**Welcome on Screen**

**XML**

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:background="@color/green"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textColor="@color/red"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 android:shadowDx="1"  
 android:shadowDy="1"  
 android:shadowRadius="2"  
 android:text="@string/welcome\_to\_rk\_university"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**ParentActivity set**

<activity android:name=".MainActivity" android:parentActivityName=".MainActivity">  
 </activity>

**SetActionbar Name**

getSupportActionBar().setTitle("About");

getSupportActionBar().hide();

**Xml Design**

*<?*xml version="1.0" encoding="utf-8"*?>*<LinearLayout 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"  
 android:orientation="vertical"  
 android:padding="20dp"  
 android:background="@color/pink"  
 tools:context=".MainActivity">  
  
 <ImageView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:padding="5dp"  
 android:src="@drawable/facebook"/>  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textSize="26sp"  
 android:textStyle="bold"  
 android:padding="5dp"  
 android:layout\_gravity="center"  
 android:textColor="@color/black"  
 android:text="@string/\_21soeca21048"/>  
  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textStyle="normal"  
 android:text="@string/kishan"  
 android:padding="5dp"  
 android:textSize="20sp"  
 android:layout\_marginStart="20dp"  
 android:textColor="@color/black"/>  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textStyle="normal"  
 android:text="@string/vitthlbhai"  
 android:padding="5dp"  
 android:textSize="20sp"  
 android:layout\_marginStart="20dp"  
 android:textColor="@color/black"/>  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textStyle="normal"  
 android:text="@string/sakhiya"  
 android:padding="5dp"  
 android:textSize="20sp"  
 android:layout\_marginStart="20dp"  
 android:textColor="@color/black"/>  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textStyle="normal"  
 android:text="@string/email"  
 android:padding="5dp"  
 android:textSize="20sp"  
 android:layout\_marginStart="20dp"  
 android:textColor="@color/black"/>  
  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textStyle="normal"  
 android:text="@string/password"  
 android:padding="5dp"  
 android:textSize="20sp"  
 android:layout\_marginStart="20dp"  
 android:textColor="@color/black"/>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:orientation="horizontal"  
 android:layout\_height="wrap\_content">  
  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textStyle="normal"  
 android:text="@string/Gender"  
 android:padding="5dp"  
 android:textSize="20sp"  
 android:layout\_marginStart="20dp"  
 android:textColor="@color/black"/>  
  
  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textStyle="normal"  
 android:text="@string/city"  
 android:padding="5dp"  
 android:textSize="20sp"  
 android:layout\_marginStart="20dp"  
 android:textColor="@color/black"/>  
  
  
 </LinearLayout>  
  
</LinearLayout>

**XML desing for Login**

*<?*xml version="1.0" encoding="utf-8"*?>*<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
  
 <TextView  
 android:id="@+id/txtlogin"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="30dp"  
 android:text="@string/login\_here"  
 android:textColor="@color/purple\_500"  
 android:textSize="28sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:id="@+id/edtemail"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="10dp"  
 android:layout\_marginTop="80dp"  
 android:layout\_marginEnd="10dp"  
 android:hint="@string/enter\_email"  
 app:endIconMode="clear\_text"  
 app:helperText="ksakhiya622@gmail.com"  
 app:helperTextEnabled="true"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtlogin"  
 app:startIconContentDescription="Icon"  
 app:startIconDrawable="@drawable/ic\_email">  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:id="@+id/edtLemail"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content" />  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
  
 <com.google.android.material.textfield.TextInputLayout  
 android:id="@+id/edtpassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="10dp"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginEnd="10dp"  
 app:counterEnabled="true"  
 app:counterMaxLength="20"  
 app:errorEnabled="true"  
 android:hint="@string/enter\_password"  
 app:helperTextEnabled="true"  
 app:helperText="!#PIN38on"  
 app:endIconMode="password\_toggle"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/edtemail"  
 >  
  
 <com.google.android.material.textfield.TextInputEditText  
 android:id="@+id/edtLPassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:inputType="textPassword"/>  
  
 </com.google.android.material.textfield.TextInputLayout>  
  
  
 <Button  
 android:id="@+id/btnlogin"  
 style="@style/Widget.MaterialComponents.Button.OutlinedButton.Icon"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"  
 android:text="@string/click\_me"  
 app:icon="@drawable/ic\_login"  
 android:textAllCaps="false"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/edtpassword" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.java**

Button btnClick;  
EditText edtLEmail, edtLPassword;  
@Override  
protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
  
 btnClick = findViewById(R.id.*btnlogin*);  
 edtLEmail = findViewById(R.id.*edtLemail*);  
 edtLPassword = findViewById(R.id.*edtLPassword*);  
  
 btnClick.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
  
 String email = edtLEmail.getText().toString().trim();  
 String pass = edtLPassword.getText().toString();  
  
 if (email.equals("admin@gmail.com") && pass.equals("admin")){  
  
 Intent intent = new Intent(MainActivity.this, HomeActivity.class);  
 startActivity(intent);  
  
 }  
 else {  
 Toast.*makeText*(MainActivity.this, "Failed", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
}

**Splash screen java code**

**Splash.java**

TimerTask timerTask = new TimerTask() {  
 @Override  
 public void run() {  
 Intent intent = new Intent(SplashActivity.this,MainActivity.class);  
 startActivity(intent);  
  
 finish();  
 }  
};  
  
Timer timer = new Timer();  
timer.schedule(timerTask,2000);

**Validation in java file for login**

private static final Pattern *PASS\_P* = Pattern.*compile*(  
 "^(?=.\*[0-9])" +  
 "(?=.\*[a-z])" +  
 "(?=.\*[A-Z])" +  
 "(?=.\*[@#$%^&+=])" +  
 "(?=\\S+$).{4,}"+ *//not white space and minimum 4 character* "$");  
  
Button btnClick;  
EditText edtLEmail, edtLPassword;  
  
@Override  
protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 btnClick = findViewById(R.id.*btnlogin*);  
 edtLEmail = findViewById(R.id.*edtLemail*);  
 edtLPassword = findViewById(R.id.*edtLPassword*);  
  
  
 btnClick.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 String email = edtLEmail.getText().toString().trim();  
 String pass = edtLPassword.getText().toString();  
  
 if (email.equals("")){  
 Toast.*makeText*(MainActivity.this, "Filed is Empty", Toast.*LENGTH\_SHORT*).show();  
  
 }else if (pass.equals("")){  
 Toast.*makeText*(MainActivity.this, "Filed is Empty", Toast.*LENGTH\_SHORT*).show();  
 }else if(!Patterns.*EMAIL\_ADDRESS*.matcher(email).matches()){  
 Toast.*makeText*(MainActivity.this, "Email Not Match", Toast.*LENGTH\_SHORT*).show();  
 }else if (!*PASS\_P*.matcher(pass).matches()){  
 Toast.*makeText*(MainActivity.this, "Password is Weak", Toast.*LENGTH\_SHORT*).show();  
 }  
 else {  
 Intent intent = new Intent(MainActivity.this,WelcomeActivity.class);  
 startActivity(intent);  
 }  
 }  
 });

**Option Menu java file**

**XML for menu file**

*<?*xml version="1.0" encoding="utf-8"*?>*<menu xmlns:android="http://schemas.android.com/apk/res/android">  
 <item android:id="@+id/setting" android:title="Setting">Setting</item>  
 <item android:id="@+id/profile" android:title="Profile">Profile</item>  
</menu>

@Override  
public boolean onCreatePanelMenu(int featureId, @NonNull Menu menu) {  
 getMenuInflater().inflate(R.menu.*menus*,menu);  
 return super.onCreatePanelMenu(featureId, menu);  
 }  
  
@Override  
public boolean onOptionsItemSelected(@NonNull MenuItem item) {  
  
 int id = item.getItemId();  
  
 switch (id)  
 {  
 case R.id.*setting*:  
 Toast.*makeText*(this, "Setting Click", Toast.*LENGTH\_SHORT*).show();  
 break;  
  
 case R.id.*profile*:  
 Toast.*makeText*(this, "Profile Click", Toast.*LENGTH\_SHORT*).show();  
  
 break;  
 }  
 return super.onOptionsItemSelected(item);  
  
}

**Checkbox and radio button java code with another activity data send**

if(chkStatus.isChecked())  
 {  
 chk="Accept";  
 }  
 else  
 {  
*// Toast.makeText(HomeActivity.this, "Accept Condition", Toast.LENGTH\_SHORT).show();* chk="Denie";  
 }  
  
  
 int id = radioGroup.getCheckedRadioButtonId();  
 rdobtn = findViewById(id);  
 String tdo = rdobtn.getText().toString();  
  
 if(tdo.equals(""))  
 {  
 Toast.*makeText*(HomeActivity.this, "Please Select Gender", Toast.*LENGTH\_SHORT*).show();  
 return;  
 }  
  
 Intent intent = new Intent(HomeActivity.this, WelcomeActivity.class);  
 intent.putExtra("fname",valfname);  
 intent.putExtra("lname",vallname);  
 intent.putExtra("email",valemail);  
 intent.putExtra("gender",tdo);  
 intent.putExtra("city",valcity);  
 intent.putExtra("chk",chk);  
 startActivity(intent);  
 }

**Other Activity receive data**

Bundle bundle = getIntent().getExtras();  
String fname = bundle.getString("fname");  
String lname = bundle.getString("lname");  
String email = bundle.getString("email");  
String gender = bundle.getString("gender");  
String city = bundle.getString("city");  
String chk = bundle.getString("chk");  
  
txtData.setText(" "+fname+" "+lname+" "+email+" "+gender+" "+city+" "+chk);

**SharePreference in login screen**

**Splash screen code**

TimerTask timerTask = new TimerTask() {  
 @Override  
 public void run() {  
 SharedPreferences preferences = getSharedPreferences("login", *MODE\_PRIVATE*);  
 Boolean value = preferences.getBoolean("flag", false);  
  
 Log.*i*("value","Running Successful..");  
  
 Intent intent;  
  
 if (value) {  
 intent = new Intent(SplashActivity.this, HomeActivity.class);  
 } else {  
 intent = new Intent(SplashActivity.this, LoginActivity.class);  
  
 }  
 startActivity(intent);  
 finish();  
 }  
};  
  
Timer timer = new Timer();  
timer.schedule(timerTask, 2000);

**LoginActivity**

btnlogin.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 SharedPreferences preferences = getSharedPreferences("login",*MODE\_PRIVATE*);  
 SharedPreferences.Editor editor = preferences.edit();  
 editor.putBoolean("flag",true);  
 editor.commit();  
 Intent intent = new Intent(LoginActivity.this, HomeActivity.class);  
 startActivity(intent);  
 }  
});

**Logout activity**

btnlogout.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 SharedPreferences preferences = getSharedPreferences("login",*MODE\_PRIVATE*);  
 SharedPreferences.Editor editor = preferences.edit();  
 editor.putBoolean("flag",false);  
 editor.commit();  
 startActivity(new Intent(HomeActivity.this,LoginActivity.class));  
 finish();  
 }  
});

**Call Phone and SMS send XML**

*<?*xml version="1.0" encoding="utf-8"*?>*<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <EditText  
 android:id="@+id/edtnumber"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="16dp"  
 android:layout\_marginLeft="16dp"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginEnd="16dp"  
 android:layout\_marginRight="16dp"  
 android:ems="10"  
 android:text="6353329149"  
 android:inputType="number"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/btncall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="24dp"  
 android:layout\_marginLeft="24dp"  
 android:layout\_marginTop="24dp"  
 android:layout\_marginEnd="24dp"  
 android:layout\_marginRight="24dp"  
 android:text="Call"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/edtnumber" />  
  
 <EditText  
 android:id="@+id/edtnumbersms"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="16dp"  
 android:layout\_marginLeft="16dp"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginEnd="16dp"  
 android:layout\_marginRight="16dp"  
 android:ems="10"  
 android:inputType="number"  
 android:text="6353329149"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/btncall" />  
  
 <EditText  
 android:id="@+id/edtsms"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="16dp"  
 android:layout\_marginLeft="16dp"  
 android:layout\_marginTop="16dp"  
 android:layout\_marginEnd="16dp"  
 android:layout\_marginRight="16dp"  
 android:ems="10"  
 android:inputType="number"  
 android:text="Hello"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/edtnumbersms" />  
  
 <Button  
 android:id="@+id/btnsms"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="24dp"  
 android:layout\_marginLeft="24dp"  
 android:layout\_marginTop="24dp"  
 android:layout\_marginEnd="24dp"  
 android:layout\_marginRight="24dp"  
 android:text="SMS"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/edtsms" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.java**

EditText edtphone,edtnumbersms,edtsms;  
 Button btncall,btnsms;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 edtphone = findViewById(R.id.*edtnumber*);  
 btncall = findViewById(R.id.*btncall*);  
 edtnumbersms = findViewById(R.id.*edtnumbersms*);  
 btnsms = findViewById(R.id.*btnsms*);  
 edtsms = findViewById(R.id.*edtsms*);  
  
 btncall.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 *// long number = Long.parseLong(edtphone.getText().toString().trim());* try{  
 Intent intent = new Intent();  
 intent.setAction(Intent.*ACTION\_CALL*);  
 intent.setData(Uri.*parse*("tel:"+edtphone.getText().toString().trim()));  
 startActivity(intent);  
 }catch (Exception e){  
 e.printStackTrace();  
 }  
 }  
 });  
  
 btnsms.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 if (Build.VERSION.*SDK\_INT* >= Build.VERSION\_CODES.*M*){  
 if(checkSelfPermission(Manifest.permission.*SEND\_SMS*) == PackageManager.*PERMISSION\_GRANTED*){  
 sendsms();  
 }else {  
 requestPermissions(new String[]{Manifest.permission.*SEND\_SMS*},1);  
 }  
 }  
 }  
 });  
 }  
  
 private void sendsms() {  
 String number = edtnumbersms.getText().toString().trim();  
 String sms = edtsms.getText().toString().trim();  
 try {  
 SmsManager smsManager = SmsManager.*getDefault*();  
 smsManager.sendTextMessage(number,null,sms,null,null);  
 Toast.*makeText*(this, "send SMS", Toast.*LENGTH\_SHORT*).show();  
 }catch (Exception e){  
 e.printStackTrace();  
 Toast.*makeText*(this, "Failed", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
}

**Listview**

**XML**

*<?*xml version="1.0" encoding="utf-8"*?>*<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <ListView  
 android:id="@+id/listView"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
</androidx.constraintlayout.widget.ConstraintLayout>

**Listview In java file**

ListView listView = findViewById(R.id.*listView*);  
  
String[] city = {  
 "Rajkot",  
 "Bharuch",  
 "Dang",  
 "Junagdh",  
 "Mahesana",  
 "Somanath",  
 "Sabarkatha",  
 "Banaskatha",  
 "Botad",  
 "Dahod",  
 "Surandranagar"  
};  
  
ArrayAdapter arrayAdapter = new ArrayAdapter(  
 this,  
 android.R.layout.*simple\_list\_item\_1*,  
 city);  
  
listView.setAdapter(arrayAdapter);

**CustomListView**

**Activity in xml**

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
 <ListView  
 android:id="@+id/listview"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
</androidx.constraintlayout.widget.ConstraintLayout>

**Item\_list activity create**

*<?*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="10dp">  
  
 <ImageView  
 android:id="@+id/myimg"  
 android:layout\_width="100dp"  
 android:layout\_height="100dp"  
 android:src="@color/purple\_500"/>  
  
 <TextView  
 android:id="@+id/txtcarname"  
 android:layout\_toRightOf="@id/myimg"  
 android:layout\_marginLeft="20dp"  
 android:layout\_marginTop="17dp"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="@style/TextAppearance.MaterialComponents.Headline6"  
 android:text="Car"/>  
  
 <TextView  
 android:id="@+id/txtcarcname"  
 android:layout\_toRightOf="@id/myimg"  
 android:layout\_marginLeft="20dp"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:maxLength="50"  
 android:layout\_marginTop="20dp"  
 android:singleLine="true"  
 android:layout\_below="@id/txtcarname"  
 android:textAppearance="@style/TextAppearance.MaterialComponents.Subtitle1"  
 android:text="Car"/>  
  
  
</RelativeLayout>

**MainActivity.java**

ListView listView;  
@Override  
protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 listView = findViewById(R.id.*listview*);  
  
  
 ArrayList<Car> arrayList = new ArrayList<>();  
  
 arrayList.add(new Car(R.drawable.*car1*,"Swift","Suzuki"));  
 arrayList.add(new Car(R.drawable.*car2*,"Verna","Honda"));  
 arrayList.add(new Car(R.drawable.*car3*,"Figo","Hundia"));  
 arrayList.add(new Car(R.drawable.*car4*,"i20","Hundia"));  
 arrayList.add(new Car(R.drawable.*car5*,"Ameze","Honda"));  
 arrayList.add(new Car(R.drawable.*car6*,"Aulto","Suzuki"));  
  
 CustomAdapter customAdapter = new CustomAdapter(this,R.layout.*list\_row*,arrayList);  
  
 listView.setAdapter(customAdapter);

**Createclass custom Adapter**

public class CustomAdapter extends ArrayAdapter<Car> {  
  
 private Context context;  
 private int resource;  
  
 public CustomAdapter(@NonNull Context context, int resource, @NonNull ArrayList<Car> objects) {  
 super(context, resource, objects);  
  
 this.context = context;  
 this.resource = resource;  
 }  
  
 @NonNull  
 @Override  
 public View getView(int position, @Nullable View convertView, @NonNull ViewGroup parent) {  
  
 LayoutInflater layoutInflater = LayoutInflater.*from*(context);  
  
 convertView = layoutInflater.inflate(resource,parent,false);  
  
 ImageView imageView = convertView.findViewById(R.id.*myimg*);  
  
 TextView txtcarname = convertView.findViewById(R.id.*txtcarname*);  
  
 TextView txtcarcname = convertView.findViewById(R.id.*txtcarcname*);  
  
 imageView.setImageResource(getItem(position).getImg());  
  
 txtcarname.setText(getItem(position).getCarname());  
  
 txtcarcname.setText(getItem(position).getCarcname());  
  
 return convertView;  
 }  
}

**Car class create in java**

public class Car{  
 int img;  
 String carname;  
 String carcname;  
  
 public Car(int img, String carname, String carcname) {  
 this.img = img;  
 this.carname = carname;  
 this.carcname = carcname;  
 }  
  
 public int getImg() {  
 return img;  
 }  
  
 public void setImg(int img) {  
 this.img = img;  
 }  
  
 public String getCarname() {  
 return carname;  
 }  
  
 public void setCarname(String carname) {  
 this.carname = carname;  
 }  
  
 public String getCarcname() {  
 return carcname;  
 }  
  
 public void setCarcname(String carcname) {  
 this.carcname = carcname;  
 }  
}

**Alert Dialog**

**MainActivity.java**

btnAlert = findViewById(R.id.*btnAlert*);  
  
AlertDialog.Builder builder = new AlertDialog.Builder(this);  
  
btnAlert.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 builder.setTitle("Title");  
 builder.setMessage("Message");  
 builder.setIcon(R.drawable.*ic\_icon*);  
  
 builder.setPositiveButton("yes", new DialogInterface.OnClickListener() {  
 @Override  
 public void onClick(DialogInterface dialog, int which) {  
 Log.*i*("mm","show Yes");  
 Toast.*makeText*(AlertDialogActivity.this, "Yes", Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
  
 builder.setNegativeButton("cancel", new DialogInterface.OnClickListener() {  
 @Override  
 public void onClick(DialogInterface dd, int which) {  
 dd.cancel();  
 Log.*i*("dialog","show cancel");  
  
 Toast.*makeText*(AlertDialogActivity.this, "Cancel", Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
  
 builder.setNeutralButton("done", new DialogInterface.OnClickListener() {  
 @Override  
 public void onClick(DialogInterface dialog, int which) {  
 Log.*i*("dialog","show neutral");  
  
 Toast.*makeText*(AlertDialogActivity.this, "Done", Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
  
 AlertDialog dialog = builder.create();  
 dialog.show();  
  
 }  
});

**Contex Menu**

**MainActivity.java**

ListView listView;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_contextmenu*);  
  
 listView = findViewById(R.id.*listview*);  
  
 String []name = {"Amit","Raj","Jay","Nirali","Kishan","Dhara","Devang"};  
  
 ArrayAdapter<String> adapter = new ArrayAdapter<String>(  
 ContextMenuActivity.this,  
 android.R.layout.*simple\_list\_item\_1*,  
 name  
 );  
  
 listView.setAdapter(adapter);  
  
 registerForContextMenu(listView);  
 }  
  
 @Override  
 public void onCreateContextMenu(ContextMenu menu, View v, ContextMenu.ContextMenuInfo menuInfo) {  
 super.onCreateContextMenu(menu, v, menuInfo);  
 MenuInflater inflater = getMenuInflater();  
 inflater.inflate(R.menu.*context\_menu*,menu);  
 menu.setHeaderTitle("Title");  
 }  
  
 @Override  
 public boolean onContextItemSelected(@NonNull MenuItem item) {  
*// return super.onContextItemSelected(item);* if (item.getItemId() == R.id.*sms*)  
 {  
 Toast.*makeText*(this, "SMS", Toast.*LENGTH\_SHORT*).show();  
 }else if (item.getItemId() == R.id.*call*){  
 Toast.*makeText*(this, "Call", Toast.*LENGTH\_SHORT*).show();  
 }  
  
 return true;  
 }

**Recycler view**

**XML main acitivy**

<androidx.recyclerview.widget.RecyclerView  
 android:id="@+id/rcview"  
 android:layout\_width="0dp"  
 android:layout\_height="0dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />

**XML Item\_list**

*<?*xml version="1.0" encoding="utf-8"*?>*<androidx.constraintlayout.widget.ConstraintLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
 <TextView  
 android:id="@+id/txtname"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="TextView"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainActivity.java**

ArrayList<User> list;  
 MyAdapter myAdapter;  
 RecyclerView recyclerView;  
 Context context;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
  
 recyclerView = findViewById(R.id.*rcview*);  
  
 myAdapter = new MyAdapter(list);  
  
 list = generateData();  
  
*// recyclerView.setLayoutManager(new LinearLayoutManager(this));* recyclerView.setAdapter(myAdapter);  
  
 myAdapter.notifyDataSetChanged();  
 }  
  
 private ArrayList<User> generateData() {  
 ArrayList<User> list = new ArrayList<User>();  
 list.add(new User("kishan"));  
 return list;  
 }

**MyAdpter.class**

public class MyAdapter extends RecyclerView.Adapter<MyAdapter.MyViewHolder>{  
  
 ArrayList<User> list;  
 public MyAdapter(ArrayList<User> list) {  
 this.list = list;  
 }  
  
 @NonNull  
 @Override  
 public MyViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType) {  
 LayoutInflater inflater = LayoutInflater.*from*(parent.getContext());  
 View view = inflater.inflate(R.layout.*itemlist*,parent,false);  
 return new MyViewHolder(view);  
 }  
  
 @Override  
 public void onBindViewHolder(@NonNull MyViewHolder holder, int position) {  
 holder.txtname.setText(list.get(position).getName());  
 }  
  
 @Override  
 public int getItemCount() {  
 return list.size();  
 }  
  
 public class MyViewHolder extends RecyclerView.ViewHolder{  
 TextView txtname;  
 public MyViewHolder(@NonNull View itemView) {  
 super(itemView);  
 txtname = itemView.findViewById(R.id.*txtname*);  
 }  
 }  
  
}

**User.class**

public class User {  
 private String name;  
  
 public User(String name) {  
 this.name = name;  
 }  
  
 public String getName() {  
 return name;  
 }  
  
 public void setName(String name) {  
 this.name = name;  
 }  
}

**jsonData**

**Same code as recyclar view and add new json code only**

ArrayList<String> formula = new ArrayList<>();  
 ArrayList<String> url = new ArrayList<>();  
  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 RecyclerView recyclerView = (RecyclerView) findViewById(R.id.*rcview*);  
 *// set a LinearLayoutManager with default vertical orientation* LinearLayoutManager linearLayoutManager = new LinearLayoutManager(getApplicationContext());  
 recyclerView.setLayoutManager(linearLayoutManager);  
  
 try {  
 *// get JSONObject from JSON file* JSONObject obj = new JSONObject(loadJSONFromAsset());  
 *// fetch JSONArray named users* JSONArray userArray = obj.getJSONArray("users");  
 *// implement for loop for getting users list data* for (int i = 0; i < userArray.length(); i++) {  
 *// create a JSONObject for fetching single user data* JSONObject userDetail = userArray.getJSONObject(i);  
 *// fetch email and name and store it in arraylist* formula.add(userDetail.getString("formula"));  
 url.add(userDetail.getString("url"));  
 *// create a object for getting contact data from JSONObject* }  
 } catch (JSONException e) {  
 e.printStackTrace();  
 }  
  
 *// call the constructor of CustomAdapter to send the reference and data to Adapter* UserAdapter customAdapter = new UserAdapter(MainActivity.this,formula,url);  
 recyclerView.setAdapter(customAdapter); *// set the Adapter to RecyclerView* }  
  
 private String loadJSONFromAsset() {  
 String json = null;  
 try {  
 InputStream is = getAssets().open("data.json");  
 int size = is.available();  
 byte[] buffer = new byte[size];  
 is.read(buffer);  
 is.close();  
 json = new String(buffer, "UTF-8");  
 } catch (IOException ex) {  
 ex.printStackTrace();  
 return null;  
 }  
 return json;  
 }  
  
  
}

**Database**

**Create a Connection class**

public class DatabaseConnection extends SQLiteOpenHelper {  
  
 private static final String *db\_name* = "college.db";  
  
 public DatabaseConnection(@Nullable Context context) {  
 super(context, *db\_name*, null, 1);  
 }  
  
 @Override  
 public void onCreate(SQLiteDatabase sqLiteDatabase) {  
 String qry = "create table student(id integer primary key autoincrement, name text, branch text)";  
 sqLiteDatabase.execSQL(qry);  
 }  
  
 public boolean insert\_data(String name, String branch) {  
 SQLiteDatabase db = this.getReadableDatabase();  
 ContentValues cv = new ContentValues();  
 cv.put("name", name);  
 cv.put("branch", branch);  
 long result = db.insert("student", null, cv);  
 if (result == -1) {  
 return false;  
 } else {  
 return true;  
 }  
 }  
  
 public boolean updateinfo(String name, String branch) {  
 SQLiteDatabase sqLiteDatabase = this.getWritableDatabase();  
 ContentValues contentValues = new ContentValues();  
 contentValues.put("branch", branch);  
  
 Cursor cursor = sqLiteDatabase.rawQuery("select \* from student where name=?", new String[]{name});  
  
 if (cursor.getCount() > 0) {  
 long result = sqLiteDatabase.update("student" ,contentValues,"name=?", new String[]{name});  
 if (result == -1)  
 return false;  
 else  
 return true;  
 }  
 else  
 return false;  
 }  
  
  
 public boolean deleteinfo(String name)  
 {  
 SQLiteDatabase sqLiteDatabase = this.getWritableDatabase();  
 Cursor cursor = sqLiteDatabase.rawQuery("delete from student where name=?",new String[] {name});  
 if (cursor.getCount()>0)  
 {  
 long result = sqLiteDatabase.delete("student", "name=?", new String[]{name});  
 if (result == -1)  
 return false;  
 else  
 return true;  
 }else {  
 return false;  
 }  
  
 }  
  
 @Override  
 public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {  
 sqLiteDatabase.execSQL("drop table if exists student");  
 }  
  
 public Cursor getInfo() {  
 SQLiteDatabase sqLiteDatabase = this.getWritableDatabase();  
 Cursor cursor = sqLiteDatabase.rawQuery("select \* from student ", null);  
 return cursor;  
 }  
}

**Mainactivity.java**

Button btninsert,btnview,btnupdate,btndelete;  
 EditText edtname, edtbranch;  
*// DatabaseConnection dbc;* @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 DatabaseConnection dc = new DatabaseConnection(this);  
*// dbc = new DatabaseConnection(this);  
  
// SQLiteDatabase sd = dc.getReadableDatabase();  
//* btninsert = findViewById(R.id.*btninsert*);  
 btnupdate = findViewById(R.id.*btnupdate*);  
 btndelete = findViewById(R.id.*btndelete*);  
 btnview = findViewById(R.id.*btnview*);  
 edtname = findViewById(R.id.*edtname*);  
 edtbranch = findViewById(R.id.*edtbranch*);  
  
  
 btninsert.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 String name = edtname.getText().toString();  
 String branch = edtbranch.getText().toString();  
  
 if(name.equals("") || branch.equals(""))  
 {  
 Toast.*makeText*(MainActivity.this, "Fill the Filed", Toast.*LENGTH\_SHORT*).show();  
 }  
 else  
 {  
 boolean ans = dc.insert\_data(name, branch);  
 if(ans == true)  
 {  
 Toast.*makeText*(MainActivity.this, "Success", Toast.*LENGTH\_SHORT*).show();  
 }  
 else  
 {  
 Toast.*makeText*(MainActivity.this, "Fail", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
  
  
 }  
 });  
  
 btnview.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
  
 Cursor cursor = dc.getInfo();  
  
 if(cursor.getCount()==0)  
 {  
 Toast.*makeText*(MainActivity.this, "Data Not Found", Toast.*LENGTH\_SHORT*).show();  
 }  
  
 StringBuffer stringBuffer = new StringBuffer();  
  
 while (cursor.moveToNext())  
 {  
 stringBuffer.append("Name is "+ cursor.getString(1)+"\n");  
 stringBuffer.append("Branch is "+ cursor.getString(2)+"\n\n");  
 }  
  
 AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);  
  
 builder.setCancelable(true);  
 builder.setTitle("Show");  
  
 builder.setMessage(stringBuffer.toString());  
 builder.show();  
  
 }  
 });  
  
 btndelete.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 String name = edtname.getText().toString();  
 Boolean result = dc.deleteinfo(name);  
 if (result == true)  
 Toast.*makeText*(MainActivity.this, "Delete", Toast.*LENGTH\_SHORT*).show();  
 else  
 Toast.*makeText*(MainActivity.this, "Not Delete", Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
  
 btnupdate.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 String name = edtname.getText().toString();  
 String branch = edtbranch.getText().toString();  
  
 Boolean b = dc.updateinfo(name,branch);  
  
 if(b == true)  
 Toast.*makeText*(MainActivity.this, "update", Toast.*LENGTH\_SHORT*).show();  
 else  
 Toast.*makeText*(MainActivity.this, "Not update", Toast.*LENGTH\_SHORT*).show();  
 }  
 });  
 }  
}

**Snackbar**

**Method 1**

Snackbar.make(findViewById(R.id.root\_layout), result, Snackbar.LENGTH\_LONG)

.setAction("Dismiss", new View.OnClickListener() {

@Override

public void onClick(View v) {

}

}).show();

**Method 2**

final Snackbar snackBar = Snackbar.make(findViewById(android.R.id.content), "Snackbar Message", Snackbar.LENGTH\_LONG);

snackBar.setAction("Action Message", new View.OnClickListener() {

@Override

public void onClick(View v) {

// Call your action method here

snackBar.dismiss();

}

});

snackBar.show();

**Method 3**

Snackbar snackbar = Snackbar.make(relativeLayout, "Your Message", Snackbar.LENGTH\_INDEFINITE);

snackbar.setAction("dismiss", new View.OnClickListener() {

@Override

public void onClick(View v) {

snackbar.dismiss();

}

});

snackbar.show();