

Projects

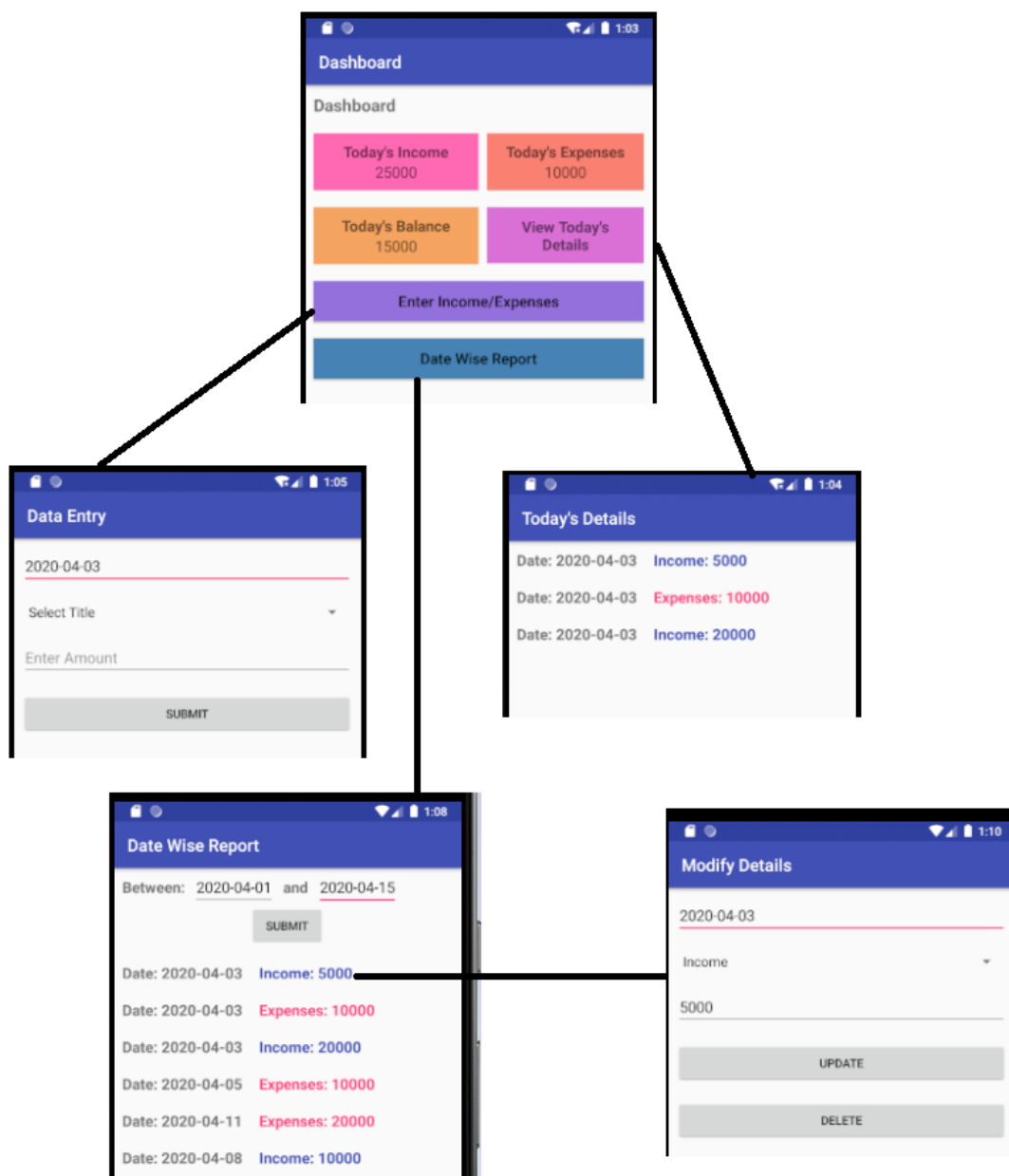
Sample Project -1 Income/Expenses Tracker

Project Title – Income/Expenses Tracker

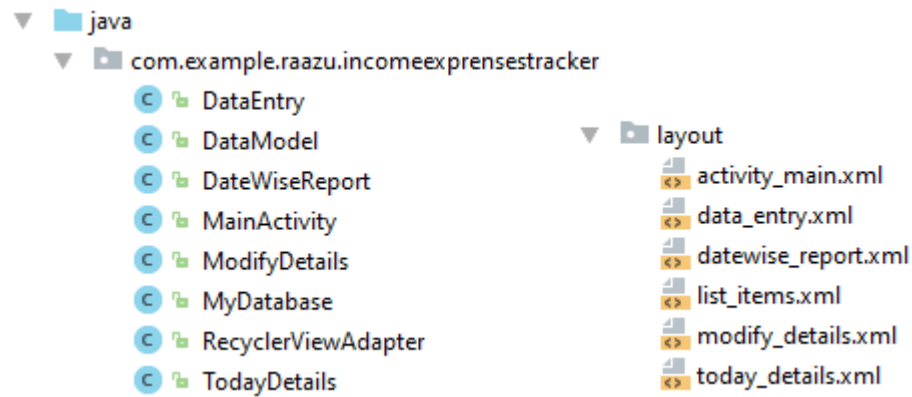
Project Features-

- Tracks daily income and expenses.
- Displays available balance by calculating income and expenses.
- Also generates date wise income/expenses report.
- Doesn't store data in remote server, but store data locally using SQLite.

Project Prototype-



Project Files-



Dashboard

activity_main.xml

```
<?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">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Dashboard"
        android:textSize="20sp"
        android:id="@+id/dashboard"
        android:layout_margin="10dp"
        android:textStyle="bold" />

    <LinearLayout
        android:layout_width="match_parent"
        android:orientation="horizontal"
        android:weightSum="2"
        android:id="@+id/linear1"
        android:layout_margin="10dp"
        android:layout_below="@+id/dashboard"
        android:layout_height="wrap_content">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_weight="1"
            android:background="#FF69B4"
            android:orientation="vertical"
            android:padding="10dp"
            android:layout_height="wrap_content">

            <TextView
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_gravity="center"
                android:textSize="18sp"
                android:textStyle="bold"
```

```

        android:text="Today's Income" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/txtIncome"
    android:layout_gravity="center"
    android:textSize="18sp"
    android:text="0" />

</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_weight="1"
    android:orientation="vertical"
    android:background="#FA8072"
    android:layout_marginLeft="10dp"
    android:padding="10dp"
    android:layout_height="wrap_content">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:textSize="18sp"
        android:textStyle="bold"
        android:text="Today's Expenses" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/txtExpenses"
        android:layout_gravity="center"
        android:textSize="18sp"
        android:text="0" />

</LinearLayout>
</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:orientation="horizontal"
    android:weightSum="2"
    android:id="@+id/linear2"
    android:layout_margin="10dp"
    android:layout_below="@+id/linear1"
    android:layout_height="wrap_content">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_weight="1"
        android:background="#F4A460"
        android:orientation="vertical"
        android:padding="10dp"
        android:layout_height="wrap_content">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center"

```

```

        android:textSize="18sp"
        android:textStyle="bold"
        android:text="Today's Balance" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/txtBalance"
        android:layout_gravity="center"
        android:textSize="18sp"
        android:text="0" />

</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_weight="1"
    android:orientation="vertical"
    android:background="#DA70D6"
    android:layout_marginLeft="10dp"
    android:padding="10dp"
    android:layout_height="wrap_content">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:textSize="18sp"
        android:textStyle="bold"
        android:gravity="center"
        android:id="@+id/txtDetails"
        android:padding="1dp"
        android:lines="2"
        android:text="View Today's Details" />

</LinearLayout>
</LinearLayout>

<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Enter Income/Expenses"
    android:textAllCaps="false"
    android:textSize="18sp"
    android:layout_below="@+id/linear2"
    android:layout_margin="10dp"
    android:id="@+id/btnEntry"
    android:background="#9370DB" />

<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Date Wise Report"
    android:textAllCaps="false"
    android:textSize="18sp"
    android:layout_below="@+id/btnEntry"
    android:layout_margin="10dp"
    android:id="@+id/btnReport"
    android:background="#4682B4" />

</RelativeLayout>

```

MainActivity.java

```
public class MainActivity extends AppCompatActivity {
    TextView txtIncome,txtExpenses,txtBalance,txtDetails;
    Button btnEntry,btnReport;
    MyDatabase myDatabase;
    Cursor cursor;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.activity_main);

        txtIncome=findViewById(R.id.txtIncome);
        txtExpenses=findViewById(R.id.txtExpenses);
        txtBalance=findViewById(R.id.txtBalance);
        txtDetails=findViewById(R.id.txtDetails);
        btnEntry=findViewById(R.id.btnEntry);
        btnReport=findViewById(R.id.btnReport);
        myDatabase=new MyDatabase(this);

        btnEntry.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent=new Intent(MainActivity.this,
                    DataEntry.class);
                startActivity(intent);
            }
        });

        txtDetails.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent=new Intent(MainActivity.this,
                    TodayDetails.class);
                startActivity(intent);
            }
        });

        btnReport.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent=new Intent(MainActivity.this,
                    DateWiseReport.class);
                startActivity(intent);
            }
        });

    }

    @Override
    protected void onResume() {
        super.onResume();
        //displaying data of current date
        loadData();
    }

    public void loadData() {
        cursor=myDatabase.selectData(getCurrentDate());
        int income=0,expenses=0,balance=0;
        while (cursor.moveToNext()) {
```

```

        income+=cursor.getInt(2);
        expenses+=cursor.getInt(3);
    }
    balance=income-expenses;
    txtIncome.setText(income+"");
    txtExpenses.setText(expenses+"");
    txtBalance.setText(balance+"");
}

public static String getCurrentDate(){
    //current date
    SimpleDateFormat formatter = new SimpleDateFormat("yyyy-MM-dd");
    Date date = new Date();
    String dat=formatter.format(date);
    return dat;
}
}

```

Data Entry

data_entry.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">

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Date"
        android:id="@+id/edtDate"
        android:inputType="date"
        android:layout_margin="10dp" />

    <Spinner
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:entries="@array/title"
        android:id="@+id/spTitle" />

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Amount"
        android:id="@+id/edtAmount"
        android:inputType="number"
        android:layout_margin="10dp" />

    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:text="Submit"
        android:id="@+id/btnSubmit" />

</LinearLayout>

```

DataEntry.java

```
public class DataEntry extends AppCompatActivity {
    EditText edtDate, edtAmount;
    Spinner spTitle;
    Button btnSubmit;
    MyDatabase myDatabase;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.data_entry);

        edtDate=findViewById(R.id.edtDate);
        edtAmount=findViewById(R.id.edtAmount);
        spTitle=findViewById(R.id.spTitle);
        btnSubmit=findViewById(R.id.btnSubmit);
        myDatabase=new MyDatabase(this);
        edtDate.setText(MainActivity.getCurrentDate());

        btnSubmit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                //getting data
                String date=edtDate.getText().toString();
                String title=spTitle.getSelectedItem().toString();
                String amount=edtAmount.getText().toString();
                //validating data
                if(date.equals("")){
                    Toast.makeText(DataEntry.this, "Please Enter Date !",
                        Toast.LENGTH_LONG).show();
                } else if(amount.equals("")) {
                    Toast.makeText(DataEntry.this, "Please Enter Amount
                        !", Toast.LENGTH_LONG).show();
                } else if(title.equals("Select Title")){
                    Toast.makeText(DataEntry.this, "Please Select Title
                        !", Toast.LENGTH_LONG).show();
                } else{
                    //checking income or expenses
                    if(title.equals("Income"))
                        myDatabase.insertData(date, amount, "0");
                    else
                        myDatabase.insertData(date, "0", amount);

                    Toast.makeText(DataEntry.this, "Data Inserted
                        Successfully !", Toast.LENGTH_LONG).show();
                    edtAmount.setText("");
                    spTitle.setSelection(0);
                }
            }
        });
    }
}
```

Database

MyDatabase.java

```
public class MyDatabase extends SQLiteOpenHelper{
    // Database Version
    private static final int DATABASE_VERSION = 1;
    // Database Name
    private static final String DATABASE_NAME = "mydatabase";

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

    // Creating Tables
    @Override
    public void onCreate(SQLiteDatabase db) {
        // create notes table
        String createQuery="CREATE TABLE mytable(id INTEGER PRIMARY KEY
            AUTOINCREMENT,date TEXT,income TEXT,expenses TEXT)";
        db.execSQL(createQuery);
    }

    // Upgrading database
    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int
        newVersion) {
        // Drop older table if existed
        db.execSQL("DROP TABLE IF EXISTS " + DATABASE_NAME);
        // Create tables again
        onCreate(db);
    }

    //code to insert data
    public void insertData(String date,String income, String expenses){
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues=new ContentValues();
        contentValues.put("date",date);
        contentValues.put("income",income);
        contentValues.put("expenses",expenses);
        //inserting row
        db.insert("mytable",null,contentValues);
        db.close();
    }

    //code to select data
    public Cursor selectData(String date){
        SQLiteDatabase db=this.getReadableDatabase();
        String query="SELECT * FROM mytable WHERE date=?";
        Cursor cursor=db.rawQuery(query,new String[]{date});
        return cursor;
    }

    public Cursor selectData(String date1, String date2){
        SQLiteDatabase db=this.getReadableDatabase();
        String query="SELECT * FROM mytable WHERE date BETWEEN ? AND ?";
        Cursor cursor=db.rawQuery(query,new String[]{date1,date2});
        return cursor;
    }
}
```



```

//code to update data
public void updateData(String id,String date, String income, String
expenses){
    SQLiteDatabase db = this.getWritableDatabase();
    ContentValues contentValues=new ContentValues();
    contentValues.put("date",date);
    contentValues.put("income",income);
    contentValues.put("expenses",expenses);
    //updating row
    db.update("mytable",contentValues,"id=?",new String[]{id});
    db.close();
}

//code to delete data
public void deleteData(String id) {
    SQLiteDatabase db = this.getWritableDatabase();
    //deleting row
    db.delete("mytable","id=?",new String[]{id});
}
}

```

Displaying Today's Details

today_details.xml

```

<?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.support.v7.widget.RecyclerView
        android:id="@+id/recyclerview"
        android:scrollbars="vertical"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>

</RelativeLayout>

```

list_items.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:id="@+id/relat"
    android:layout_height="wrap_content">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Date: 2020-04-03"
        android:layout_margin="10dp"
        android:id="@+id/txtDate"
        android:textStyle="bold"
        android:textSize="18sp" />

```

```

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Income: 20000"
    android:layout_margin="10dp"
    android:id="@+id/txtIncome"
    android:textStyle="bold"
    android:layout_toRightOf="@+id/txtDate"
    android:textColor="#3F51B5"
    android:visibility="gone"
    android:textSize="18sp" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Expenses: 10000"
    android:layout_margin="10dp"
    android:id="@+id/txtExpenses"
    android:textStyle="bold"
    android:layout_toRightOf="@+id/txtDate"
    android:textColor="#FF4081"
    android:visibility="gone"
    android:textSize="18sp" />

</RelativeLayout>

```

DataModel.java

```

public class DataModel {
    private int id;
    private String date;
    private int income;
    private int expenses;

    public DataModel(int id,String date,int income,int expenses){
        this.id=id;
        this.date=date;
        this.income=income;
        this.expenses=expenses;
    }

    public int getId(){
        return id;
    }

    public String getDate(){
        return date;
    }

    public int getIncome(){
        return income;
    }

    public int getExpenses(){
        return expenses;
    }
}

```

RecyclerViewAdapter.java

```
public class RecyclerViewAdapter extends
RecyclerView.Adapter<RecyclerViewAdapter.ViewHolder> {
    Activity context;
    ArrayList<DataModel> data;

    public RecyclerViewAdapter(Activity context, ArrayList<DataModel>
data){
        this.context=context;
        this.data=data;
    }

    @Override
    public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType)
    {
        LayoutInflater inflater = LayoutInflater.from(context);
        View listItem= inflater.inflate(R.layout.list_items,
parent, false);
        ViewHolder viewHolder = new ViewHolder(listItem);
        return viewHolder;
    }

    @Override
    public void onBindViewHolder(ViewHolder holder, int position) {
        final DataModel current=data.get(position);
        holder.txtDate.setText("Date: "+current.getDate());
        if(current.getExpenses()==0){
            holder.txtExpenses.setVisibility(View.GONE);
            holder.txtIncome.setVisibility(View.VISIBLE);
            holder.txtIncome.setText("Income: "+current.getIncome());
        }else{
            holder.txtExpenses.setVisibility(View.VISIBLE);
            holder.txtIncome.setVisibility(View.GONE);
            holder.txtExpenses.setText("Expenses: "+
current.getExpenses());
        }

        holder.relativeLayout.setOnClickListener(new View.
OnClickListener() {

            @Override
            public void onClick(View view) {
                Intent intent=new Intent(context,ModifyDetails.class);
                intent.putExtra("id",current.getId());
                intent.putExtra("date",current.getDate());
                if(current.getExpenses()==0)
                    intent.putExtra("amount",current.getIncome());
                else
                    intent.putExtra("amount",current.getExpenses());
                context.startActivity(intent);

            }
        });
    }

    @Override
    public int getItemCount() {
        return data.size();
    }
}
```

```

    }

    public static class ViewHolder extends RecyclerView.ViewHolder {
        TextView txtDate, txtIncome, txtExpenses;
        RelativeLayout relativeLayout;
        public ViewHolder(View itemView) {
            super(itemView);
            txtDate = itemView.findViewById(R.id.txtDate);
            txtIncome = itemView.findViewById(R.id.txtIncome);
            txtExpenses = itemView.findViewById(R.id.txtExpenses);
            relativeLayout = itemView.findViewById(R.id.relat);
        }
    }
}

```

TodayDetails.java

```

public class TodayDetails extends AppCompatActivity {
    RecyclerView recyclerView;
    RecyclerView.Adapter recyclerAdapter;
    RecyclerView.LayoutManager layoutManager;
    MyDatabase myDatabase;
    Cursor cursor;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.today_details);
        recyclerView = findViewById(R.id.recyclerview);
        myDatabase = new MyDatabase(this);
    }

    @Override
    protected void onResume() {
        super.onResume();
        loadData();
    }

    public void loadData() {
        cursor = myDatabase.selectData(MainActivity.getCurrentDate());
        ArrayList<DataModel> data = new ArrayList<>();
        while (cursor.moveToNext()) {
            int id = cursor.getInt(0);
            String date = cursor.getString(1);
            int income = cursor.getInt(2);
            int expenses = cursor.getInt(3);
            DataModel dataModel = new DataModel(id, date, income, expenses);
            data.add(dataModel);
        }

        layoutManager = new LinearLayoutManager(this);
        recyclerAdapter = new RecyclerView.Adapter<>(this, data);
        recyclerView.setLayoutManager(layoutManager);
        recyclerView.setAdapter(recyclerAdapter);
    }
}

```

Date wise Report

datewise_report.xml

```
<?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">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Between:"
        android:layout_margin="10dp"
        android:textSize="18sp"
        android:textStyle="bold"
        android:id="@+id/between" />

    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Enter Date"
        android:textSize="18sp"
        android:inputType="date"
        android:layout_toRightOf="@+id/between"
        android:id="@+id/edtDate1" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="and"
        android:layout_margin="10dp"
        android:layout_toRightOf="@+id/edtDate1"
        android:textSize="18sp"
        android:textStyle="bold"
        android:id="@+id/and" />

    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Enter Date"
        android:textSize="18sp"
        android:inputType="date"
        android:layout_toRightOf="@+id/and"
        android:id="@+id/edtDate2" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="submit"
        android:id="@+id/btnSubmit"
        android:layout_below="@+id/between"
        android:layout_centerHorizontal="true" />

    <android.support.v7.widget.RecyclerView
        android:id="@+id/recyclerview"
        android:layout_marginTop="10dp"
        android:scrollbars="vertical"
```

```
        android:layout_below="@+id/btnSubmit"
        android:layout_width="match_parent"
        android:layout_height="match_parent"/>
```

```
</RelativeLayout>
```

DateWiseReport.java

```
public class DateWiseReport extends AppCompatActivity {
    RecyclerView recyclerView;
    RecyclerView.Adapter recyclerViewAdapter;
    RecyclerView.LayoutManager layoutManager;
    MyDatabase myDatabase;
    Cursor cursor;
    EditText edtDate1, edtDate2;
    Button btnSubmit;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.datewise_report);
        recyclerView=findViewById(R.id.recyclerview);
        myDatabase=new MyDatabase(this);
        edtDate1=findViewById(R.id.edtDate1);
        edtDate2=findViewById(R.id.edtDate2);
        btnSubmit=findViewById(R.id.btnSubmit);

        btnSubmit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                loadData();
            }
        });
    }

    public void loadData() {
        String date1=edtDate1.getText().toString();
        String date2=edtDate2.getText().toString();
        if(date1.equals("")||date2.equals("")){
            Toast.makeText(DateWiseReport.this,"Please Enter Date !",
                Toast.LENGTH_LONG).show();
        }else{
            cursor=myDatabase.selectData(date1,date2);
            ArrayList<DataModel> data=new ArrayList<>();
            while (cursor.moveToNext()){
                int id=cursor.getInt(0);
                String date=cursor.getString(1);
                int income=cursor.getInt(2);
                int expenses=cursor.getInt(3);
                DataModel dataModel=new DataModel(id,date,income,
                    expenses);
                data.add(dataModel);
            }
            layoutManager=new LinearLayoutManager(this);
            recyclerViewAdapter=new RecyclerViewAdapter(this,data);
            recyclerView.setLayoutManager(layoutManager);
            recyclerView.setAdapter(recyclerViewAdapter);
        }
    }
}
```

Modifying Data

modify_details.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">

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Date"
        android:id="@+id/edtDate"
        android:inputType="date"
        android:layout_margin="10dp" />

    <Spinner
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:entries="@array/title"
        android:id="@+id/spTitle" />

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Amount"
        android:id="@+id/edtAmount"
        android:inputType="number"
        android:layout_margin="10dp" />

    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:text="Update"
        android:id="@+id/btnUpdate"/>

    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:text="Delete"
        android:id="@+id/btnDelete"/>

</LinearLayout>
```

ModifyDetails.java

```
public class ModifyDetails extends AppCompatActivity {
    EditText edtDate, edtAmount;
    Spinner spTitle;
    Button btnUpdate, btnDelete;
    MyDatabase myDatabase;
    int id=0, amount=0;
```

```

String date="";
@Override
protected void onCreate(Bundle b) {
    super.onCreate(b);
    setContentView(R.layout.modify_details);

    edtDate=findViewById(R.id.edtDate);
    edtAmount=findViewById(R.id.edtAmount);
    spTitle=findViewById(R.id.spTitle);
    btnUpdate=findViewById(R.id.btnUpdate);
    btnDelete=findViewById(R.id.btnDelete);
    myDatabase=new MyDatabase(this);

    Intent intent=getIntent();
    id=intent.getIntExtra("id",0);
    date=intent.getStringExtra("date");
    amount=intent.getIntExtra("amount",0);

    edtDate.setText(date);
    edtAmount.setText(amount+"");

    btnDelete.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            myDatabase.deleteData(String.valueOf(id));
            Toast.makeText(ModifyDetails.this,"Data Deleted
                Successfully !",Toast.LENGTH_LONG).show();
            finish();
        }
    });

    btnUpdate.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            //getting data
            String date=edtDate.getText().toString();
            String title=spTitle.getSelectedItem().toString();
            String amount=edtAmount.getText().toString();
            //validating data
            if(date.equals("")){
                Toast.makeText(ModifyDetails.this,"Please Enter Date
                    !",Toast.LENGTH_LONG).show();
            } else if(amount.equals("")) {
                Toast.makeText(ModifyDetails.this, "Please Enter
                    Amount !", Toast.LENGTH_LONG).show();
            } else if(title.equals("Select Title")){
                Toast.makeText(ModifyDetails.this,"Please Select
                    Title !",Toast.LENGTH_LONG).show();
            }else{
                //checking income or expenses
                if(title.equals("Income"))
                    myDatabase.updateData(String.valueOf(id),
                        date,amount,"0");
                else
                    myDatabase.updateData(String.valueOf(id),
                        date,"0",amount);

                Toast.makeText(ModifyDetails.this,"Data Updated
                    Successfully !",Toast.LENGTH_LONG).show();
                finish();
            }
        }
    });
}

```



```
}  
    }  
    });  
}
```

Manifest File

AndroidManifest.xml

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
    package="com.example.raazu.incomeexpensestracker">  
    <application  
        android:allowBackup="true"  
        android:icon="@mipmap/ic_launcher"  
        android:label="@string/app_name"  
        android:roundIcon="@mipmap/ic_launcher_round"  
        android:supportsRtl="true"  
        android:theme="@style/AppTheme">  
  
        <activity android:name=".MainActivity" android:label="Dashboard">  
            <intent-filter>  
                <action android:name="android.intent.action.MAIN"/>  
                <category android:name="android.intent.  
                    category.LAUNCHER"/>  
            </intent-filter>  
        </activity>  
        <activity android:name=".DataEntry" android:label="Data Entry"/>  
        <activity android:name=".TodayDetails" android:label="Today's  
            Details"/>  
        <activity android:name=".ModifyDetails" android:label="Modify  
            Details"/>  
        <activity android:name=".DateWiseReport" android:label="Date Wise  
            Report"/>  
    </application>  
</manifest>
```

Gradle Build File

build.gradle

```
dependencies {  
    implementation fileTree(dir: 'libs', include: ['*.jar'])  
    implementation 'com.android.support:appcompat-v7:26.1.0'  
    implementation 'com.android.support:recyclerview-v7:26.1.0'  
}
```

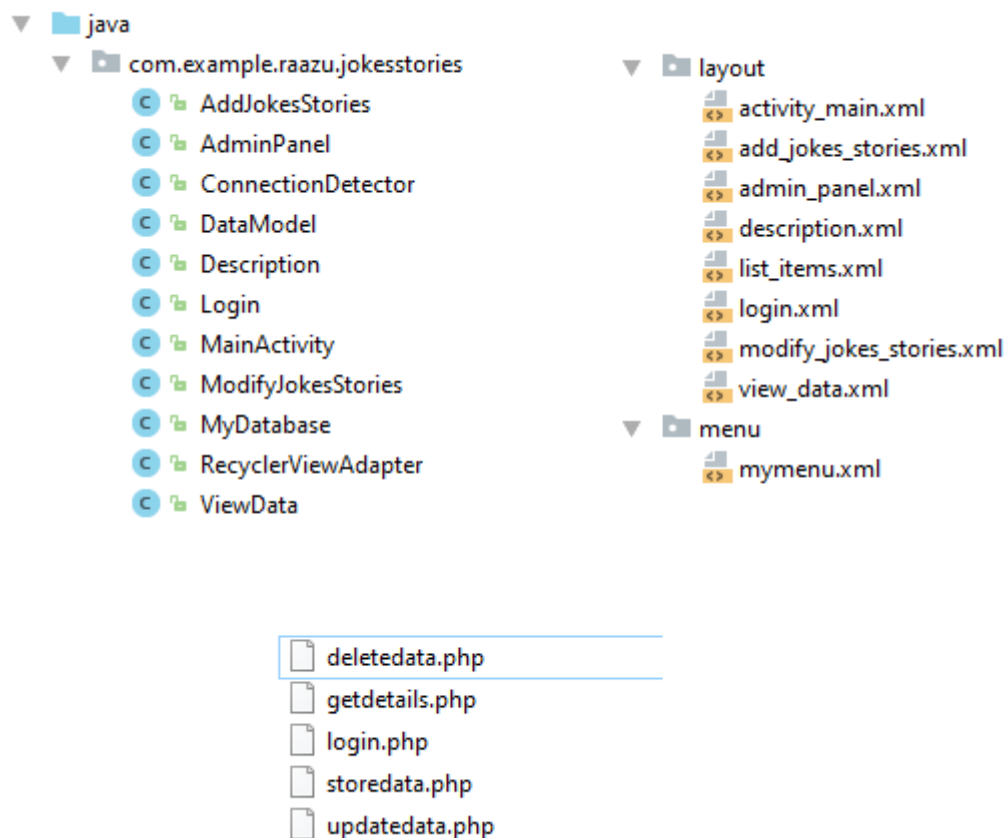
Sample Project -2 Jokes/Stories Application

Project Title – Jokes/Stories Application

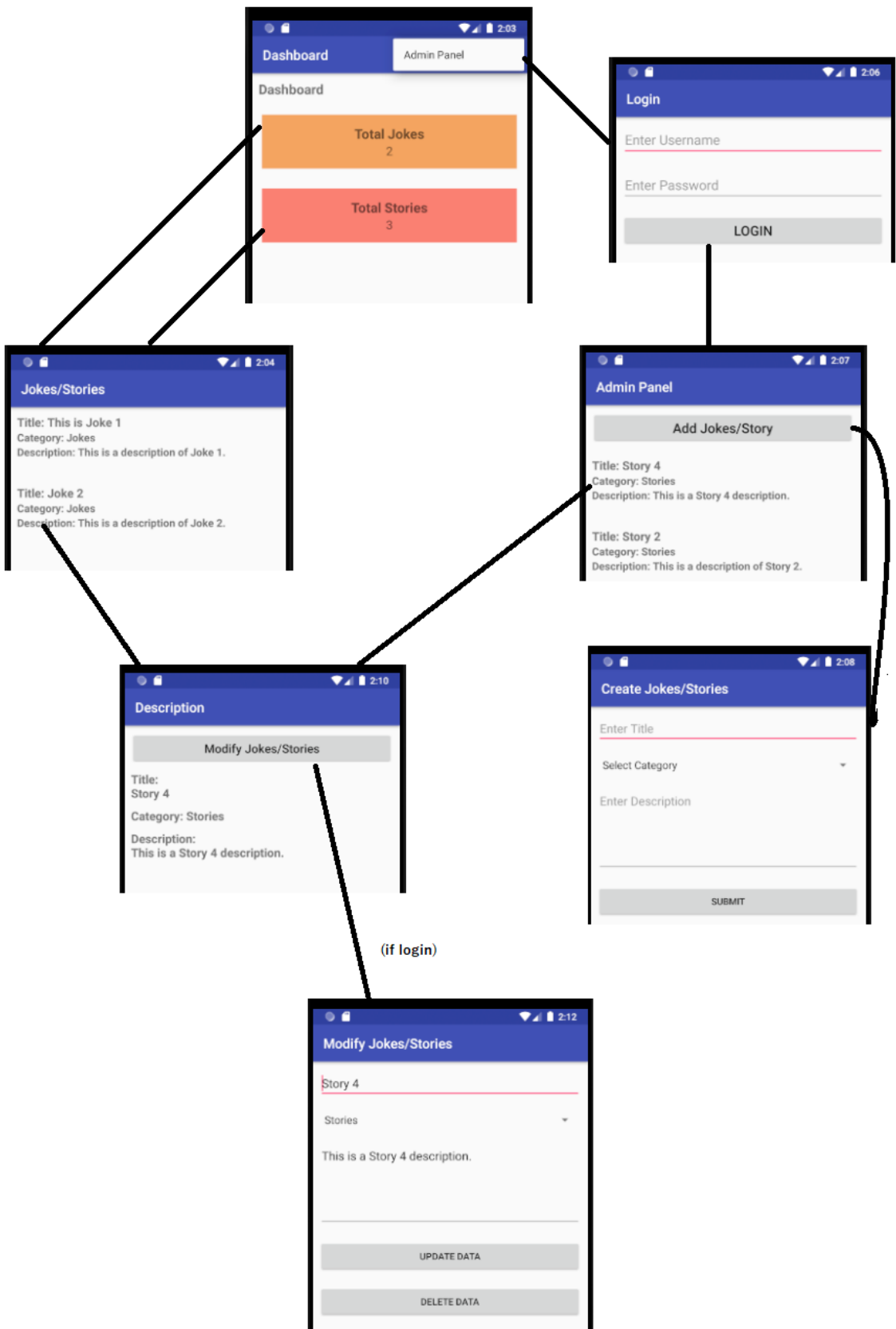
Project Features-

- Jokes and stories can be added by admin.
- Admin can update/delete jokes/stories.
- All data are saved permanently on remote server.
- Users can read jokes/stories anytime/anywhere.
- Data once loaded are saved locally using SQLite.
- So, users are able to read jokes/stories even if there is no internet connection.

Project Files-



Project Prototype:



Database Tables

+ Options

tbllogin


← T →


id


username

password

☐

 Edit

 Copy

 Delete

3

admin

admin

+ Options

tbldata

← T →


id


category


title

description

☐

 Edit

 Copy

 Delete


1


Jokes


This is Joke 1

This is a description of Joke 1.

☐

 Edit

 Copy

 Delete


2


Jokes


Joke 2

This is a description of Joke 2.

☐

 Edit

 Copy

 Delete


3


Stories


Story 1

This is a description of Story 1.

☐

 Edit

 Copy

 Delete

4

Stories

Story 2

This is a description of Story 2.

Necessary API's

login.php

```
<?php
$user=$_POST["username"];
$pass=$_POST["password"];

$server="localhost";
$username="root";
$password="";
$databse="bcatest";

// Create connection
$conn = new mysqli($server, $username, $password,$databse);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

//retrieving data
$sql = "SELECT * FROM tbllogin WHERE username='$user' AND
password='$pass'";
$result = $conn->query($sql);

if($result->num_rows>0)
    echo "Success";
else
    echo "Failed";

$conn->close();
?>
```

storedata.php

```
<?php

//getting post data
$title=$_POST["title"];
$category=$_POST["category"];
$description=$_POST["description"];

//server credentials
$server="localhost";
$username="root";
$password="";
$database="bcatest";

// Create connection
$conn = new mysqli($server, $username, $password,$database);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

//inserting data
$sql = "INSERT INTO tbldata(title,category,description)
VALUES('".$title."','".$category."','".$description."')";
$result = $conn->query($sql);

if($result)
    echo"Data Inserted Successfully !";
else
    echo"Failed to Insert Data !";
$conn->close();
?>
```

getdetails.php

```
<?php
$server="localhost";
$username="root";
$password="";
$database="bcatest";

// Create connection
$conn = new mysqli($server,$username,$password,$database);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

//retrieving data
```

```

$sql="SELECT * FROM tblldata ORDER BY id DESC";
$result = $conn->query($sql);

//encoding data in json format
$json = array();
if($result->num_rows>0){
    while ($row = $result->fetch_array()) {
        $json["data"][] =
array("id"=>$row["id"],"title"=>$row["title"],"category"=>$row["category
"],"description"=>$row["description"]);
    }
}

echo json_encode($json);
$conn->close();
?>

```

updatedata.php

```

<?php

//getting post data
$id=$_POST["id"];
$title=$_POST["title"];
$category=$_POST["category"];
$description=$_POST["description"];

//server credentials
$server="localhost";
$username="root";
$password="";
$database="bcatest";

// Create connection
$conn = new mysqli($server, $username, $password,$database);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

//updating data
$sql = "UPDATE tblldata SET title='$title', category='$category',
description='$description' WHERE id='$id'";
$result = $conn->query($sql);

if($result)
    echo"Data Updated Successfully !";
else
    echo"Failed to Update Data !";
$conn->close();
?>

```

deletedata.php

```
<?php

//getting post data
$id=$_POST["id"];

//server credentials
$server="localhost";
$username="root";
$password="";
$databse="bcatest";

// Create connection
$conn = new mysqli($server, $username, $password,$databse);

// Check connection
if ($conn->connect_error) {
    die("Connection failed: " . $conn->connect_error);
}

//updating data
$sql = "DELETE FROM tbldata WHERE id='$id'";
$result = $conn->query($sql);

if($result)
    echo"Data Deleted Successfully !";
else
    echo"Failed to Delete Data !";
$conn->close();
?>
```

Connection Detector (Checking Internet Connection)

ConnectionDetector.java

```
public class ConnectionDetector {

    private Context _context;

    public ConnectionDetector(Context context){
        this._context = context;
    }

    public boolean isConnectingToInternet() {
        ConnectivityManager connectivity = (ConnectivityManager)
            _context.getSystemService(Context.CONNECTIVITY_SERVICE);
        if (connectivity != null)
        {
            NetworkInfo[] info = connectivity.getAllNetworkInfo();
            if (info != null)
                for (int i = 0; i < info.length; i++)
                    if (info[i].getState() ==
```

```

NetworkInfo.State.CONNECTED)
    {
        return true;
    }

}
return false;
}
}

```

Local SQLite Database

MyDatabase.java

```

public class MyDatabase extends SQLiteOpenHelper{
    // Database Version
    private static final int DATABASE_VERSION = 1;
    // Database Name
    private static final String DATABASE_NAME = "mydbase";

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

    // Creating Tables
    @Override
    public void onCreate(SQLiteDatabase db) {
        // create notes table
        String createQuery="CREATE TABLE mytable(id INTEGER PRIMARY KEY,
            title TEXT,category TEXT,description TEXT)";
        db.execSQL(createQuery);
    }

    // Upgrading database
    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int
        newVersion) {
        // Drop older table if existed
        db.execSQL("DROP TABLE IF EXISTS " + DATABASE_NAME );
        // Create tables again
        onCreate(db);
    }

    //code to insert data
    public void insertData(int id,String title, String category,
        String description){
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues=new ContentValues();
        contentValues.put("id",id);
        contentValues.put("title",title);
        contentValues.put("category",category);
        contentValues.put("description",description);
        //inserting row
        db.insert("mytable",null,contentValues);
        db.close();
    }

    //code to select data
    public Cursor selectData(){

```



```

        SQLiteDatabase db=this.getReadableDatabase();
        String query="SELECT * FROM mytable";
        Cursor cursor=db.rawQuery(query,null);
        return cursor;
    }

    public Cursor selectData(String category){
        SQLiteDatabase db=this.getReadableDatabase();
        String query="SELECT * FROM mytable WHERE category=?";
        Cursor cursor=db.rawQuery(query,new String[]{category});
        return cursor;
    }

    //code to delete data
    public void deleteData() {
        SQLiteDatabase db = this.getWritableDatabase();
        //deleting row
        db.delete("mytable",null,null);
    }
}

```

Dashboard

activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:orientation="vertical"
    android:layout_height="match_parent">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Dashboard"
        android:textSize="20sp"
        android:layout_margin="10dp"
        android:textStyle="bold" />

    <LinearLayout
        android:layout_width="match_parent"
        android:background="#F4A460"
        android:orientation="vertical"
        android:padding="15dp"
        android:layout_margin="15dp"
        android:layout_height="wrap_content">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_gravity="center"
            android:textSize="20sp"
            android:textStyle="bold"
            android:text="Total Jokes" />

        <TextView
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:id="@+id/txtJokes"

```

```

        android:gravity="center"
        android:textSize="18sp"
        android:text="0" />

</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:background="#FA8072"
    android:orientation="vertical"
    android:padding="15dp"
    android:layout_margin="15dp"
    android:layout_height="wrap_content">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:textSize="20sp"
        android:textStyle="bold"
        android:text="Total Stories" />

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/txtStories"
        android:gravity="center"
        android:textSize="18sp"
        android:text="0" />

</LinearLayout>
</LinearLayout>

```

MainActivity.java

```

public class MainActivity extends AppCompatActivity {
    TextView txtJokes, txtStories;
    MyDatabase myDatabase;
    int totalJokes=0, totalStories=0;
    ConnectionDetector cd;
    Boolean isInternetPresent=false;
    Cursor cursor;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.activity_main);

        txtJokes=findViewById(R.id.txtJokes);
        txtStories=findViewById(R.id.txtStories);
        myDatabase=new MyDatabase(this);
        cd=new ConnectionDetector(this);

        //checking internet connection
        isInternetPresent=cd.isConnectingToInternet();
        if(isInternetPresent){
            //no internet connection
            //loading from sqlite
            loadData();
        }else{
            //no internet

```

```

        //loading from sqlite
        cursor=myDatabase.selectData();
        while (cursor.moveToNext()){
            String category=cursor.getString(2);
            if(category.equals("Jokes"))
                totalJokes++;
            else
                totalStories++;
            txtJokes.setText(totalJokes+"");
            txtStories.setText(totalStories+"");
        }
    }

    txtJokes.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent=new Intent(MainActivity.this,
                ViewData.class);
            intent.putExtra("category", "Jokes");
            startActivity(intent);
        }
    });

    txtStories.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent=new Intent(MainActivity.this,
                ViewData.class);
            intent.putExtra("category", "Stories");
            startActivity(intent);
        }
    });
}

public void loadData(){
    //displaying progress dialog
    final ProgressDialog progress=new ProgressDialog(this);
    progress.setMessage("Loading... Please Wait...");
    progress.show();

    RequestQueue queue = Volley.newRequestQueue(this);
    //url for localhost with get request
    String url ="http://10.0.2.2/myproject/getdetails.php";
    // Request a string response from the provided URL.
    StringRequest stringRequest = new
        StringRequest(Request.Method.GET, url,
            new Response.Listener<String>() {
                @Override
                public void onResponse(String response) {
                    progress.dismiss();
                    try {
                        //deleting all data from SQLite
                        myDatabase.deleteData();
                        JSONObject result=new JSONObject(response);
                        JSONArray array=result.getJSONArray("data");
                        for(int i=0;i<array.length();i++){
                            JSONObject data=array.getJSONObject(i);
                            int id=data.getInt("id");
                            String title=data.getString("title");

```

```

        String category=data.getString ("category");
        String description=data.getString("description");

        //inserting to SQLite

        myDatabase.insertData(id,title,category,description);

        if(category.equals("Jokes"))
            totalJokes++;
        else
            totalStories++;
    }

    //setting data
    txtJokes.setText(totalJokes+"");
    txtStories.setText(totalStories+"");

    } catch (Exception ex){}
    }
    }, new Response.ErrorListener() {
@Override
public void onErrorResponse(VolleyError error) {
    //displaying error response message
    Toast.makeText(MainActivity.this,error.toString(),
        Toast.LENGTH_LONG).show();
    progress.dismiss();
}
});
// Add the request to the RequestQueue.
queue.add(stringRequest);
}

//adding options menu
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    MenuInflater inflater = getMenuInflater();
    inflater.inflate(R.menu.mymenu, menu);
    return true;
}

//handling clicks
@Override
public boolean onOptionsItemSelected(MenuItem item) {
    // Handle item selection
    switch (item.getItemId()) {
        case R.id.admin:
            Intent intent=new Intent(MainActivity.this,Login.class);
            startActivity(intent);
            return true;

        default:
            return super.onOptionsItemSelected(item);
    }
}
}
}

```

Displaying Data

view_data.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">

    <android.support.v7.widget.RecyclerView
        android:layout_width="match_parent"
        android:id="@+id/recyclerview"
        android:layout_height="wrap_content"/>

</LinearLayout>
```

list_items.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_margin="10dp"
    android:id="@+id/linear"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Title: MyTitle"
        android:textSize="18sp"
        android:textStyle="bold"
        android:lines="1"
        android:id="@+id/txtTitle" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Category: Jokes"
        android:textSize="16sp"
        android:textStyle="bold"
        android:id="@+id/txtCategory"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Description: This is description"
        android:lines="2"
        android:id="@+id/txtDescription"
        android:textSize="16sp"
        android:textStyle="bold"/>

</LinearLayout>
```

description.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_margin="10dp"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Modify Jokes/Stories"
        android:textAllCaps="false"
        android:textSize="18sp"
        android:visibility="gone"
        android:id="@+id/btnModify"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Title: MyTitle"
        android:textSize="18sp"
        android:textStyle="bold"
        android:layout_marginTop="10dp"
        android:id="@+id/txtTitle" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Category: Jokes"
        android:textSize="18sp"
        android:textStyle="bold"
        android:layout_marginTop="10dp"
        android:id="@+id/txtCategory"/>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Description: This is description"
        android:id="@+id/txtDescription"
        android:textSize="18sp"
        android:layout_marginTop="10dp"
        android:textStyle="bold"/>

</LinearLayout>
```

DataModel.java

```
public class DataModel {
    private int id;
    private String title;
    private String category;
    private String description;

    public DataModel(int id,String title,String category,String
description){
        this.id=id;
        this.title=title;
```

```

        this.category=category;
        this.description=description;
    }

    public int getId(){
        return id;
    }

    public String getTitle(){
        return title;
    }

    public String getCategory(){
        return category;
    }

    public String getDescription(){
        return description;
    }
}

```

RecyclerViewAdapter.java

```

public class RecyclerViewAdapter extends
RecyclerView.Adapter<RecyclerViewAdapter.ViewHolder> {
    Activity context;
    ArrayList<DataModel> data;

    public RecyclerViewAdapter(Activity context, ArrayList<DataModel>
data) {
        this.context=context;
        this.data=data;
    }

    @Override
    public ViewHolder onCreateViewHolder(ViewGroup parent, int viewType) {
        LayoutInflater inflater = LayoutInflater.from(context);
        View listItem= inflater.inflate(R.layout.list_items,
parent, false);
        ViewHolder viewHolder = new ViewHolder(listItem);
        return viewHolder;
    }

    @Override
    public void onBindViewHolder(ViewHolder holder, int position) {
        final DataModel current=data.get(position);
        holder.txtTitle.setText("Title: "+current.getTitle());
        holder.txtCategory.setText("Category: "+current.getCategory());
        holder.txtDescription.setText("Description: "+
current.getDescription());

        holder.linearLayout.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent=new Intent(context,Description.class);
                intent.putExtra("id",current.getId());
                intent.putExtra("title",current.getTitle());
                intent.putExtra("category",current.getCategory());
                intent.putExtra("description",current.getDescription());
                context.startActivity(intent);
            }
        });
    }
}

```

```

        }
    });
}

@Override
public int getItemCount() {
    return data.size();
}

public static class ViewHolder extends RecyclerView.ViewHolder {
    TextView txtTitle, txtCategory, txtDescription;
    LinearLayout linearLayout;
    public ViewHolder(View itemView) {
        super(itemView);
        txtTitle = itemView.findViewById(R.id.txtTitle);
        txtCategory = itemView.findViewById(R.id.txtCategory);
        txtDescription = itemView.findViewById(R.id.txtDescription);
        linearLayout=itemView.findViewById(R.id.linear);
    }
}
}
}

```

ViewData.java

```

public class ViewData extends AppCompatActivity {
    RecyclerView recyclerView;
    RecyclerView.Adapter recyclerAdapter;
    RecyclerView.LayoutManager layoutManager;
    String category="";
    MyDatabase myDatabase;
    Cursor cursor;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.view_data);
        recyclerView=findViewById(R.id.recyclerview);
        myDatabase=new MyDatabase(this);
        Intent intent=getIntent();
        category=intent.getStringExtra("category");

        //loading data from sqlite
        cursor=myDatabase.selectData(category);
        ArrayList<DataModel> data=new ArrayList<>();
        while (cursor.moveToNext()){
            int id=cursor.getInt(0);
            String title=cursor.getString(1);
            String category=cursor.getString(2);
            String description=cursor.getString(3);
            DataModel dataModel=new DataModel
                (id,title,category,description);
            data.add(dataModel);
        }
        //displaying in recyclerview
        layoutManager=new LinearLayoutManager(this);
        recyclerAdapter=new RecyclerView.Adapter(this,data);
        recyclerView.setLayoutManager(layoutManager);
        recyclerView.setAdapter(recyclerAdapter);
    }
}
}

```


Description.java

```
public class Description extends AppCompatActivity {
    TextView txtTitle, txtCategory, txtDescription;
    Button btnModify;
    int id=0;
    String title="", category="", description="";
    public static boolean isLogin=false;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.description);

        txtTitle=findViewById(R.id.txtTitle);
        txtCategory=findViewById(R.id.txtCategory);
        txtDescription=findViewById(R.id.txtDescription);
        btnModify=findViewById(R.id.btnModify);

        if(isLogin)
            btnModify.setVisibility(View.VISIBLE);

        Intent intent=getIntent();
        id=intent.getIntExtra("id", 0);
        title=intent.getStringExtra("title");
        category=intent.getStringExtra("category");
        description=intent.getStringExtra("description");

        txtTitle.setText("Title:\n"+title);
        txtCategory.setText("Category: "+category);
        txtDescription.setText("Description:\n"+description);

        btnModify.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent=new Intent(Description.this,
                    ModifyJokesStories.class);
                intent.putExtra("id", id);
                intent.putExtra("title", title);
                intent.putExtra("category", category);
                intent.putExtra("description", description);
                startActivity(intent);
                finish();
            }
        });
    }
}
```

Admin Panel

login.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">
```

```

<EditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter Username"
    android:layout_margin="10dp"
    android:textSize="20sp"
    android:id="@+id/edtUsername"/>

<EditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter Password"
    android:layout_margin="10dp"
    android:textSize="20sp"
    android:id="@+id/edtPassword"/>

<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Login"
    android:layout_margin="10dp"
    android:textSize="20sp"
    android:id="@+id/btnLogin" />

</LinearLayout>

```

Login.java

```

public class Login extends AppCompatActivity {
    EditText edtUsername, edtPassword;
    Button btnLogin;
    ConnectionDetector cd;
    Boolean isInternetPresent=false;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.login);

        edtUsername=findViewById(R.id.edtUsername);
        edtPassword=findViewById(R.id.edtPassword);
        btnLogin=findViewById(R.id.btnLogin);
        cd=new ConnectionDetector(this);

        btnLogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                isInternetPresent=cd.isConnectingToInternet();
                if(isInternetPresent)
                    CheckLogin();
                else
                    Toast.makeText(Login.this,"Internet Connection
                        Required !",Toast.LENGTH_LONG).show();
            }
        });
    }

    public void CheckLogin() {
        //Showing progress dialog
        final ProgressDialog progress=new ProgressDialog(this);
        progress.setMessage("Processing... Please Wait...");
    }
}

```

```

progress.setCancelable(false);
progress.show();

RequestQueue queue = Volley.newRequestQueue(this);
String url ="http://10.0.2.2/myproject/login.php";
StringRequest stringRequest = new
    StringRequest(Request.Method.POST, url,
        new Response.Listener<String>() {
            @Override
            public void onResponse(String response) {
                if(response.equals("Success")){
                    Description.isLogin=true;
                    Intent intent=new Intent(Login.this,
                        AdminPanel.class);
                    startActivity(intent);
                    finish();
                }else{
                    Toast.makeText(Login.this, "Login Failed !",
                        Toast.LENGTH_LONG).show();
                }
                progress.dismiss();
            }
        }, new Response.ErrorListener() {
            @Override
            public void onErrorResponse(VolleyError error) {
                Toast.makeText(Login.this, error.toString(),
                    Toast.LENGTH_LONG).show();
                progress.dismiss();
            }
        }) {
    //sending data to server
    @Override
    protected HashMap<String,String> getParams() {
        HashMap<String,String> params = new HashMap<>();
        params.put("username", edtUsername.getText().toString());
        params.put("password", edtPassword.getText().toString());
        return params;
    }

};
queue.add(stringRequest);
}

```

admin_panel.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">

    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Add Jokes/Story"
        android:textSize="20sp"
        android:layout_margin="10dp"
        android:textAllCaps="false"
        android:id="@+id/btnCreate" />

```

```

        <android.support.v7.widget.RecyclerView
            android:layout_width="match_parent"
            android:id="@+id/recyclerview"
            android:layout_height="match_parent"/>
    </LinearLayout>

```

AdminPanel.java

```

public class AdminPanel extends AppCompatActivity {
    Button btnCreate;
    RecyclerView recyclerview;
    RecyclerView.Adapter recycleraAdapter;
    RecyclerView.LayoutManager layoutManager;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.admin_panel);
        btnCreate=findViewById(R.id.btnCreate);

        recyclerview=findViewById(R.id.recyclerview);

        btnCreate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent=new Intent(AdminPanel.this,
                    AddJokesStories.class);
                startActivity(intent);
            }
        });
    }

    public void loadData() {
        //displaying progress dialog
        final ProgressDialog progress=new ProgressDialog(this);
        progress.setMessage("Loading... Please Wait...");
        progress.setCancelable(false);
        progress.show();

        RequestQueue queue = Volley.newRequestQueue(this);
        //url for localhost with get request
        String url =
            "http://10.0.2.2/myproject/getdetails.php?category=All";
        // Request a string response from the provided URL.
        StringRequest stringRequest = new
            StringRequest(Request.Method.GET, url,
                new Response.Listener<String>() {
                    @Override
                    public void onResponse(String response) {
                        //passing data for decoding
                        decodeJson(response);
                        progress.dismiss();
                    }
                }, new Response.ErrorListener() {

                    @Override
                    public void onErrorResponse(VolleyError error) {

```

```

        //displaying error response message
        Toast.makeText(AdminPanel.this,error.toString(),
            Toast.LENGTH_LONG).show();
        progress.dismiss();
    }
});
// Add the request to the RequestQueue.
queue.add(stringRequest);
}

public void decodeJson(String response) {
    try{
        ArrayList<DataModel> data=new ArrayList<>();
        JSONObject result=new JSONObject(response);
        JSONArray array=result.getJSONArray("data");
        for(int i=0;i<array.length();i++){
            JSONObject student=array.getJSONObject(i);
            int sid=student.getInt("id");
            String title=student.getString("title");
            String category=student.getString("category");
            String description=student.getString("description");
            DataModel dataModel=new DataModel
                (sid,title,category,description);
            data.add(dataModel);
        }
        //plotting data in recyclerview
        layoutManager=new LinearLayoutManager(this);
        recyclerView.setLayoutManager(layoutManager);
        recyclerViewAdapter=new RecyclerViewAdapter
            (AdminPanel.this,data);
        recyclerView.setAdapter(recyclerViewAdapter);

    } catch (Exception ex){
        Log.d("exception",ex.toString());
    }
}

@Override
protected void onResume() {
    super.onResume();
    loadData();
}
}

```

Adding Jokes/Stories

add_jokes_stories.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">

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"

```

```

        android:hint="Enter Title"
        android:id="@+id/edtTitle"
        android:textSize="18sp" />

<Spinner
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:id="@+id/spCategory"
    android:entries="@array/category" />

<EditText
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter Description"
    android:textSize="18sp"
    android:layout_margin="10dp"
    android:lines="5"
    android:id="@+id/edtDescription"
    android:gravity="start" />

<Button
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:text="Submit"
    android:id="@+id/btnSubmit" />

</LinearLayout>

```

AddJokesStories.java

```

public class AddJokesStories extends AppCompatActivity {
    EditText edtTitle, edtDescription;
    Spinner spCategory;
    Button btnSubmit;
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.add_jokes_stories);

        edtTitle=findViewById(R.id.edtTitle);
        edtDescription=findViewById(R.id.edtDescription);
        spCategory=findViewById(R.id.spCategory);
        btnSubmit=findViewById(R.id.btnSubmit);

        btnSubmit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String title=edtTitle.getText().toString();
                String category=spCategory.getSelectedItem().toString();
                String description=edtDescription.getText().toString();
                if(title.equals(""))
                    Toast.makeText(AddJokesStories.this,"Please Enter
                        Title !",Toast.LENGTH_LONG).show();
                else if(category.equals("Select Category"))
                    Toast.makeText(AddJokesStories.this,"Please Select
                        Category !",Toast.LENGTH_LONG).show();
                else if(description.equals(""))

```

```

        Toast.makeText(AddJokesStories.this, "Please Enter
            Description !", Toast.LENGTH_LONG).show();
    }
    else
        submitData(title, category, description);
    }
    });
}

public void submitData(final String title, final String category,
    final String description){
    //Showing progress dialog
    final ProgressDialog progress=new ProgressDialog(this);
    progress.setMessage("Submitting... Please Wait...");
    progress.setCancelable(false);
    progress.show();

    RequestQueue queue = Volley.newRequestQueue(this);
    String url ="http://10.0.2.2/myproject/storedata.php";
    StringRequest stringRequest = new
        StringRequest(Request.Method.POST, url,
            new Response.Listener<String>() {
                @Override
                public void onResponse(String response) {
                    Toast.makeText(AddJokesStories.this, response,
                        Toast.LENGTH_LONG).show();
                    progress.dismiss();
                    edtTitle.setText("");
                    spCategory.setSelection(0);
                    edtDescription.setText("");
                }
            }, new Response.ErrorListener() {
                @Override
                public void onErrorResponse(VolleyError error) {
                    Toast.makeText(AddJokesStories.this, error.toString(),
                        Toast.LENGTH_LONG).show();
                    progress.dismiss();
                }
            }) {
        //sending data to server
        @Override
        protected HashMap<String,String> getParams(){
            HashMap<String,String> params = new HashMap<>();
            params.put("title",title);
            params.put("category",category);
            params.put("description",description);
            return params;
        }
    };
    queue.add(stringRequest);
}
}

```

Modifying Jokes/Stories

modify jokes_stories.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">

        <EditText
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:hint="Enter Title"
            android:id="@+id/edtTitle"
            android:textSize="18sp" />

        <Spinner
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:id="@+id/spCategory"
            android:entries="@array/category" />

        <EditText
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:hint="Enter Description"
            android:textSize="18sp"
            android:layout_margin="10dp"
            android:lines="5"
            android:id="@+id/edtDescription"
            android:gravity="start" />

        <Button
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:text="Update Data"
            android:id="@+id/btnUpdate" />

        <Button
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="10dp"
            android:text="Delete Data"
            android:id="@+id/btnDelete" />

    </LinearLayout>

```

ModifyJokesStories.java

```

public class ModifyJokesStories extends AppCompatActivity {
    EditText edtTitle, edtDescription;
    Spinner spCategory;
    Button btnUpdate, btnDelete;
    int id=0;
    String title="", category="", description="", url="";
    @Override
    protected void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.modify_jokes_stories);

        edtTitle=findViewById(R.id.edtTitle);
        edtDescription=findViewById(R.id.edtDescription);
        spCategory=findViewById(R.id.spCategory);
    }
}

```



```

        btnUpdate=findViewById(R.id.btnUpdate);
        btnDelete=findViewById(R.id.btnDelete);

        Intent intent=getIntent();
        id=intent.getIntExtra("id",0);
        title=intent.getStringExtra("title");
        category=intent.getStringExtra("category");
        description=intent.getStringExtra("description");

        edtTitle.setText(title);
        if(category.equals("Jokes"))
            spCategory.setSelection(1);
        else
            spCategory.setSelection(2);
        edtDescription.setText(description);

        btnUpdate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                title=edtTitle.getText().toString();
                category=spCategory.getSelectedItem().toString();
                description=edtDescription.getText().toString();
                url="http://10.0.2.2/myproject/updatedata.php";
                if(title.equals(""))
                    Toast.makeText(ModifyJokesStories.this,"Please Enter Title !",Toast.LENGTH_LONG).show();
                else if(category.equals("Select Category"))
                    Toast.makeText(ModifyJokesStories.this,"Please Select Category !",Toast.LENGTH_LONG).show();
                else if(description.equals(""))
                    Toast.makeText(ModifyJokesStories.this,"Please Enter Description !",Toast.LENGTH_LONG).show();
                else
                    submitData();
            }
        });

        btnDelete.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                url="http://10.0.2.2/myproject/deletedata.php";
                submitData();
            }
        });
    }

    public void submitData() {
        //Showing progress dialog
        final ProgressDialog progress=new ProgressDialog(this);
        progress.setMessage("Submitting... Please Wait...");
        progress.setCancelable(false);
        progress.show();

        RequestQueue queue = Volley.newRequestQueue(this);
        StringRequest stringRequest = new
            StringRequest(Request.Method.POST, url,
                new Response.Listener<String>() {
                    @Override
                    public void onResponse(String response) {

```

```

        Toast.makeText(ModifyJokesStories.this, response,
            Toast.LENGTH_LONG).show();
        progress.dismiss();
        finish();
    }
}, new Response.ErrorListener() {
    @Override
    public void onErrorResponse(VolleyError error) {
        Toast.makeText(ModifyJokesStories.this,
            error.toString(), Toast.LENGTH_LONG).show();
        progress.dismiss();
    }
}){
    //sending data to server
    @Override
    protected HashMap<String,String> getParams(){
        HashMap<String,String> params = new HashMap<>();
        params.put("id",String.valueOf(id));
        params.put("title",title);
        params.put("category",category);
        params.put("description",description);
        return params;
    }
};
queue.add(stringRequest);
}
}

```

Manifest File

AndroidManifest.xml

```

<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.raazu.jokesstories">

    <uses-permission android:name="android.permission.INTERNET"/>
    <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE"/>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">

        <activity android:name=".MainActivity" android:label="Dashboard">
            <intent-filter>
                <action android:name="android.intent.action.MAIN"/>
                <category android:name="android.intent.category.LAUNCHER"/>
            </intent-filter>
        </activity>

        <activity android:name=".Login" android:label="Login"/>
        <activity android:name=".AdminPanel" android:label="Admin
            Panel"/>
    </application>
</manifest>

```

```
<activity android:name=".ViewData"
          android:label="Jokes/Stories"/>

<activity android:name=".AddJokesStories" android:label="Create
          Jokes/Stories"/>
<activity android:name=".Description"
          android:label="Description"/>
<activity android:name=".ModifyJokesStories"
          android:label="Modify Jokes/Stories"/>

</application>
</manifest>
```

Gradle Build File

build.gradle

```
dependencies {
    implementation fileTree(dir: 'libs', include: ['*.jar'])
    implementation 'com.android.support:appcompat-v7:26.1.0'
    implementation 'com.android.volley:volley:1.1.1'
    implementation 'com.android.support:recyclerview-v7:26.1.0'
}
```

Lab Sheet Questions (Sample)

Following are the list of some topics on which student's can create their project on:

1. **Project Title:** Mobile Quiz Application

Features:

- Use of SQLite and remote server for data storage.
- Adding and modifying multiple choice questions by admin.
- Users can view 10 questions which will be available in random order and answer those questions.
- After submitting answers, finally users must be able to view score among those 10 questions.

2. **Project Title:** Diet and Health Monitoring Application

Features:

- Use of SQLite and remote server for data storage.
- Adding and modifying information related to diet and health by admin.
- Users must be able to view those added information.

3. **Project Title:** Mobile Attendance System

Features:

- Use of SQLite and remote server for data storage.
- An interface to enter the number of students in the classroom.
- Attendance marking and storage
- Generation of daily, weekly and monthly report.

4. **Project Title:** Food Ordering System for Hotel

Features:

- The number of tables present in the restaurants will be shown on one page.
- Food categorize
- No of Orders from the particular table stored in the database
- Generation of Bill

5. **Project Title:** Leave Management System for School/College

Features:

- Signup and login page for students.
- Students can add leave note using App.
- Admin can view leave notes.

6. **Project Title:** Blood Bank Management System

Features:

- Use of SQLite and remote server for data storage.
- Admin can add blood groups details (person name, address, gender, age, etc.)
- User can view those added information.
- Should implement search feature.

7. **Project Title:** Movie Ticket Booking App

Features:

- Admin can add movies, schedule, price and other informations.
- Users can view information related to movies.
- Rating of movie

8. **Project Title:** Scientific Calculator App

Features:

- Buttons or tab option for choosing functions
- text, numeric and special character display option
- Functions and methods for Calculation
- Results view option

9. **Project Title:** Chat-based App

Features:

- User login interface
- Show list of users
- Chat interface

10. **Project Title:** Online Voting System

Features:

- An online database to store Information
- Adding and manipulation of candidates
- User Login Authentication
- Interface for Voting
- Voting results

11. **Project Title:** Hotel Booking System

Features:

- Online database required
- User login
- Search option for place and hotels
- Booking and Cancelling option

12. **Project Title:** Dictionary App

Features:

- Use of SQLite and remote server for data storage.
- Add New Words
- Update New Words
- Delete Existing Words
- Easy Search Option