1. **Login Form**

<?*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/editText"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
  
 *android:layout\_marginStart*="20dp"  
 *android:layout\_marginTop*="108dp"  
 *android:ems*="10"  
 *android:inputType*="textPersonName"  
 *android:text* = "Enter Username"  
  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <EditText  
 *android:id*="@+id/editText1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_marginStart*="20dp"  
 *android:layout\_marginTop*="208dp"  
  
 *android:ems*="10"  
 *android:inputType*="textPassword"  
 *android:text*=" Enter Password"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <Button  
 *android:id*="@+id/button"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:text*="Sign Up"  
  
 *android:layout\_marginStart*="20dp"  
 *android:layout\_marginTop*="290dp"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent"/>  
  
 <TextView  
 *android:id*="@+id/textView1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:fontFamily*="sans-serif-medium"  
 *android:text*="Login Form"  
 *android:textSize*="34sp"  
 *android:layout\_marginStart*="115dp"  
 *android:layout\_marginTop*="20dp"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent"/>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

1. **UI Layouts -grid**

<?*xml version*="1.0" *encoding*="utf-8"?>  
  
  
<RelativeLayout  
 *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *tools:context*=".MainActivity"  
 *android:background*="@color/black">  
  
 <TextView  
 *android:id*="@+id/tex1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:fontFamily*="sans-serif-smallcaps"  
 *android:layout\_margin*="10dp"  
 *android:text*="Grid Layout"  
 *android:textColor*="#905066"  
 *android:textSize*="54dp">  
  
 </TextView>  
  
 <GridLayout  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:columnCount*="2"  
 *android:layout\_marginTop*="20dp"  
 *android:layout\_below*="@id/tex1">  
  
  
 <ImageButton  
 *android:id*="@+id/button2"  
 *android:layout\_width*="195dp"  
 *android:layout\_height*="150dp"  
 *android:layout\_row*="1"  
 *android:layout\_marginRight*="6dp"  
 *android:layout\_column*="0"  
 *android:layout\_marginLeft*="5dp"  
 *android:scaleType*="fitXY"  
 *android:src*="@drawable/mer1"  
 *android:text*="Mercedes">  
  
 </ImageButton>  
  
 <ImageButton  
 *android:id*="@+id/button2"  
 *android:layout\_width*="195dp"  
 *android:layout\_height*="150dp"  
 *android:layout\_row*="1"  
 *android:layout\_column*="1"  
 *android:layout\_marginLeft*="5dp"  
 *android:scaleType*="fitXY"  
 *android:src*="@drawable/mer"  
 *android:text*="Mercedes">  
  
 </ImageButton>  
  
 <Button  
 *android:id*="@+id/button1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_row*="0"  
 *android:layout\_rowWeight*="1"  
 *android:layout\_column*="0"  
 *android:layout\_columnWeight*="1"  
 *android:layout\_gravity*="fill"  
 *android:layout\_margin*="10dp"  
 *android:fontFamily*="sans-serif-medium"  
 *android:text*="Mercedes"  
 *android:textColor*="#9C27B0"  
 *app:backgroundTint*="#CFB9D2" />  
  
 <Button  
 *android:id*="@+id/button2"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_gravity*="fill"  
 *android:layout\_rowWeight*="1"  
 *android:layout\_columnWeight*="1"  
 *android:layout\_row*="0"  
 *android:layout\_column*="1"  
 *android:text*="Audi"  
 *android:fontFamily*="sans-serif-medium"  
 *android:layout\_margin*="10dp"  
 *android:textColor*="#9C27B0"  
 *app:backgroundTint*="#CFB9D2"/>  
  
 <Button  
 *android:id*="@+id/button3"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_row*="2"  
 *android:layout\_rowWeight*="1"  
 *android:layout\_column*="0"  
 *android:layout\_columnWeight*="1"  
 *android:layout\_gravity*="fill"  
 *android:layout\_margin*="10dp"  
 *android:fontFamily*="sans-serif-medium"  
 *android:text*="Rolls Royce"  
 *app:backgroundTint*="#AD637C" />  
  
 <Button  
 *android:id*="@+id/button4"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_row*="2"  
 *android:layout\_rowWeight*="1"  
 *android:layout\_column*="1"  
 *android:layout\_columnWeight*="1"  
 *android:layout\_gravity*="fill"  
 *android:layout\_margin*="10dp"  
 *android:fontFamily*="sans-serif-medium"  
 *android:text*="Lamborgini"  
 *android:textColor*="#FFFFFF"  
  
 *app:backgroundTint*="#AD637C" />  
  
 <Button  
 *android:id*="@+id/button5"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_gravity*="fill"  
 *android:layout\_rowWeight*="1"  
 *android:layout\_columnWeight*="1"  
 *android:layout\_row*="3"  
 *android:layout\_column*="0"  
 *android:text*="Ferrari"  
 *android:layout\_margin*="10dp"  
 *android:fontFamily*="sans-serif-medium"  
 *android:textColor*="#9C27B0"  
 *app:backgroundTint*="#CFB9D2"/>  
  
 <Button  
 *android:id*="@+id/button6"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_gravity*="fill"  
 *android:layout\_rowWeight*="1"  
 *android:layout\_columnWeight*="1"  
 *android:layout\_row*="3"  
 *android:layout\_column*="1"  
 *android:text*="BMW"  
 *android:layout\_margin*="10dp"  
 *android:textColor*="#9C27B0"  
 *android:fontFamily*="sans-serif-medium"  
 *app:backgroundTint*="#CFB9D2"/>  
  
  
 </GridLayout>  
  
  
</RelativeLayout>

1. **Table Layout**
2. <?*xml version*="1.0" *encoding*="utf-8"?>  
     
   <RelativeLayout  
    *xmlns:android*="http://schemas.android.com/apk/res/android"  
    *xmlns:app*="http://schemas.android.com/apk/res-auto"  
    *xmlns:tools*="http://schemas.android.com/tools"  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="match\_parent"  
    *android:background*="#CF9E9E"  
    *tools:context*=".MainActivity">  
     
    <TextView  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_marginLeft*="85dp"  
    *android:layout\_marginTop*="10dp"  
    *android:fontFamily*="@font/abril\_fatface"  
    *android:padding*="10dp"  
    *android:text*="Table Layout"  
    *android:textColor*="@color/teal\_200"  
    *android:textSize*="40dp" />  
     
    <TableLayout  
    *android:id*="@+id/TableLayout"  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_marginStart*="10dp"  
    *android:layout\_marginTop*="50dp"  
    *android:layout\_marginEnd*="10dp"  
    *android:layout\_marginBottom*="10dp">  
     
    <TableRow  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_marginTop*='20dp'>  
     
    </TableRow>  
     
    <TableRow  
    *android:layout\_width*="154dp"  
    *android:layout\_marginTop*='20dp'>  
     
    </TableRow>  
     
    <TableRow *android:layout\_marginTop*='20dp'>  
     
    <TextView  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="match\_parent"  
    *android:fontFamily*="cursive"  
    *android:padding*="10dp"  
    *android:text*="First Name :"  
    *android:textColor*="@color/black"  
    *android:textSize*="30dp" />  
     
    <EditText  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="match\_parent"  
    *android:layout\_marginRight*="20dp"  
    *android:ems*="20" />  
    </TableRow>  
     
    <TableRow *android:layout\_marginTop*='20dp'>  
     
    <TextView  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="match\_parent"  
    *android:fontFamily*="cursive"  
    *android:padding*="10dp"  
    *android:text*="Last Name :"  
    *android:textColor*="@color/black"  
    *android:textSize*="30dp" />  
     
    <EditText  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="match\_parent"  
    *android:layout\_marginRight*="30dp"  
    *android:ems*="20" />  
    </TableRow>  
     
    <TableRow *android:layout\_marginTop*='20dp'>  
     
    <TextView  
    *android:id*="@+id/textview"  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="match\_parent"  
    *android:fontFamily*="cursive"  
    *android:padding*="10dp"  
    *android:text*="Gender :"  
    *android:textColor*="@color/black"  
    *android:textSize*="30dp" />  
     
    <RadioGroup *android:orientation*="horizontal">  
     
    <RadioButton  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:checked*="true"  
    *android:text*="Male"  
    *android:textColor*="@color/teal\_200"  
    *android:textSize*="25dp" />  
     
    <RadioButton  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:checked*="false"  
    *android:text*="Female"  
    *android:textColor*="@color/teal\_200"  
    *android:textSize*="25dp" />  
     
    </RadioGroup>  
    </TableRow>  
     
     
    <TableRow *android:layout\_marginTop*='20dp'>  
     
    <TextView  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:fontFamily*="cursive"  
    *android:padding*="10dp"  
    *android:text*="Favourities"  
    *android:textColor*="@color/black"  
    *android:textSize*="30dp" />  
     
     
    <GridLayout  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:columnCount*="2">  
     
    <CheckBox  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:text*="Indian"  
    *android:textSize*="15dp" />  
     
    <CheckBox  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:checked*="true"  
    *android:text*="Mexican"  
    *android:textSize*="15dp" />  
    <CheckBox  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:checked*="true"  
    *android:text*="Chinese"  
    *android:textSize*="15dp" />  
     
    <CheckBox  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:text*="Italian"  
    *android:textSize*="15dp" />  
     
     
    <CheckBox  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:checked*="true"  
    *android:text*="Continental"  
    *android:textSize*="15dp" />  
     
    <CheckBox  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:checked*="true"  
    *android:text*="Spanish"  
    *android:textSize*="15dp" />  
    </GridLayout>  
    </TableRow>  
    </TableLayout>  
    <Button  
    *android:id*="@+id/submit"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_below*="@id/TableLayout"  
    *android:layout\_centerHorizontal*="true"  
    *android:layout\_marginTop*="10dp"  
    *android:text*="Submit"  
    *android:textSize*="20dp" />  
     
   </RelativeLayout>

***MainActivity:***

*package* com.example.tablelayout;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.content.Intent;  
*import* android.os.Bundle;  
*import* android.view.View;  
*import* android.widget.Button;  
  
*public class* MainActivity *extends* AppCompatActivity {  
 Button submit;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 submit = findViewById(R.id.***submit***);  
  
 submit.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 Intent iNext = *new* Intent(MainActivity.*this*,SecondActivity.*class*);  
 startActivity(iNext);  
 }  
 });  
 }  
}

***ActivitSecond.Xml:***

<?*xml version*="1.0" *encoding*="utf-8"?>  
  
<RelativeLayout *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:background*="#CF9E9E"  
 *tools:context*=".MainActivity">  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_marginLeft*="85dp"  
 *android:layout\_marginTop*="10dp"  
 *android:fontFamily*="@font/abril\_fatface"  
 *android:padding*="10dp"  
 *android:text*="Submitted"  
 *android:textColor*="@color/teal\_200"  
 *android:textSize*="40dp" />  
  
 <TableLayout  
 *android:id*="@+id/TableLayout"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_marginStart*="10dp"  
 *android:layout\_marginTop*="50dp"  
 *android:layout\_marginEnd*="10dp"  
 *android:layout\_marginBottom*="10dp">  
  
 <TableRow  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_marginTop*='20dp'>  
  
 </TableRow>  
  
 <TableRow  
 *android:layout\_width*="154dp"  
 *android:layout\_marginTop*='20dp'>  
  
 </TableRow>  
  
  
 <TableRow *android:layout\_marginTop*='20dp'>  
  
 <TextView  
 *android:id*="@+id/textview"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:fontFamily*="cursive"  
 *android:padding*="10dp"  
 *android:text*="Gender :"  
 *android:textColor*="@color/black"  
 *android:textSize*="30dp" />  
  
 <RadioGroup *android:orientation*="horizontal">  
  
 <RadioButton  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:checked*="true"  
 *android:text*="Male"  
 *android:textColor*="@color/teal\_200"  
 *android:textSize*="25dp" />  
  
 <RadioButton  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:checked*="false"  
 *android:text*="Female"  
 *android:textColor*="@color/teal\_200"  
 *android:textSize*="25dp" />  
  
 </RadioGroup>  
 </TableRow>  
  
  
 <TableRow *android:layout\_marginTop*='20dp'>  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:fontFamily*="cursive"  
 *android:padding*="10dp"  
 *android:text*="Favourities"  
 *android:textColor*="@color/black"  
 *android:textSize*="30dp" />  
  
  
 <GridLayout  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:columnCount*="2">  
  
 <CheckBox  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:text*="Indian"  
 *android:textSize*="15dp" />  
  
 <CheckBox  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:checked*="true"  
 *android:text*="Mexican"  
 *android:textSize*="15dp" />  
  
 <CheckBox  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:checked*="true"  
 *android:text*="Chinese"  
 *android:textSize*="15dp" />  
  
 <CheckBox  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:text*="Italian"  
 *android:textSize*="15dp" />  
  
  
 <CheckBox  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:checked*="true"  
 *android:text*="Continental"  
 *android:textSize*="15dp" />  
  
 <CheckBox  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:checked*="true"  
 *android:text*="Spanish"  
 *android:textSize*="15dp" />  
 </GridLayout>  
 </TableRow>  
  
 </TableLayout>  
  
 <Button  
 *android:id*="@+id/back"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_below*="@id/TableLayout"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="10dp"  
 *android:text*="Back"  
 *android:textSize*="20dp" />  
  
</RelativeLayout>

***Second Java:***

*package* com.example.tablelayout;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.content.Intent;  
*import* android.os.Bundle;  
*import* android.view.View;  
*import* android.widget.Button;  
  
*public class* SecondActivity *extends* AppCompatActivity {  
 Button back;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_second***);  
  
 back = findViewById(R.id.***back***);  
 back.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 Intent iback=*new* Intent(SecondActivity.*this*,MainActivity.*class*);  
 startActivity(iback);  
 }  
 });  
  
 }  
}

1. **Simple Calculator**
2. <?*xml version*="1.0" *encoding*="utf-8"?>  
   <RelativeLayout *xmlns:android*="http://schemas.android.com/apk/res/android"  
    *xmlns:app*="http://schemas.android.com/apk/res-auto"  
    *xmlns:tools*="http://schemas.android.com/tools"  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="match\_parent"  
    *android:background*="@color/black"  
    *android:hapticFeedbackEnabled*="false"  
    *tools:context*=".MainActivity">  
     
    <TextView  
    *android:id*="@+id/Cal"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_centerHorizontal*="true"  
    *android:layout\_marginStart*="30dp"  
    *android:layout\_marginTop*="30dp"  
    *android:layout\_marginEnd*="30dp"  
    *android:layout\_marginBottom*="20dp"  
    *android:fontFamily*="@font/abril\_fatface"  
    *android:text*="Calculator"  
    *android:textColor*="#A44767"  
    *android:textSize*="40dp">  
     
    </TextView>  
     
    <EditText  
    *android:id*="@+id/editText"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:textColor*="@color/white"  
    *android:layout\_marginLeft*="50dp"  
    *android:layout\_marginTop*="200dp"  
    *android:layout\_marginBottom*="20dp"  
    *android:backgroundTint*="@color/white"  
    *android:ems*="15">  
     
    </EditText>  
     
    <GridLayout  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_below*="@id/editText"  
    *android:layout\_marginStart*="20dp"  
    *android:layout\_marginTop*="20dp"  
    *android:layout\_marginEnd*="20dp"  
    *android:layout\_marginBottom*="20dp"  
    *android:columnCount*="4"  
    *android:rowCount*="4">  
     
    <Button  
    *android:id*="@+id/clear"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="AC"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#5B2236" />  
     
    <Button  
    *android:id*="@+id/percent"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="%"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#5B2236" />  
     
    <Button  
    *android:id*="@+id/dot"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="."  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#5B2236" />  
     
    <Button  
    *android:id*="@+id/btnmul"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="x"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#D1775B" />  
     
     
    <Button  
    *android:id*="@+id/num1"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="1"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/num2"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="2"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/num3"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="3"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/btndiv"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="÷"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#D1775B" />  
     
    <Button  
    *android:id*="@+id/num4"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="4"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/num5"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="5"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/num6"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="6"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/btnadd"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="+"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#D1775B" />  
     
    <Button  
    *android:id*="@+id/num7"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="7"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/num8"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="8"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/num9"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="9"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
    <Button  
    *android:id*="@+id/btnsub"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="-"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#D1775B" />  
     
    <Button  
    *android:id*="@+id/blank1"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:background*="#050505"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*=""  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#000000" />  
     
    <Button  
    *android:id*="@+id/num0"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="0"  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#C2597C" />  
     
     
    <Button  
    *android:id*="@+id/blank"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:background*="#050505"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*=""  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#050505" />  
     
     
    <Button  
    *android:id*="@+id/equalto"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_margin*="2dp"  
    *android:fontFamily*="sans-serif-black"  
    *android:text*="="  
    *android:textColor*="#FAFAFA"  
    *android:textSize*="25dp"  
    *app:backgroundTint*="#D1775B" />  
     
    </GridLayout>  
     
   </RelativeLayout>

**Java:**

*package* com.example.calculator;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.os.Bundle;  
*import* android.view.View;  
*import* android.widget.Button;  
*import* android.widget.EditText;  
  
*public class* MainActivity *extends* AppCompatActivity  
{  
 Button btn1,btn2,btn3,btn4,btn5,btn6,btn7,btn8,btn9,btn0;  
 Button add,sub,mul,div,equalto,percent,clear,dot;  
  
 EditText editText;  
  
 String opr;  
 Float num1,num2;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 btn1 = (Button) findViewById(R.id.***num1***);  
 btn2 = (Button) findViewById(R.id.***num2***);  
 btn3 = (Button) findViewById(R.id.***num3***);  
 btn4 = (Button) findViewById(R.id.***num4***);  
 btn5 = (Button) findViewById(R.id.***num5***);  
 btn6 = (Button) findViewById(R.id.***num6***);  
 btn7 = (Button) findViewById(R.id.***num7***);  
 btn8 = (Button) findViewById(R.id.***num8***);  
 btn9 = (Button) findViewById(R.id.***num9***);  
 btn0 = (Button) findViewById(R.id.***num0***);  
  
 editText = (EditText) findViewById(R.id.***editText***);  
  
 add = (Button) findViewById(R.id.***btnadd***);  
 sub = (Button) findViewById(R.id.***btnsub***);  
 mul = (Button) findViewById(R.id.***btnmul***);  
 div = (Button) findViewById(R.id.***btndiv***);  
  
 equalto = (Button) findViewById(R.id.***equalto***);  
 percent = (Button) findViewById(R.id.***percent***);  
 clear = (Button) findViewById(R.id.***clear***);  
 dot = (Button) findViewById(R.id.***dot***);  
  
  
*// Edittext on click* editText.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
  
 }  
 });  
  
  
 *// All 10 button on click* btn1.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"1");  
  
 }  
 });  
  
 btn2.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"2");  
  
 }  
 });  
  
 btn3.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"3");  
  
 }  
 });  
  
 btn4.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"4");  
  
 }  
 });  
  
 btn5.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"5");  
  
 }  
 });  
  
 btn6.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"6");  
  
 }  
 });  
  
 btn7.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"7");  
  
 }  
 });  
  
 btn8.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"8");  
  
 }  
 });  
  
 btn9.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"9");  
  
 }  
 });  
  
 btn0.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+"0");  
  
 }  
 });  
  
 dot.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(editText.getText()+".");  
  
 }  
 });  
  
  
 *// Add, sub, mul, div button on click* add.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 num1 = Float.*parseFloat*(editText.getText()+"");  
 opr ="add";  
 editText.setText(*null*);  
  
  
 }  
 });  
  
 sub.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 num1 = Float.*parseFloat*(editText.getText()+"");  
 opr ="sub";  
 editText.setText(*null*);  
  
  
 }  
 });  
  
 mul.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 num1 = Float.*parseFloat*(editText.getText()+"");  
 opr ="mul";  
 editText.setText(*null*);  
  
  
 }  
 });  
  
 div.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 num1 = Float.*parseFloat*(editText.getText()+"");  
 opr ="div";  
 editText.setText(*null*);  
  
 }  
 });  
  
 *// Percent, equalto, clear button* percent.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 num1 = Float.*parseFloat*(editText.getText()+"");  
 opr ="per";  
 editText.setText(*null*);  
  
 }  
 });  
  
 equalto.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 num2 = Float.*parseFloat*(editText.getText()+"");  
 *if*(opr=="add")  
 {  
 editText.setText(num1+num2+"");  
 }  
  
 *if*(opr=="sub")  
 {  
 editText.setText(num1-num2+"");  
 }  
  
 *if*(opr=="mul")  
 {  
 editText.setText(num1\*num2+"");  
 }  
  
 *if*(opr=="div")  
 {  
 editText.setText(num1/num2+"");  
 }  
  
 *if*(opr=="per")  
 {  
 editText.setText(num1/100+"");  
 }  
  
 }  
 });  
  
 clear.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 editText.setText(*null*);  
  
  
 }  
 });  
  
  
  
 }  
}

1. **Inten – Explicit & Implicit**

***First activity:***

<?*xml version*="1.0" *encoding*="utf-8"?>  
<RelativeLayout *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:background*="#9D4563"  
 *tools:context*=".MainActivity">  
  
 <TextView  
 *android:id*="@+id/tex1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="15dp"  
 *android:fontFamily*="@font/abril\_fatface"  
 *android:text*="Barbeque Nation"  
 *android:textColor*="@color/white"  
 *android:textSize*="35dp">  
  
 </TextView>  
  
 <TextView  
 *android:id*="@+id/tex2"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="100dp"  
 *android:fontFamily*="@font/allerta"  
 *android:text*="Book Table "  
 *android:textColor*="@color/white"  
 *android:textSize*="35dp">  
  
 </TextView>  
  
  
 <GridLayout  
 *android:id*="@+id/grid"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:layout\_below*="@id/tex1"  
 *android:layout\_marginTop*="120dp"  
 *android:layout\_marginRight*="20dp"  
 *android:layout\_marginLeft*="20dp"  
 *android:layout\_marginBottom*="20dp"  
 *android:columnCount*="2">  
  
 <EditText  
 *android:id*="@+id/EditText1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_column*="0"  
 *android:layout\_centerHorizontal*="true"  
 *android:ems*="30"  
 *android:fontFamily*="@font/almendra"  
 *android:hint*="First Name:"  
 *android:textColor*="@color/white"  
 *android:textColorHint*="@color/white"  
 *android:textSize*="20dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <EditText  
 *android:id*="@+id/EditText2"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_column*="0"  
 *android:fontFamily*="@font/almendra"  
 *android:textColorHint*="@color/white"  
 *android:textSize*="20dp"  
 *android:layout\_centerHorizontal*="true"  
 *android:ems*="30"  
 *android:hint*="Last Name:"  
 *android:textColor*="@color/white"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <EditText  
 *android:id*="@+id/EditText6"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_column*="0"  
 *android:fontFamily*="@font/almendra"  
 *android:textColorHint*="@color/white"  
 *android:textSize*="20dp"  
 *android:layout\_centerHorizontal*="true"  
 *android:ems*="30"  
 *android:hint*="Email:"  
 *android:textColor*="@color/white"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
  
  
 <EditText  
 *android:id*="@+id/EditText3"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_column*="0"  
 *android:layout\_centerHorizontal*="true"  
 *android:fontFamily*="@font/almendra"  
 *android:textColorHint*="@color/white"  
 *android:textSize*="20dp"  
 *android:ems*="30"  
 *android:hint*="No. of Pax: "  
 *android:textColor*="@color/white"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <EditText  
 *android:id*="@+id/EditText4"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_column*="0"  
 *android:fontFamily*="@font/almendra"  
 *android:textColorHint*="@color/white"  
 *android:textSize*="20dp"  
 *android:layout\_centerHorizontal*="true"  
 *android:ems*="30"  
 *android:hint*="City: "  
 *android:textColor*="@color/white"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <EditText  
 *android:id*="@+id/EditText5"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_column*="0"  
 *android:fontFamily*="@font/almendra"  
 *android:textColorHint*="@color/white"  
 *android:textSize*="20dp"  
 *android:layout\_centerHorizontal*="true"  
 *android:ems*="30"  
 *android:hint*="Cuisine Price: "  
 *android:textColor*="@color/white"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
  
 </GridLayout>  
  
  
  
 <Button  
 *android:id*="@+id/next"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="480dp"  
 *android:text*="Next"  
 *android:textColor*="@color/white"  
 *android:textSize*="25dp"  
 *app:backgroundTint*="#64253A"  
 *tools:ignore*="NotSibling">  
  
 </Button>  
  
 <Button  
 *android:id*="@+id/launch"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="550dp"  
 *android:text*="Launch Web Page"  
 *android:textColor*="@color/white"  
 *android:textSize*="25dp"  
 *app:backgroundTint*="#64253A"  
 *tools:ignore*="NotSibling">  
  
 </Button>  
  
  
  
</RelativeLayout>

***MainActivit.java:***

*package* com.example.intent;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.annotation.SuppressLint;  
*import* android.content.Intent;  
*import* android.net.Uri;  
*import* android.os.Bundle;  
*import* android.view.View;  
*import* android.widget.Button;  
*import* android.widget.EditText;  
  
*public class* MainActivity *extends* AppCompatActivity {  
 Button next,launch;  
 EditText name, uname,email, uid,bookt,bookp;  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 next = findViewById(R.id.***next***);  
 name = findViewById(R.id.***EditText1***);  
 uname = findViewById(R.id.***EditText2***);  
 uid = findViewById(R.id.***EditText3***);  
 bookt = findViewById(R.id.***EditText4***);  
 bookp = findViewById(R.id.***EditText5***);  
 email = findViewById(R.id.***EditText6***);  
 launch = findViewById(R.id.***launch***);  
  
  
 next.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 String pname = name.getText()+"";  
 String username = uname.getText().toString();  
 String em = email.getText().toString();  
 Integer id = Integer.*parseInt*(uid.getText().toString());  
 String bt = bookt.getText().toString();  
 Float bpr = Float.*parseFloat*(bookp.getText().toString());  
  
 Intent inext = *new* Intent(MainActivity.*this*,SecondActivity.*class*);  
 inext.putExtra("name",pname);  
 inext.putExtra("uname",username);  
 inext.putExtra("email", em);  
 inext.putExtra("uid",id);  
 inext.putExtra("bookt",bt);  
 inext.putExtra("bookp",bpr);  
 startActivity(inext);  
 }  
 });  
  
 launch.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 Intent iLaunch = *new* Intent(Intent.***ACTION\_VIEW***, Uri.*parse*("https://www.barbequenation.com/"));  
 startActivity(iLaunch);  
 }  
 });  
 }  
}

***Second Activity:***

<?*xml version*="1.0" *encoding*="utf-8"?>  
<RelativeLayout *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:background*="#5DAF60"  
 *tools:context*=".MainActivity">  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="15dp"  
 *android:fontFamily*="@font/abril\_fatface"  
 *android:text*="Submit page"  
 *android:textColor*="@color/black"  
 *android:textSize*="40dp">  
  
 </TextView>  
  
 <GridLayout  
 *android:id*="@+id/grid"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:layout\_marginTop*="120dp"  
 *android:layout\_marginRight*="20dp"  
 *android:layout\_marginLeft*="20dp"  
 *android:layout\_marginBottom*="20dp"  
 *android:columnCount*="1">  
  
 <TextView  
 *android:id*="@+id/Text1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_column*="0"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_margin*="10dp"  
 *android:fontFamily*="sans-serif-medium"  
 *android:text*="First Name: "  
 *android:textSize*="20dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <TextView  
 *android:id*="@+id/Text2"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:fontFamily*="sans-serif-medium"  
 *android:layout\_column*="0"  
 *android:text*="Last Name: "  
 *android:textSize*="20dp"  
 *android:layout\_margin*="10dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <TextView  
 *android:id*="@+id/Text6"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:fontFamily*="sans-serif-medium"  
 *android:layout\_column*="0"  
 *android:text*="Phone No. : "  
 *android:textSize*="20dp"  
 *android:layout\_margin*="10dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <TextView  
 *android:id*="@+id/Text3"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:fontFamily*="sans-serif-medium"  
 *android:layout\_column*="0"  
 *android:text*="No. of Pax: "  
 *android:textSize*="20dp"  
 *android:layout\_margin*="10dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <TextView  
 *android:id*="@+id/Text4"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:fontFamily*="sans-serif-medium"  
 *android:layout\_column*="0"  
 *android:text*="City: "  
 *android:layout\_margin*="10dp"  
 *android:textSize*="20dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <TextView  
 *android:id*="@+id/Text5"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:fontFamily*="sans-serif-medium"  
 *android:layout\_column*="0"  
 *android:text*="Cuisine Price: "  
 *android:layout\_margin*="10dp"  
 *android:textSize*="20dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 </GridLayout>  
  
 <Button  
 *android:id*="@+id/back"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="420dp"  
 *android:text*="Back"  
 *android:textSize*="20dp"  
 *app:backgroundTint*="#64253A">  
  
 </Button>  
  
  
</RelativeLayout>

***SecondActivity.java:***

*package* com.example.intent;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.annotation.SuppressLint;  
*import* android.content.Intent;  
*import* android.os.Bundle;  
*import* android.view.View;  
*import* android.widget.Button;  
*import* android.widget.TextView;  
  
*public class* SecondActivity *extends* AppCompatActivity {  
 Button back;  
 TextView txtname,txtusername,txtema,txtuid,txtbook,txtprice;  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_second***);  
  
 txtname = findViewById(R.id.***Text1***);  
 txtusername = findViewById(R.id.***Text2***);  
 txtema = findViewById(R.id.***Text6***);  
 txtuid = findViewById(R.id.***Text3***);  
 txtbook = findViewById(R.id.***Text4***);  
 txtprice = findViewById(R.id.***Text5***);  
  
  
 String pname = getIntent().getStringExtra("name");  
 String username = getIntent().getStringExtra("uname");  
 String em = getIntent().getStringExtra("email");  
 Integer id = getIntent().getIntExtra("uid",0);  
 String bt = getIntent().getStringExtra("bookt");  
 Float bpr = getIntent().getFloatExtra("bookp",0);  
  
 txtname.setText("Name: " + pname);  
 txtusername.setText("Username: " +username);  
 txtema.setText("Eamil ID : "+em);  
 txtuid.setText("No. of Pax: " + id);  
 txtbook.setText("City: " + bt);  
 txtprice.setText("Cuisine Price: " + bpr);  
  
  
 back = findViewById(R.id.***back***);  
  
 back.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 Intent iback = *new* Intent(SecondActivity.*this*,MainActivity.*class*);  
  
 startActivity(iback);  
 }  
 });  
 }  
}

1. **Broadcast Receiver**

<?*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"  
 *android:background*="#FFFFFE"  
 *tools:context*=".MainActivity">  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_margin*="10dp"  
 *android:background*="#66A668"  
 *android:fontFamily*="@font/almendra"  
 *android:text*="Battery Status window"  
 *android:textColor*="@color/white"  
 *android:textSize*="40dp"  
 *app:layout\_constraintBottom\_toBottomOf*="parent"  
 *app:layout\_constraintEnd\_toEndOf*="parent"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

**MainJava:**

*package* com.example.broadcastreceiver;  
  
 *import* androidx.appcompat.app.AppCompatActivity;  
  
 *import* android.content.BroadcastReceiver;  
 *import* android.content.IntentFilter;  
 *import* android.os.Bundle;  
  
*public class* MainActivity *extends* AppCompatActivity {  
  
 BroadcastReceiver br;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 br = *new* BatteryReceiver();  
 IntentFilter iFilter = *new* IntentFilter("android.intent.action.BATTERY\_CHANGED");  
 registerReceiver(br,iFilter);  
 }  
}

**Broadcast Receiver:**

*package* com.example.broadcastreceiver;  
  
 *import* android.content.BroadcastReceiver;  
 *import* android.content.Context;  
 *import* android.content.Intent;  
 *import* android.widget.Toast;  
  
*public class* BatteryReceiver *extends* BroadcastReceiver {  
 @Override  
 *public void* onReceive(Context context, Intent intent) {  
 Toast.*makeText*(context, "Broadcast Message Received", Toast.***LENGTH\_SHORT***).show();  
  
 }  
}

1. **Audio App**

<?*xml version*="1.0" *encoding*="utf-8"?>  
  
<RelativeLayout *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:background*="#695292"  
 *tools:context*=".MainActivity">  
  
 <ImageView  
 *android:id*="@+id/image"  
 *android:layout\_width*="300dp"  
 *android:layout\_height*="150dp"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="100dp"  
 *android:background*="@drawable/logo"  
 *tools:ignore*="MissingConstraints"></ImageView>  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:fontFamily*="@font/aladin"  
 *android:text*="Music App"  
 *android:textColor*="@color/white"  
 *android:textSize*="75dp" />  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="290dp"  
 *android:fontFamily*="@font/alata"  
 *android:text*="Why This Kolaveri Di"  
 *android:textColor*="@color/white"  
 *android:textSize*="35dp" />  
  
 <ImageView  
 *android:id*="@+id/image1"  
 *android:layout\_width*="300dp"  
 *android:layout\_height*="150dp"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="350dp"  
 *android:background*="@drawable/kol"  
 *tools:ignore*="MissingConstraints"></ImageView>  
  
 <LinearLayout  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_below*="@id/image1"  
 *android:layout\_margin*="20dp"  
 *android:layout\_marginTop*="50dp"  
 *tools:ignore*="MissingConstraints">  
  
 <Button  
 *android:id*="@+id/Play"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_margin*="20dp"  
 *android:text*="Play">  
  
 </Button>  
  
 <Button  
 *android:id*="@+id/Pause"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_margin*="20dp"  
 *android:text*="Pause">  
 </Button>  
  
 <Button  
 *android:id*="@+id/Stop"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_margin*="20dp"  
 *android:text*="Stop">  
  
 </Button>  
  
 </LinearLayout>  
  
</RelativeLayout>

***Java:***

*package* com.example.audioplayer;  
  
 *import* androidx.appcompat.app.AppCompatActivity;  
  
 *import* android.media.MediaPlayer;  
 *import* android.os.Bundle;  
 *import* android.view.View;  
 *import* android.widget.Button;  
  
*public class* MainActivity *extends* AppCompatActivity {  
 Button play,pause,stop;  
 MediaPlayer mp;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 play= findViewById(R.id.***Play***);  
 pause=findViewById(R.id.***Pause***);  
 stop=findViewById(R.id.***Stop***);  
  
 mp = MediaPlayer.*create*(*this*,R.raw.***kolaveri***);  
  
 play.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) { mp.start();  
  
 }  
 });  
 pause.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) { mp.pause();  
  
 }  
 });  
 stop.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) { mp.stop();  
  
 }  
 });  
 }  
}

1. **Video App**

**Activity.xml:**

<?*xml version*="1.0" *encoding*="utf-8"?>  
<RelativeLayout  
 *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *tools:context*=".MainActivity"  
 *android:background*="@color/white">  
  
 <TextView  
 *android:id*="@+id/text"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="20dp"  
 *android:layout\_marginBottom*="20dp"  
 *android:fontFamily*="@font/abril\_fatface"  
 *android:text*="KGF Police Station Scene"  
 *android:textColor*="#A43D60"  
 *android:textSize*="30dp" />  
  
 <VideoView  
  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="400dp"  
 *android:layout\_margin*="10dp"  
 *android:id*="@+id/videoview"  
 *android:layout\_below*="@id/text">  
  
 </VideoView>  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="500dp"  
 *android:fontFamily*="@font/alata"  
 *android:text*="Video Player"  
 *android:textColor*="#A43D60"  
 *android:textSize*="35dp" />  
</RelativeLayout>

**Java:**

*package* com.example.videoplayer;  
  
 *import* androidx.appcompat.app.AppCompatActivity;  
  
 *import* android.os.Bundle;  
 *import* android.widget.MediaController;  
 *import* android.widget.VideoView;  
  
  
*public class* MainActivity *extends* AppCompatActivity {  
 VideoView vv;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 vv=findViewById(R.id.***videoview***);  
  
 String vPath ="android.resource://"+getPackageName()+"/raw/kgf";  
 vv.setVideoPath(vPath);  
 vv.start();  
 MediaController media=*new* MediaController(*this*);  
 vv.setMediaController(media);  
 }  
}

1. **Call & send an SMS**

<?*xml version*="1.0" *encoding*="utf-8"?>  
<manifest *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:tools*="http://schemas.android.com/tools">  
  
 <uses-permission *android:name*="android.permission.SEND\_SMS"/>  
 <uses-permission *android:name*="android.permission.CALL\_PHONE"/>

***Acticity.xml***

<?*xml version*="1.0" *encoding*="utf-8"?>  
<RelativeLayout *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *android:background*="#A8385E"  
 *tools:context*=".MainActivity">  
  
 <TextView  
 *android:id*="@+id/tex1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="15dp"  
 *android:fontFamily*="@font/abril\_fatface"  
 *android:text*="Send SMS Message "  
 *android:textColor*="@color/white"  
 *android:textSize*="40dp">  
  
 </TextView>  
  
  
 <EditText  
 *android:id*="@+id/phone"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginLeft*="20dp"  
 *android:layout\_marginRight*="20dp"  
 *android:layout\_marginTop*="150dp"  
 *android:ems*="30"  
 *android:hint*="Phone No:"  
 *android:textColorHint*="@color/white"  
 *android:textColor*="@color/white"  
 *android:textSize*="25dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <EditText  
 *android:id*="@+id/message"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="100dp"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginLeft*="20dp"  
 *android:layout\_marginRight*="20dp"  
 *android:layout\_marginTop*="250dp"  
 *android:ems*="30"  
 *android:hint*="Text Message Here"  
 *android:inputType*="textLongMessage"  
 *android:textColor*="@color/white"  
 *android:textColorHint*="@color/white"  
 *android:textSize*="25dp"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <Button  
 *android:id*="@+id/btn1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_below*="@id/message"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="45dp"  
 *android:textColor*="@color/black"  
 *android:textSize*="20dp"  
 *android:text*="Send SMS"  
 *app:backgroundTint*="#539956">  
  
 </Button>  
  
 <Button  
 *android:id*="@+id/btn2"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_below*="@id/btn1"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="10dp"  
 *android:textColor*="@color/black"  
 *android:textSize*="20dp"  
 *android:text*="Make a Call"  
 *app:backgroundTint*="#539956">  
  
 </Button>  
  
</RelativeLayout>

***Java:***

*package* com.example.sendsms;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.Manifest;  
*import* android.annotation.SuppressLint;  
*import* android.content.Intent;  
*import* android.content.pm.PackageManager;  
*import* android.net.Uri;  
*import* android.os.Build;  
*import* android.os.Bundle;  
*import* android.telephony.SmsManager;  
*import* android.view.View;  
*import* android.widget.Button;  
*import* android.widget.EditText;  
*import* android.widget.Toast;  
  
*public class* MainActivity *extends* AppCompatActivity {  
  
 Button b1,b2;  
 EditText phn,msg;  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 b1 = findViewById(R.id.***btn1***);  
 b2 = findViewById(R.id.***btn2***);  
 phn = findViewById(R.id.***phone***);  
 msg = findViewById(R.id.***message***);  
  
 b1.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
  
 String phoneNo = phn.getText().toString().trim();  
 String message = msg.getText().toString().trim();  
  
 *if*(Build.VERSION.***SDK\_INT*** >= Build.VERSION\_CODES.***M***)  
 {  
 *if* (checkSelfPermission(Manifest.permission.***SEND\_SMS***) == PackageManager.***PERMISSION\_GRANTED***)  
 {  
 SmsManager smsManager = SmsManager.*getDefault*();  
 smsManager.sendTextMessage(phoneNo,*null*,message,*null*,*null*);  
 Toast.*makeText*(MainActivity.*this*, "Message Sent", Toast.***LENGTH\_SHORT***).show();  
 }  
 *else* {  
 String[] permission = {Manifest.permission.***SEND\_SMS***};  
 requestPermissions(permission,1);  
 }  
 }  
 }  
 });  
  
 b2.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
  
 String phoneNo\_call = phn.getText().toString().trim();  
  
 *if*(Build.VERSION.***SDK\_INT*** >= Build.VERSION\_CODES.***M***)  
 {  
 *if* (checkSelfPermission(Manifest.permission.***CALL\_PHONE***) == PackageManager.***PERMISSION\_GRANTED***)  
 {  
 Intent i = *new* Intent(Intent.***ACTION\_CALL***);  
 i.setData(Uri.*parse*("tel: " +phoneNo\_call));  
 startActivity(i);  
 }  
 *else* {  
 String[] permission = {Manifest.permission.***CALL\_PHONE***};  
 requestPermissions(permission,1);  
 }  
 }  
  
 }  
 });  
 }  
}

1. **Convert Text to speech**

<?*xml version*="1.0" *encoding*="utf-8"?>  
<manifest *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:tools*="http://schemas.android.com/tools">  
 <uses-permission *android:name*="android.permission.INTERNET" />

***Activity.xml:***

<?*xml version*="1.0" *encoding*="utf-8"?>  
<RelativeLayout  
 *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *tools:context*=".MainActivity">  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="20dp"  
 *android:fontFamily*="@font/abril\_fatface"  
 *android:text*="Text To Speech"  
 *android:textSize*="50dp"  
 *android:textColor*="@color/black"  
 *app:layout\_constraintBottom\_toBottomOf*="parent"  
 *app:layout\_constraintEnd\_toEndOf*="parent"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <EditText  
 *android:id*="@+id/Edit1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="120dp"  
 *android:layout\_marginRight*="20dp"  
 *android:layout\_marginLeft*="20dp"  
 *android:textSize*="20dp"  
 *android:ems*="30"  
 *android:hint*="Enter Text"/>  
  
 <Button  
 *android:id*="@+id/button1"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:text*="Click to Convert Text"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="200dp"  
 *android:textSize*="15dp"/>  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:text*="Speed"  
 *android:layout\_marginTop*="260dp"  
 *android:layout\_marginLeft*="20dp"  
 *android:textSize*="28dp"  
 *app:layout\_constraintBottom\_toBottomOf*="parent"  
 *app:layout\_constraintEnd\_toEndOf*="parent"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
 <SeekBar  
 *android:id*="@+id/seek"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="300dp"  
 *android:progress*="50" />  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:text*="Pitch"  
 *android:layout\_marginTop*="340dp"  
 *android:layout\_marginLeft*="20dp"  
 *android:textSize*="28dp"  
 *app:layout\_constraintBottom\_toBottomOf*="parent"  
 *app:layout\_constraintEnd\_toEndOf*="parent"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
 <SeekBar  
 *android:id*="@+id/seek1"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="380dp"  
 *android:progress*="50" />  
  
</RelativeLayout>

***Java:***

*package* com.example.texttospeech;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.os.Build;  
*import* android.os.Bundle;  
*import* android.speech.tts.TextToSpeech;  
*import* android.view.View;  
*import* android.widget.Button;  
*import* android.widget.EditText;  
*import* android.widget.SeekBar;  
  
*import* java.util.Locale;  
  
*public class* MainActivity *extends* AppCompatActivity {  
 EditText e1;  
 Button b1;  
 TextToSpeech ts;  
  
 SeekBar sk,sk1;  
  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 e1=findViewById(R.id.***Edit1***);  
  
 b1=findViewById(R.id.***button1***);  
  
 sk=findViewById(R.id.***seek***);  
 sk1 = findViewById(R.id.***seek1***);  
  
  
  
 ts = *new* TextToSpeech(getApplicationContext(), *new* TextToSpeech.OnInitListener() {  
 @Override  
 *public void* onInit(*int* i) {  
 ts.setLanguage(Locale.*getDefault*());  
 }  
 });  
  
 b1.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 String text=e1.getText().toString();  
  
 *if* (Build.VERSION.***SDK\_INT*** >= Build.VERSION\_CODES.***LOLLIPOP***) {  
 ts.speak(text,TextToSpeech.***QUEUE\_FLUSH***,*null*,*null*);  
 }  
  
 }  
 });  
 sk.setOnSeekBarChangeListener(*new* SeekBar.OnSeekBarChangeListener() {  
 @Override  
 *public void* onProgressChanged(SeekBar seekBar, *int* progress, *boolean* fromUser) {  
 *float* speechRate = (*float*) progress / 100.0f;  
 ts.setSpeechRate(speechRate);  
  
 }  
  
 @Override  
 *public void* onStartTrackingTouch(SeekBar seekBar) {}  
  
 @Override  
 *public void* onStopTrackingTouch(SeekBar seekBar) {}  
 });  
  
 sk1.setOnSeekBarChangeListener(*new* SeekBar.OnSeekBarChangeListener() {  
 @Override  
 *public void* onProgressChanged(SeekBar seekBar, *int* progress, *boolean* fromUser) {  
 *float* speechRate = (*float*) progress / 100.0f;  
 ts.setPitch(speechRate);  
  
 }  
  
 @Override  
 *public void* onStartTrackingTouch(SeekBar seekBar) {}  
  
 @Override  
 *public void* onStopTrackingTouch(SeekBar seekBar) {}  
 });  
  
 }  
 @Override  
 *protected void* onDestroy() {  
 *if* (ts != *null*) {  
 ts.stop();  
 ts.shutdown();  
 }  
 *super*.onDestroy();  
 }  
}

1. **Nearby location**

<?*xml version*="1.0" *encoding*="utf-8"?>  
<manifest *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:tools*="http://schemas.android.com/tools">  
  
 <uses-permission *android:name*="android.permission.ACCESS\_COARSE\_LOCATION"/>  
 <uses-permission *android:name*="android.permission.ACCESS\_FINE\_LOCATION"/>  
 <uses-permission *android:name*="android.permission.INTERNET"/>

***Activit.xml***

<?*xml version*="1.0" *encoding*="utf-8"?>  
<RelativeLayout  
 *xmlns:android*="http://schemas.android.com/apk/res/android"  
 *xmlns:app*="http://schemas.android.com/apk/res-auto"  
 *xmlns:tools*="http://schemas.android.com/tools"  
 *android:layout\_width*="match\_parent"  
 *android:layout\_height*="match\_parent"  
 *tools:context*=".MainActivity">  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="25dp"  
 *android:fontFamily*="@font/abril\_fatface"  
 *android:text*="Muskan Maps"  
 *android:textColor*="#D82F2F"  
 *android:textColorLink*="#A24545"  
 *android:textSize*="50dp"  
 *app:layout\_constraintBottom\_toBottomOf*="parent"  
 *app:layout\_constraintEnd\_toEndOf*="parent"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <TextView  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="150dp"  
 *android:fontFamily*="sans-serif"  
 *android:text*="Click Here to find the Location"  
 *android:textColor*="#59BF5D"  
 *android:textColorLink*="#4CAF50"  
 *android:textSize*="25dp"  
 *app:layout\_constraintBottom\_toBottomOf*="parent"  
 *app:layout\_constraintEnd\_toEndOf*="parent"  
 *app:layout\_constraintStart\_toStartOf*="parent"  
 *app:layout\_constraintTop\_toTopOf*="parent" />  
  
 <Button  
 *android:id*="@+id/button"  
 *android:layout\_width*="wrap\_content"  
 *android:layout\_height*="wrap\_content"  
 *android:layout\_marginTop*="250dp"  
 *android:text*="Location"  
 *android:layout\_centerHorizontal*="true"/>  
  
 <ImageView  
 *android:layout\_width*="262dp"  
 *android:layout\_height*="333dp"  
 *android:layout\_centerHorizontal*="true"  
 *android:layout\_marginTop*="300dp"  
 *android:maxWidth*="10dp"  
 *android:src*="@drawable/mm" />  
  
  
</RelativeLayout>

***Java:***

*package* com.example.nearlocation;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.content.Intent;  
*import* android.net.Uri;  
*import* android.os.Bundle;  
*import* android.view.View;  
*import* android.widget.Button;  
  
*public class* MainActivity *extends* AppCompatActivity {  
  
 Button btn1;  
  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
  
 btn1 = findViewById(R.id.***button***);  
  
 btn1.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View view) {  
 Uri uri= Uri.*parse*("geo:https://www.google.com/maps?q="+Uri.*encode*("19.8799° N, 75.3557° E"));  
 Intent i=*new* Intent(Intent.***ACTION\_VIEW***,uri);  
 i.setPackage("com.google.android.apps.maps");  
 startActivity(i);  
 }  
 });  
 }  
}

1. **Database**

***Activity.xml***

1. <?*xml version*="1.0" *encoding*="utf-8"?>  
   <RelativeLayout  
    *xmlns:android*="http://schemas.android.com/apk/res/android"  
    *xmlns:tools*="http://schemas.android.com/tools"  
    *android:layout\_width*="match\_parent"  
    *android:layout\_height*="match\_parent"  
    *android:background*="#D17D9A"  
    *tools:context*=".MainActivity">  
     
    <TextView  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_centerHorizontal*="true"  
    *android:layout\_marginTop*="25dp"  
    *android:text*="Database"  
    *android:textColor*="@color/white"  
    *android:textColorLink*="#A24545"  
    *android:textSize*="60dp" />  
     
    <EditText  
    *android:id*="@+id/rollno"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_centerHorizontal*="true"  
    *android:layout\_marginTop*="180dp"  
    *android:textColor*="@color/white"  
    *android:ems*="15"  
    *android:hint*="Roll No: "  
    *android:inputType*="number"  
    *android:textColorHint*="@color/black"  
    *android:textSize*="20dp" />  
     
    <EditText  
    *android:id*="@+id/name"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_centerHorizontal*="true"  
    *android:layout\_marginStart*="2dp"  
    *android:layout\_marginTop*="260dp"  
    *android:textColor*="@color/white"  
    *android:ems*="15"  
    *android:hint*="Name: "  
    *android:textColorHint*="@color/black"  
    *android:textSize*="20dp" />  
     
    <Button  
    *android:id*="@+id/button"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_below*="@id/name"  
    *android:layout\_marginLeft*="60dp"  
    *android:layout\_marginTop*="60dp"  
    *android:layout\_marginBottom*="264dp"  
    *android:backgroundTint*="#FFFFFF"  
    *android:textColor*="@color/black"  
    *android:text*="Insert"  
    *android:textSize*="18dp" />  
     
    <Button  
    *android:id*="@+id/button2"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_below*="@id/name"  
    *android:layout\_marginLeft*="250dp"  
    *android:layout\_marginTop*="60dp"  
    *android:text*="Select"  
    *android:backgroundTint*="#FFFFFF"  
    *android:textColor*="@color/black"  
    *android:textSize*="18dp" />  
     
    <Button  
    *android:id*="@+id/button3"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_below*="@id/name"  
    *android:layout\_marginLeft*="60dp"  
    *android:layout\_marginTop*="150dp"  
    *android:text*="Update"  
    *android:backgroundTint*="#FFFFFF"  
    *android:textColor*="@color/black"  
    *android:textSize*="18dp" />  
     
    <Button  
    *android:id*="@+id/button4"  
    *android:layout\_width*="wrap\_content"  
    *android:layout\_height*="wrap\_content"  
    *android:layout\_below*="@id/name"  
    *android:layout\_marginLeft*="250dp"  
    *android:layout\_marginTop*="150dp"  
    *android:text*="Delete"  
    *android:backgroundTint*="#FFFFFF"  
    *android:textColor*="@color/black"  
    *android:textSize*="18dp" />  
     
   </RelativeLayout>

***MainActivity.java:***

*package* com.example.database;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
  
*import* android.database.*Cursor*;  
*import* android.os.Bundle;  
*import* android.view.View;  
*import* android.widget.Button;  
*import* android.widget.EditText;  
*import* android.widget.Toast;  
  
*public class* MainActivity *extends* AppCompatActivity {  
 EditText rno,ename;  
 Button insert,select,update,delete;  
 @Override  
 *protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
  
 setContentView(R.layout.***activity\_main***);  
 rno = findViewById(R.id.***rollno***);  
 ename = findViewById(R.id.***name***);  
 insert = findViewById(R.id.***button***);  
 select = findViewById(R.id.***button2***);  
 update = findViewById(R.id.***button3***);  
 delete = findViewById(R.id.***button4***);  
 MyDatabase myDatabase = *new* MyDatabase(*this*);  
  
 insert.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View v) {  
 *int* rollno = Integer.*parseInt*(rno.getText().toString());  
 String name = ename.getText().toString();  
 myDatabase.openDB();  
 myDatabase.insertData(rollno,name);  
 Toast.*makeText*(getApplicationContext(), "Data Inserted", Toast.***LENGTH\_SHORT***).show();  
 myDatabase.closeDB();  
 }  
 });  
 select.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View v) {  
 myDatabase.openDB();  
 *Cursor* result = myDatabase.selectData();  
 *if*(result.getCount()==0)  
 {  
 Toast.*makeText*(MainActivity.*this*, "Data not Found", Toast.***LENGTH\_SHORT***).show();  
 }  
 *else*{  
 StringBuffer buffer = *new* StringBuffer();  
 *while*(result.moveToNext())  
 {  
 buffer.append("Roll No = "+result.getString(0)+"\n");  
 buffer.append("Name = "+result.getString(1)+"\n");  
  
 }  
 Toast.*makeText*(getApplicationContext(), buffer, Toast.***LENGTH\_SHORT***).show();  
 myDatabase.closeDB();  
 }  
  
 }  
 });  
 update.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View v) {  
 myDatabase.openDB();  
 *int* rollno = Integer.*parseInt*(rno.getText().toString());  
 String name = ename.getText().toString();  
 *int* isUpdated=myDatabase.updateData(rollno,name);  
 *if*(isUpdated>0)  
 {  
 Toast.*makeText*(MainActivity.*this*, "Data Updated", Toast.***LENGTH\_SHORT***).show();  
 }  
 *else* {  
 Toast.*makeText*(MainActivity.*this*, "Data not found", Toast.***LENGTH\_SHORT***).show();  
 }  
 myDatabase.closeDB();  
 }  
 });  
 delete.setOnClickListener(*new* View.OnClickListener() {  
 @Override  
 *public void* onClick(View v) {  
 *int* rollno = Integer.*parseInt*(rno.getText().toString());  
 myDatabase.openDB();  
 *int* delRows = myDatabase.deleteData(rollno);  
 *if*(delRows>0)  
 {  
 Toast.*makeText*(MainActivity.*this*, "Data Deleted", Toast.***LENGTH\_SHORT***).show();  
 }  
 *else* {  
 Toast.*makeText*(MainActivity.*this*, "Data not found", Toast.***LENGTH\_SHORT***).show();  
 }  
 myDatabase.closeDB();  
 }  
 });  
  
  
  
 }  
}

***MyDatabase:***

*package* com.example.database;  
  
*import* android.content.ContentValues;  
*import* android.content.Context;  
*import* android.database.*Cursor*;  
*import* android.database.sqlite.SQLiteDatabase;  
*import* android.database.sqlite.SQLiteOpenHelper;  
  
*import* androidx.annotation.Nullable;  
  
*import* java.util.Currency;  
  
*public class* MyDatabase *extends* SQLiteOpenHelper {  
 *private static final* String ***DATABASE\_NAME***="DB";  
 *private static final* String ***TABLE\_NAME***="Student";  
 SQLiteDatabase sqLiteDatabase;  
 *public* MyDatabase(@Nullable Context context) {  
 *super*(context, ***DATABASE\_NAME***, *null*,2);  
 }  
  
 @Override  
 *public void* onCreate(SQLiteDatabase sqLiteDatabase) {  
 sqLiteDatabase.execSQL("CREATE TABLE "+***TABLE\_NAME***+"(rollno integer,name text)");  
  
 }  
 *public void* openDB()  
 {  
 sqLiteDatabase = getWritableDatabase();  
 }  
 *public void* closeDB()  
 {  
 sqLiteDatabase.close();  
 }  
  
 *public void* insertData(*int* rollNo , String name)  
 {  
 ContentValues cv = *new* ContentValues();  
 cv.put("RollNo",rollNo);  
 cv.put("Name",name);  
 sqLiteDatabase.insert(***TABLE\_NAME***,*null*,cv);  
 }  
 *public Cursor* selectData()  
 {  
 *Cursor* cursor = sqLiteDatabase.rawQuery("select \* from "+***TABLE\_NAME***,*null*,*null*);  
 *return* cursor;  
 }  
 *public int* updateData(*int* no,String name)  
 {  
 ContentValues contentValues = *new* ContentValues();  
 contentValues.put("RollNo",no);  
 contentValues.put("Name",name);  
 *return* sqLiteDatabase.update(***TABLE\_NAME***,contentValues,"RollNo=?",*new* String[]{String.*valueOf*(no)});  
 }  
 *public int* deleteData(*int* no)  
 {  
 *return* sqLiteDatabase.delete(***TABLE\_NAME***,"RollNo=?",*new* String[]{String.*valueOf*(no)});  
 }  
  
  
  
  
  
 @Override  
 *public void* onUpgrade(SQLiteDatabase sqLiteDatabase, *int* i, *int* i1) {  
  
 }  
}