

Q.2] Create table Customer (id, name, address, ph_no). Create Application for performing the following operation on the table. (Using SQLite database). i] Insert new customer details (At least 5 records). ii] Show all the customer details.

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="match_parent"
```

```
    android:padding="16dp">
```

```
    <ListView
```

```
        android:id="@+id/list_view_customers"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="match_parent"
```

```
        android:layout_above="@+id/btn_add_customer"
```

```
        android:dividerHeight="1dp" />
```

```
    <Button
```

```
        android:id="@+id/btn_add_customer"
```

```
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
```

```
        android:layout_alignParentBottom="true"
```

```
        android:layout_centerHorizontal="true"
```

```
        android:layout_marginBottom="16dp"
```

```
        android:text="Add Customer" />
```

```
</RelativeLayout>
```

```

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

public class CustomerDatabaseHelper extends SQLiteOpenHelper {

    private static final String DATABASE_NAME = "customer_database";
    private static final int DATABASE_VERSION = 1;

    // Table name and column names
    private static final String TABLE_NAME = "Customer";
    private static final String COLUMN_ID = "id";
    private static final String COLUMN_NAME = "name";
    private static final String COLUMN_ADDRESS = "address";
    private static final String COLUMN_PHONE_NUMBER = "ph_no";

    public CustomerDatabaseHelper(Context context) {
        super(context, DATABASE_NAME, null, DATABASE_VERSION);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        // Create the Customer table
        String createTableQuery = "CREATE TABLE " + TABLE_NAME + "(" +
            COLUMN_ID + " INTEGER PRIMARY KEY AUTOINCREMENT," +

```

```

        COLUMN_NAME + " TEXT," +
        COLUMN_ADDRESS + " TEXT," +
        COLUMN_PHONE_NUMBER + " TEXT" +
        "));

db.execSQL(createTableQuery);
}

```

@Override

```

public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {

    // Drop older table if existed and recreate
    db.execSQL("DROP TABLE IF EXISTS " + TABLE_NAME);
    onCreate(db);
}

```

// Method to add a new customer

```

public void addCustomer(Customer customer) {

    SQLiteDatabase db = this.getWritableDatabase();

    ContentValues values = new ContentValues();
    values.put(COLUMN_NAME, customer.getName());
    values.put(COLUMN_ADDRESS, customer.getAddress());
    values.put(COLUMN_PHONE_NUMBER, customer.getPhoneNumber());

    db.insert(TABLE_NAME, null, values);

    db.close();
}

```

// Method to get all customers

```

public List<Customer> getAllCustomers() {

```

```

List<Customer> customerList = new ArrayList<>();

SQLiteDatabase db = this.getReadableDatabase();

Cursor cursor = db.rawQuery("SELECT * FROM " + TABLE_NAME, null);

if (cursor.moveToFirst()) {
    do {
        Customer customer = new Customer();

        customer.setId(cursor.getInt(cursor.getColumnIndex(COLUMN_ID)));

        customer.setName(cursor.getString(cursor.getColumnIndex(COLUMN_NAME)));

        customer.setAddress(cursor.getString(cursor.getColumnIndex(COLUMN_ADDRESS)));

        customer.setPhoneNumber(cursor.getString(cursor.getColumnIndex(COLUMN_PHONE_NUMBER)));

        customerList.add(customer);

    } while (cursor.moveToNext());
}

cursor.close();

db.close();

return customerList;
}
}

```