapter adapter = new ArrayAdapter<>(this, android.R.layout.simple_list_item_1,
listData);
        mListView.setAdapter(adapter);
    }

}
```

```
/.....DatabaseHelper ..... /
public class DatabaseHelper extends SQLiteOpenHelper {

    private static final String TAG = "DatabaseHelper";

    private static final String TABLE_NAME = "people_table";
    private static final String COL1 = "ID";
    private static final String COL2 = "name";


    public DatabaseHelper(Context context) {
        super(context, TABLE_NAME, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        String createTable = "CREATE TABLE " + TABLE_NAME + " (ID INTEGER
PRIMARY KEY AUTOINCREMENT, " +
                COL2 +" TEXT)";
        db.execSQL(createTable);
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int i, int i1) {
        db.execSQL("DROP IF TABLE EXISTS " + TABLE_NAME);
        onCreate(db);
    }

    public boolean addData(String item) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(COL2, item);

        long result = db.insert(TABLE_NAME, null, contentValues);

        if (result == -1) {
            return false;
        } else {
            return true;
        }
    }

    public Cursor getData(){
        SQLiteDatabase db =  this.getWritableDatabase();
        String query = "SELECT * FROM " + TABLE_NAME;
```

```
        Cursor data = db.rawQuery(query, null);
        return data;
    }

}


/.............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">

    <RelativeLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/relativeLayout1">
        <EditText
            android:layout_marginTop="100dp"
            android:textAlignment="center"
            android:layout_width="match_parent"
            android:layout_height="50dp"
            android:id="@+id/editText"/>
    </RelativeLayout>

    <RelativeLayout
        android:layout_marginTop="30dp"
        android:layout_below="@+id/relativeLayout1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">

        <Button
            android:layout_marginLeft="70dp"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/btnAdd"
            android:text="Add"/>
        <Button
            android:layout_marginLeft="20dp"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/btnView"
            android:text="View Data"
```

```
        android:layout_toRightOf="@+id/btnAdd"/>

    </RelativeLayout>

</RelativeLayout>

/.....list_layout.xml ..... /
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent">
    <ListView
        android:layout_width="matc
        h_parent"
        android:layout_height="mat
        ch_parent"
        android:id="@+id/listView"
        />
</LinearLayout>
```

OUTPUTS: