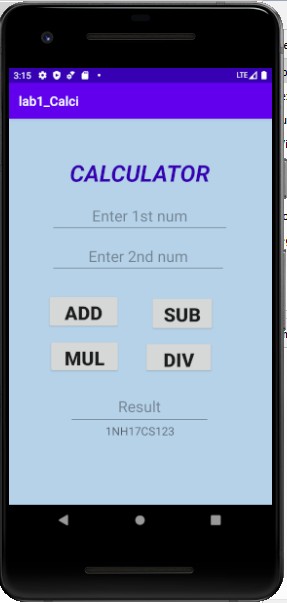
## PROGRAM NO.: 1

**QUESTION:** Develop an android application to perform operations of a simple calculator using buttons.

## OUTPUT SCREENSHOTS:



**XML CODE:**

*<?*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="#B6D2E8" tools:context=".MainActivity">

<TextView

android:id="@+id/textView" android:layout\_width="267dp" android:layout\_height="50dp"

android:text="CALCULATOR" android:textAlignment="center" android:textColor="@color/colorPrimaryDark" android:textSize="36sp" android:textStyle="bold|italic" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintHorizontal\_bias="0.498" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.109" />

<EditText

android:id="@+id/num1" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10"

android:hint="Enter 1st num" android:inputType="textPersonName" android:textAlignment="center" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.497" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.228" />

<EditText

android:id="@+id/num2" android:layout\_width="273dp" android:layout\_height="50dp" android:ems="10" android:hint="Enter 2nd num" android:inputType="textPersonName" android:textAlignment="center" android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.48" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.347" />

<Button

android:id="@+id/add\_bt" android:layout\_width="114dp" android:layout\_height="56dp" android:text="ADD" android:textAlignment="center" android:textSize="30sp" android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.204" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.499" tools:ignore="InvalidId" />

<Button

android:id="@+id/sub\_bt" android:layout\_width="100dp" android:layout\_height="57dp" android:text="SUB" android:textSize="30sp" android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.712" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.505" />

<Button

android:id="@+id/mul\_bt" android:layout\_width="112dp" android:layout\_height="55dp" android:text="MUL" android:textAlignment="center" android:textSize="30sp" android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.21" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.627" />

<Button

android:id="@+id/div\_bt" android:layout\_width="108dp" android:layout\_height="52dp" android:text="DIV" android:textAlignment="center" android:textSize="30sp" android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.7" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.629" />

<EditText

android:id="@+id/res" android:layout\_width="220dp" android:layout\_height="57dp" android:ems="10" android:hint="Result" android:inputType="number" android:textAlignment="center" android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.497" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.771" />

</androidx.constraintlayout.widget.ConstraintLayout>

## JAVA CODE:

**package** com.example.lab1\_calci;

**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 { EditText **num1**,**num2**,**res**;

Button **add\_bt**,**sub\_bt**,**mul\_bt**,**div\_bt**; @Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);

**num1** = (EditText) findViewById(R.id.***num1***); **num2** = (EditText) findViewById(R.id.***num2***); **res** = (EditText) findViewById(R.id.***res***); **add\_bt** = (Button) findViewById(R.id.***add\_bt***); **sub\_bt** = (Button) findViewById(R.id.***sub\_bt***); **mul\_bt** = (Button) findViewById(R.id.***mul\_bt***); **div\_bt** = (Button) findViewById(R.id.***div\_bt***);

**add\_bt**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View view) {

String v1 = **num1**.getText().toString(); String v2 = **num2**.getText().toString(); **int** a = Integer.*parseInt*(v1);

**int** b = Integer.*parseInt*(v2);

**int** c = a+b;

**res**.setText(c);

}

});

**sub\_bt**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View view) {

String v1 = **num1**.getText().toString(); String v2 = **num2**.getText().toString(); **int** a = Integer.*parseInt*(v1);

**int** b = Integer.*parseInt*(v2);

**int** c = a-b;

**res**.setText(c);

}

});

**mul\_bt**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View view) {

String v1 = **num1**.getText().toString(); String v2 = **num2**.getText().toString(); **int** a = Integer.*parseInt*(v1);

**int** b = Integer.*parseInt*(v2);

**int** c = a-b;

**res**.setText(c);

}

});

**div\_bt**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View view) {

String v1 = **num1**.getText().toString(); String v2 = **num2**.getText().toString(); **int** a = Integer.*parseInt*(v1);

**int** b = Integer.*parseInt*(v2);

**int** c = a-b;

**res**.setText(c);

}

});

}

}

## PROGRAM NO.: 2

**QUESTION:** Design and implement a single screen app that displays information about a small business.eg. Restaurant, Book shop etc. Your design must include:

* Business name
* Photo of business
* Contact information

## OUTPUT SCREENSHOTS:



**XML CODE:**

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)

xmlns:app[="http://schemas.android.com/apk/res](http://schemas.android.com/apk/res-auto)-[auto"](http://schemas.android.com/apk/res-auto) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" android:background="#E3B9EA" tools:context=".MainActivity">

<TextView

android:id="@+id/textView" android:layout\_width="231dp" android:layout\_height="49dp" android:text="PIZZA HUT" android:textAlignment="center" android:textColor="@android:color/holo\_red\_dark" android:textSize="36sp" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.074" />

<ImageView

android:id="@+id/imageView" android:layout\_width="330dp" android:layout\_height="198dp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.493" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.228" app:srcCompat="@drawable/pizzahut" />

<TextView

android:id="@+id/textView2" android:layout\_width="381dp" android:layout\_height="141dp"

android:text="Pizza Hut is an American restaurant chain and international franchise which was founded in 1958 in Wichita, Kansas by Dan and Frank Carney. The company is known for its Italian American cuisine menu, including pizza and pasta, as well as side dishes and desserts."

android:textAlignment="center" android:textColor="@android:color/holo\_red\_light" android:textSize="18sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.533" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.622" />

<TextView

android:id="@+id/textView3" android:layout\_width="217dp" android:layout\_height="102dp"

android:text="Soul Space Arena, 4th Flr, Mall · In Soul Space Arena Mall Open ⋅ Closes 10PM · 1800 202 2022"

android:textAlignment="center" android:textColor="@color/colorPrimaryDark"

android:textSize="18sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.788" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.852" />

</androidx.constraintlayout.widget.ConstraintLayout>

## JAVA CODE:

**package** com.example.lab2\_res;

**import** androidx.appcompat.app.AppCompatActivity;

**import** android.os.Bundle;

**public class** MainActivity **extends** AppCompatActivity { @Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);

}

}

## PROGRAM NO.: 3

**QUESTION:** Design and develop a Mobile App for smart phones The Easy Unit Converter using Android.

## OUTPUT SCREENSHOTS:



**XML CODE:**

*<?*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:id="@+id/screen1" android:layout\_width="match\_parent" android:layout\_height="match\_parent" android:background="#F9FAF6" tools:context=".MainActivity">

<TextView

android:id="@+id/textView2" android:layout\_width="357dp" android:layout\_height="55dp" android:text="@string/unit\_converter" android:textAlignment="center"

android:textAllCaps="false" android:textColor="@color/colorPrimaryDark" android:textSize="36sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintHorizontal\_bias="0.468" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.127" />

<TextView

android:id="@+id/textView" android:layout\_width="128dp" android:layout\_height="21dp" android:text="@string/\_1nh17cs123" android:textAlignment="center" android:textSize="18sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.104" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.043" />

<EditText

android:id="@+id/val" android:layout\_width="241dp" android:layout\_height="51dp" android:ems="10" android:hint="Enter number" android:inputType="textPersonName" android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.427" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.278" />

<EditText

android:id="@+id/res" android:layout\_width="242dp" android:layout\_height="53dp" android:ems="10" android:hint="@string/result" android:inputType="textPersonName" android:textAlignment="center"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.426" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.389" />

<RadioGroup

android:id="@+id/radgrp" android:layout\_width="275dp" android:layout\_height="184dp" app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.402" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.639">

<RadioButton

android:id="@+id/rb1" android:layout\_width="match\_parent" android:layout\_height="48dp" android:text="@string/cm\_to\_m" android:textAlignment="textStart" android:textSize="18sp" />

<RadioButton

android:id="@+id/rb2" android:layout\_width="match\_parent" android:layout\_height="44dp" android:text="@string/m\_to\_cm" android:textAlignment="textStart" android:textSize="18sp" />

<RadioButton

android:id="@+id/rb3" android:layout\_width="match\_parent" android:layout\_height="47dp" android:text="@string/feet\_to\_inch" android:textAlignment="textStart" android:textSize="18sp" tools:ignore="DuplicateIds" />

<RadioButton

android:id="@+id/rb4" android:layout\_width="match\_parent" android:layout\_height="44dp" android:text="@string/inch\_to\_feet" android:textSize="18sp" />

</**RadioGroup**>

<Button

android:id="@+id/conv\_bt" android:layout\_width="181dp" android:layout\_height="58dp" android:text="@string/convert" android:textAlignment="center" android:textSize="30sp" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.435" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.86" />

</androidx.constraintlayout.widget.ConstraintLayout>

## JAVA CODE:

**package** com.example.lab3\_unitcon;

**import** androidx.appcompat.app.AppCompatActivity;

**import** android.os.Bundle; **import** android.view.View; **import** android.widget.Button; **import** android.widget.EditText;

**import** android.widget.RadioButton;

**import** android.widget.Toast;

**public class** MainActivity **extends** AppCompatActivity { EditText **val**,**res**;

Button **conv\_bt**;

RadioButton **rb1**,**rb2**,**rb3**,**rb4**; @Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);

**val** = (EditText)findViewById(R.id.***val***);

**res** = (EditText)findViewById(R.id.***res***); **conv\_bt** = (Button)findViewById(R.id.***conv\_bt***); **rb1** = (RadioButton)findViewById(R.id.***rb1***); **rb2** = (RadioButton)findViewById(R.id.***rb2***); **rb3** = (RadioButton)findViewById(R.id.***rb3***); **rb4** = (RadioButton)findViewById(R.id.***rb4***);

**conv\_bt**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View v) {

String a = **val**.getText().toString(); **float** n = Float.*parseFloat*(a);

**float** c;

**if**(**rb1**.isChecked()) { c=n/100; **res**.setText(**"Result ="**+c);

}

**else if**(**rb2**.isChecked()) { c=n\*100; **res**.setText(**"Result ="**+c);

}

**else if**(**rb3**.isChecked()) { c=n\*12; **res**.setText(**"Result ="**+c);

}

**else if**(**rb4**.isChecked()) { c=n/12; **res**.setText(**"Result ="**+c);

}

}

});

}

}

## PROGRAM NO.: 4

**QUESTION:** Design and develop a Mobile App for smart phones Currency Converter.

## OUTPUT SCREENSHOTS:



**XML CODE:**

*<?*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="@android:color/holo\_purple" tools:context=".MainActivity">

<Spinner

android:id="@+id/sp1" android:layout\_width="311dp" android:layout\_height="61dp" android:entries="@array/sp\_list" android:textAlignment="center" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.473" />

<TextView

android:id="@+id/textView" android:layout\_width="373dp" android:layout\_height="61dp" android:text="CURRENCY CONVERTER" android:textAlignment="center" android:textSize="30sp"

android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.114" />

<TextView

android:id="@+id/textView2" android:layout\_width="183dp" android:layout\_height="43dp" android:text="Select Option:" android:textAlignment="viewStart" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.188" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.377" />

<Button

android:id="@+id/bt\_conv" android:layout\_width="151dp" android:layout\_height="57dp" android:text="CONVERT" android:textAlignment="center" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.47" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.578" />

<TextView

android:id="@+id/res\_tv" android:layout\_width="310dp" android:layout\_height="91dp" android:text="Result" android:textAlignment="center" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.747" />

<TextView

android:id="@+id/textView4" android:layout\_width="185dp" android:layout\_height="41dp" android:text="1NH17CS123" android:textAlignment="center" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.674" app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.908" />

<EditText

android:id="@+id/val" android:layout\_width="277dp" android:layout\_height="51dp" android:ems="10" android:hint="Enter amount:" android:inputType="textPersonName" android:textAlignment="center" android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.245" />

</androidx.constraintlayout.widget.ConstraintLayout>

## JAVA CODE:

**package** com.example.currencyconverter;

**import** androidx.appcompat.app.AppCompatActivity;

**import** android.os.Bundle; **import** android.view.View; **import** android.widget.Button; **import** android.widget.EditText; **import** android.widget.Spinner; **import** android.widget.TextView;

**public class** MainActivity **extends** AppCompatActivity { Spinner **sp1**;

TextView **res\_tv**; Button **bt\_conv**; EditText **val**;

@Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);

**sp1** = (Spinner)findViewById(R.id.***sp1***); **bt\_conv** = (Button)findViewById(R.id.***bt\_conv***); **res\_tv** = (TextView)findViewById(R.id.***res\_tv***); **val** = (EditText) findViewById(R.id.***val***);

**bt\_conv**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View view) {

**int** pos = **sp1**.getSelectedItemPosition(); String a = **val**.getText().toString(); **float** n = Float.*parseFloat*(a);

**float** res;

**if**(pos == 1)

{

res = n\*73;

**res\_tv**.setText(**"Result ="**+res);

}

**else if**(pos == 2)

{

res = n/73;

**res\_tv**.setText(**"Result ="**+res);

}

**else if**(pos == 3)

{

res = n\*95;

**res\_tv**.setText(**"Result ="**+res);

}

**else if**(pos == 4)

{

});

}

else

{

}

}

res = n/95;

**res\_tv**.setText(**"Result ="**+res);

Toast.*makeText*(getApplicationContext(),**"Please select option"**,Toast.***LENGTH\_LONG***).show();

}

}

* strings.xml

<resources>

<**string name="app\_name"**>Currency Converter</**string**>

<string-array name = "sp\_list">

<**item**> Select</**item**>

<**item**> USD to INR</**item**>

<**item**> INR to USD</**item**>

<**item**> GBP to INR</**item**>

<**item**> INR to GBP</**item**>

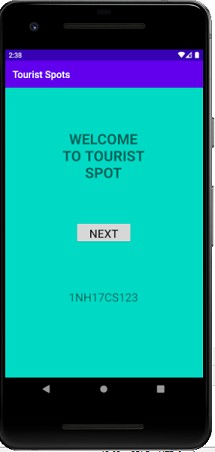
</string-array>

</**resources**>

## PROGRAM NO.: 5

**QUESTION:** Design an app for Tourist spot: With three activities, Welcome page, Display attractions of tourist spot and Webpage of the tourist spot

## OUTPUT SCREENSHOTS:





**XML CODE:**

* Main activity 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" android:background="?android:attr/textColorLinkInverse" tools:context=".MainActivity">

<TextView

android:id="@+id/textView" android:layout\_width="197dp" android:layout\_height="119dp" android:text="WELCOME TO TOURIST SPOT" android:textAlignment="center" android:textSize="30sp" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintHorizontal\_bias="0.498" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.178" />

<Button

android:id="@+id/nxt\_btn" android:layout\_width="118dp" android:layout\_height="48dp" android:text="Next" android:textAlignment="center" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/textView2" android:layout\_width="162dp" android:layout\_height="28dp" android:text="1NH17CS123" android:textAlignment="center" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.498" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.73" />

</androidx.constraintlayout.widget.ConstraintLayout>

* Home 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=".Home">

<TextView

android:id="@+id/textView3" android:layout\_width="326dp" android:layout\_height="73dp" android:text="Natural Tourist Spots in India" android:textAlignment="center" android:textColor="@color/colorPrimaryDark" android:textSize="24sp" android:textStyle="italic" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.496" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.087" />

<ImageView

android:id="@+id/andaman\_img" android:layout\_width="259dp" android:layout\_height="140dp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.565" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.236" app:srcCompat="@drawable/andaman" />

<ImageView

android:id="@+id/img\_jog" android:layout\_width="257dp" android:layout\_height="158dp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.558" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.532" app:srcCompat="@drawable/jog" />

<ImageView

android:id="@+id/img\_dal" android:layout\_width="261dp" android:layout\_height="162dp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.573" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.878" app:srcCompat="@drawable/dal" />

</androidx.constraintlayout.widget.ConstraintLayout>

## JAVA CODE:

* Main Java

**package** com.example.touristspots;

**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 **nxt\_btn**;

@Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);

**nxt\_btn** = (Button)findViewById(R.id.***nxt\_btn***);

**nxt\_btn**.setOnClickListener(**new** View.OnClickListener(){ @Override

**public void** onClick(View view) {

Intent i = **new** Intent(getApplicationContext(), Home.**class**); startActivity(i);

}

});

}

}

* Home java

**package** com.example.touristspots;

**import** androidx.appcompat.app.AppCompatActivity;

**import** android.content.Intent; **import** android.net.Uri; **import** android.os.Bundle; **import** android.view.View;

**import** android.widget.ImageView;

**import** android.widget.Toast;

**public class** Home **extends** AppCompatActivity { ImageView **img\_andaman**,**img\_jog**,**img\_dal**; @Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_home***);

**img\_andaman** = (ImageView)findViewById(R.id.***andaman\_img***); **img\_jog** = (ImageView)findViewById(R.id.***img\_jog***); **img\_dal** = (ImageView)findViewById(R.id.***img\_dal***);

**img\_andaman**.setOnClickListener(**new** View.OnClickListener(){ @Override

**public void** onClick(View view) {

Toast.*makeText*(getApplicationContext(),**"Andaman islands"**,Toast.***LENGTH\_SHORT***).show();

String url="https://en.wikipedia.org/wiki/Andaman\_and\_Nicobar\_Islands";

Intent i1 = **new** Intent(Intent.***ACTION\_VIEW***, Uri.*parse*(url)); startActivity(i1);

}

});

**img\_jog**.setOnClickListener(**new** View.OnClickListener(){ @Override

**public void** onClick(View view) {

Toast.*makeText*(getApplicationContext(),**"Jog falls "**,Toast.***LENGTH\_SHORT***).show();

String url=**"https://en.wikipedia.org/wiki/Jog\_Falls"**; Intent i2 = **new** Intent(Intent.***ACTION\_VIEW***, Uri.*parse*(url)); startActivity(i2);

}

});

**img\_dal**.setOnClickListener(**new** View.OnClickListener(){ @Override

**public void** onClick(View view) {

Toast.*makeText*(getApplicationContext(),**"Dal Lake "**,Toast.***LENGTH\_SHORT***).show();

String url=**"https://en.wikipedia.org/wiki/Dal\_Lake"**;

Intent i3 = **new** Intent(Intent.***ACTION\_VIEW***, Uri.*parse*(url)); startActivity(i3);

}

});

}

}

## MANIFEST FILE:

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

<manifest xmlns:android="<http://schemas.android.com/apk/res/android>"

package="com.example.touristspots">

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

<application

android:allowBackup="true" android:icon="@mipmap/ic\_launcher" android:label="@string/app\_name" android:roundIcon="@mipmap/ic\_launcher\_round" android:supportsRtl="true" android:theme="@style/AppTheme">

<activity android:name=".Home"></activity>

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</**activity**>

</**application**>

</**manifest**>

## PROGRAM NO.: 6

**QUESTION:** Design an android app play music in background

## OUTPUT SCREENSHOTS:



**XML CODE:**

*<?*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="@android:color/holo\_red\_light" tools:context=".MainActivity">

<TextView

android:layout\_width="324dp" android:layout\_height="50dp" android:text="Music Player" android:textAlignment="center" android:textColor="@color/colorPrimaryDark" android:textSize="30sp" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintHorizontal\_bias="0.462" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.054" />

<TextView

android:id="@+id/textView" android:layout\_width="168dp" android:layout\_height="37dp" android:text="1NH17CS123" android:textAlignment="center" android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.806" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.899" />

<Button

android:id="@+id/bt\_start" android:layout\_width="233dp" android:layout\_height="64dp" android:background="@android:color/holo\_green\_dark" android:text="START"

android:textSize="24sp" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.5" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />

<Button

android:id="@+id/bt\_stop" android:layout\_width="223dp" android:layout\_height="65dp" android:background="@android:color/holo\_red\_dark" android:text="STOP" android:textAlignment="center" android:textSize="24sp"

android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.498" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.625" />

<ImageView

android:id="@+id/imageView" android:layout\_width="195dp" android:layout\_height="190dp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.219" app:srcCompat="@drawable/i1" />

</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA CODE:**

# Main Activity Code

**package** com.example.bgmplayer;

**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 **implements**

View.OnClickListener {

**private** Button **bt\_start**,**bt\_stop**;

@Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***); **bt\_start** = (Button)findViewById(R.id.***bt\_start***); **bt\_stop** = (Button)findViewById(R.id.***bt\_stop***);

**bt\_start**.setOnClickListener((View.OnClickListener) **this**); **bt\_stop**.setOnClickListener((View.OnClickListener) **this**);

}

@Override

**public void** onClick(View view) {

**if** (view == **bt\_start**) {

*//starting service*

startService(**new** Intent(**this**, MediaService.**class**));

}

**else if** (view == **bt\_stop**) {

*// stopping service*

stopService(**new** Intent(**this**, MediaService.**class**));

}

}

}

# Media Service.java

**package** com.example.bgmplayer;

**import** android.app.Service; **import** android.content.Intent; **import** android.media.MediaPlayer; **import** android.os.IBinder;

**import** android.provider.Settings;

**import** androidx.annotation.Nullable;

**public class** MediaService **extends** Service {

**private** MediaPlayer **player**; @Nullable

@Override

**public** IBinder onBind(Intent intent) {

return null;

}

**public int** onStartCommand(Intent intent, **int** flags, **int** startId)

{

*//player = MediaPlayer.create(this, Settings.System.DEFAULT\_RINGTONE\_URI);*

**player** = MediaPlayer.*create*(**this**,R.raw.***song***);

**player**.setLooping(**true**);

*//staring the player*

**player**.start();

*stopped*

*//start sticky means service will be explicity started and*

**return *START\_STICKY***;

}

@Override

**public void** onDestroy() {

**super**.onDestroy();

*//stopping the player when service is destroyed player.stop();*

**player**.stop();

}

}

## MANIFEST FILE:

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

<manifest xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) package="com.example.bgmplayer">

<application

android:allowBackup="true" android:icon="@mipmap/ic\_launcher" android:label="@string/app\_name" android:roundIcon="@mipmap/ic\_launcher\_round" android:supportsRtl="true" android:theme="@style/AppTheme">

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</**activity**>

**<service android:name=".MediaService" />**

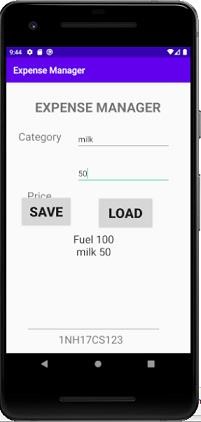
</**application**>

</**manifest**>

## PROGRAM NO.: 7

**QUESTION:** Design and develop a Mobile App for smart phones The Expense Manager using Android. The application should store all the expenses in a file

## OUTPUT SCREENSHOTS:



**XML CODE:**

*<?*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/textView3" android:layout\_width="322dp" android:layout\_height="61dp" android:text="EXPENSE MANAGER" android:textAlignment="center" android:textSize="30sp" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintHorizontal\_bias="0.496" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.063" />

<TextView

android:id="@+id/textView"

android:layout\_width="126dp" android:layout\_height="52dp" android:text="Category" android:textAlignment="center" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.045" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.189" />

<EditText

android:id="@+id/cat\_et" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10" android:inputType="textPersonName" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.781" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.186" />

<TextView

android:id="@+id/textView2" android:layout\_width="128dp" android:layout\_height="31dp" android:layout\_marginTop="236dp" android:text="Price" android:textAlignment="center" android:textAllCaps="false" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.038" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.0" />

<EditText

android:id="@+id/price\_et" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10" android:inputType="textPersonName" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.781" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.323" />

<Button

android:id="@+id/btn\_save" android:layout\_width="116dp" android:layout\_height="72dp" android:text="SAVE"

android:textSize="30sp" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.108" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.473" />

<Button

android:id="@+id/btn\_load" android:layout\_width="127dp" android:layout\_height="75dp" android:text="LOAD" android:textSize="30sp" android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.716" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.479" />

<EditText

android:id="@+id/res\_et" android:layout\_width="301dp" android:layout\_height="235dp" android:ems="10" android:gravity="start|top" android:inputType="textMultiLine" android:text="Result:" android:textAlignment="center" android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.409" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.877" />

<TextView

android:id="@+id/textView4" android:layout\_width="210dp" android:layout\_height="34dp" android:text="1NH17CS123" android:textAlignment="center" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.419" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.977" />

</androidx.constraintlayout.widget.ConstraintLayout>

## JAVA CODE:

**package** com.example.expensemanager;

**import** androidx.appcompat.app.AppCompatActivity;

**import** android.os.Bundle; **import** android.view.View; **import** android.widget.Button; **import** android.widget.EditText;

**import** java.io.BufferedReader;

**import** java.io.FileInputStream; **import** java.io.FileNotFoundException; **import** java.io.FileOutputStream; **import** java.io.IOException;

**import** java.io.InputStreamReader;

**public class** MainActivity **extends** AppCompatActivity { EditText **cat\_et**, **price\_et**, **res\_et**;

Button **btn\_save**, **btn\_load**; @Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);

**cat\_et** = (EditText)findViewById(R.id.***cat\_et***); **price\_et** = (EditText)findViewById(R.id.***price\_et***); **res\_et** = (EditText)findViewById(R.id.***res\_et***); **btn\_save** = (Button)findViewById(R.id.***btn\_save***); **btn\_load** = (Button)findViewById(R.id.***btn\_load***);

**btn\_save**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View view) {

String s1 = **cat\_et**.getText().toString(); String s2 = s1 + **" "** +

**price\_et**.getText().toString()+**"\n"**;

try {

FileOutputStream fos = openFileOutput(**"file1.txt"**,***MODE\_APPEND***);

fos.write(s2.getBytes());

} **catch** (FileNotFoundException e) { e.printStackTrace();

} **catch** (IOException e) { e.printStackTrace();

}

}

});

**btn\_load**.setOnClickListener(**new** View.OnClickListener(){ @Override

**public void** onClick(View view) {

**try**{

FileInputStream fis = openFileInput(**"file1.txt"**); InputStreamReader isr = **new** InputStreamReader(fis); BufferedReader br = **new** BufferedReader(isr); StringBuilder sb = **new** StringBuilder();

String text;

**while**((text=br.readLine())!=**null**)

{

sb.append(text); sb.append(**"\n"**);

}

**res\_et**.setText(sb.toString());

} **catch** (FileNotFoundException e) { e.printStackTrace();

} **catch** (IOException e) { e.printStackTrace();

}

}

});

}

}

## PROGRAM NO.: 8

**QUESTION:** Design and develop Health Monitoring App using Android. The app will store the blood pressure, blood group and glucose level of patient in SQLite database

## OUTPUT SCREENSHOTS:



**XML CODE:**

*<?*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="#998BD3F3" tools:context=".MainActivity">

<TextView

android:layout\_width="180dp" android:layout\_height="26dp" android:text="1NH17CS123" android:textAlignment="center" android:textSize="18sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintHorizontal\_bias="0.497" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.977" />

<TextView

android:id="@+id/textView" android:layout\_width="308dp" android:layout\_height="51dp"

android:text="HEALTH MONITOR" android:textAlignment="center" android:textColor="@color/colorPrimaryDark" android:textSize="30sp" android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.579" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.055" />

<TextView

android:id="@+id/textView2" android:layout\_width="124dp" android:layout\_height="22dp" android:text="Name" android:textAlignment="center" android:textSize="18sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.121" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.169" />

<TextView

android:id="@+id/textView3" android:layout\_width="99dp" android:layout\_height="32dp" android:text="Age" android:textAlignment="center" android:textSize="18sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.112" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.277" />

<TextView

android:id="@+id/textView4" android:layout\_width="99dp" android:layout\_height="30dp" android:text="HB level" android:textAlignment="center" android:textSize="18sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.112" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.345" />

<TextView

android:id="@+id/textView5" android:layout\_width="114dp" android:layout\_height="33dp" android:text="Blood Sugar"

android:textAlignment="center" android:textSize="18sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.117" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.425" />

<EditText

android:id="@+id/et\_name" android:layout\_width="199dp" android:layout\_height="42dp" android:ems="10" android:inputType="textPersonName"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.85" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.174" />

<EditText

android:id="@+id/et\_age" android:layout\_width="212dp" android:layout\_height="39dp" android:ems="10" android:inputType="textPersonName"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.869" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.27" />

<EditText

android:id="@+id/et\_hb" android:layout\_width="207dp" android:layout\_height="54dp" android:ems="10" android:inputType="textPersonName"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.835" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.349" />

<EditText

android:id="@+id/et\_sugar" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:ems="10" android:inputType="textPersonName" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.855" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.432" />

<Button

android:id="@+id/bt\_save" android:layout\_width="122dp" android:layout\_height="50dp" android:onClick="inserti" android:text="SAVE" android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.173" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.524" />

<Button

android:id="@+id/bt\_report" android:layout\_width="138dp" android:layout\_height="46dp" android:onClick="report" android:text="REPORT" android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.72" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.524" />

<TextView

android:id="@+id/tv\_op" android:layout\_width="355dp" android:layout\_height="205dp" android:text="Result:" android:textAlignment="center" android:textSize="18sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.813" />

</androidx.constraintlayout.widget.ConstraintLayout>

## JAVA CODE:

**package** com.example.healthmonitor;

**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.TextView;

**public class** MainActivity **extends** AppCompatActivity { DatabaseHelper **db**;

EditText **et\_name**; EditText **et\_age**; EditText **et\_hb**; EditText **et\_sugar**; Button **bt\_save**; Button **bt\_report**; TextView **tv\_op**;

@Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);

**db** = **new** DatabaseHelper(**this**);

**et\_name** = (EditText)findViewById(R.id.***et\_name***); **et\_age** = (EditText)findViewById(R.id.***et\_age***); **et\_hb** = (EditText)findViewById(R.id.***et\_hb***); **et\_sugar** = (EditText)findViewById(R.id.***et\_sugar***); **bt\_save** = (Button)findViewById(R.id.***bt\_save***); **bt\_report** = (Button)findViewById(R.id.***bt\_report***); **tv\_op** = (TextView)findViewById(R.id.***tv\_op***);

}

**public void** inserti (View view) {

**boolean** status = **db**.insert( **et\_name**.getText().toString(), Integer.*parseInt*(**et\_age**.getText().toString()), Integer.*parseInt*(**et\_hb**.getText().toString()),

Integer.*parseInt*(**et\_sugar**.getText().toString()));

}

**public void** report(View view) { Cursor c = **db**.select();

**if** (c.getCount() ==0)

return;

StringBuffer buf = **new** StringBuffer();

**while** (c.moveToNext()) {

buf.append (**"Name: "**+c.getString(1)); buf.append (**" Age: "**+c.getString(2)); buf.append (**" Hemoglobin: "**+c.getString(3)); buf.append (**" Sugar: "**+c.getString(4)); buf.append(**"\n"**);

}

**tv\_op**.setText(buf);

}

**public void** cleartext (View view) { **et\_name**.setText(**""**); **et\_age**.setText(**""**);

**et\_hb**.setText(**""**); **et\_sugar**.setText(**""**);

}

}

## DATA BASE:

**package** com.example.healthmonitor;

**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;

**public class** DatabaseHelper **extends** SQLiteOpenHelper { DatabaseHelper (Context context) {

**super**(context, **"Health.db"**, **null**, 1);

}

**public void** onCreate (SQLiteDatabase sqLiteDatabase) { sqLiteDatabase.execSQL(**"CREATE TABLE LAB ( PATID integer PRIMARY**

KEY AUTOINCREMENT, PANAME TEXT, AGE INTEGER, HM INTEGER, SUGAR INTEGER

**);"**);

}

@Override

**public void** onUpgrade(SQLiteDatabase sqLiteDatabase, **int** i, **int** i1)

{

sqLiteDatabase.execSQL(**"DROP TABLE IF EXISTS LAB "**); onCreate(sqLiteDatabase);

}

**public boolean** insert (String name, **int** age, **int** hb, **int** sug) { SQLiteDatabase db = **this**.getWritableDatabase(); ContentValues cv = **new** ContentValues();

cv.put(**"PANAME"**, name);

cv.put(**"AGE"**, age);

cv.put(**"HM"**, hb);

cv.put(**"SUGAR"**, sug);

**long** status = db.insert(**"LAB"**,**null**,cv);

**if** (status == -1)

return false; else

return true;

}

**public** Cursor select() {

SQLiteDatabase db = **this**.getWritableDatabase(); Cursor cr = db.rawQuery(**"SELECT \* FROM LAB"**, **null**); **return** cr;

}

}

## PROGRAM NO.: 9

**QUESTION:** Develop an android app to display Map of your college locality

## OUTPUT SCREENSHOTS:



**XML CODE:**

# Google\_maps\_api\_xml Code

<resources>

*<!--*

***TODO: Before you run your application, you need a Google Maps API key.***

*To get one, follow this link, follow the directions and press "Create" at the end:*

*https://console.developers.google.com/flows/enableapi?apiid=maps\_android\_backe nd&keyType=CLIENT\_SIDE\_ANDROID&r=38:EB:EF:79:F0:DD:EB:0B:DE:92:74:C4:2A:84:5A:*

*62:C4:98:73:75%3Bcom.example.collegemap*

*You can also add your credentials to an existing key, using these values: Package name:*

*com.example.collegemap*

*SHA-1 certificate fingerprint: 38:EB:EF:79:F0:DD:EB:0B:DE:92:74:C4:2A:84:5A:62:C4:98:73:75*

*Alternatively, follow the directions here: https://developers.google.com/maps/documentation/android/start#get-key*

*Once you have your key (it starts with "AIza"), replace the "google\_maps\_key"*

*string in this file.*

*-->*

<**string name="google\_maps\_key" templateMergeStrategy="preserve" translatable="false"**>AIzaSyDXl2Oxv6Il3ojORV-NuvgzErgByyx\_ahQ</**string**>

</**resources**>

## JAVA CODE:

**package** com.example.collegemap;

**import** androidx.fragment.app.FragmentActivity;

**import** android.os.Bundle;

**import** com.google.android.gms.maps.CameraUpdateFactory;

**import** com.google.android.gms.maps.GoogleMap;

**import** com.google.android.gms.maps.OnMapReadyCallback; **import** com.google.android.gms.maps.SupportMapFragment; **import** com.google.android.gms.maps.model.LatLng;

**import** com.google.android.gms.maps.model.MarkerOptions;

**public class** MapsActivity **extends** FragmentActivity **implements**

OnMapReadyCallback {

**private** GoogleMap **mMap**; @Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_maps***);

*// Obtain the SupportMapFragment and get notified when the map is ready to be used.*

SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager()

.findFragmentById(R.id.***map***); mapFragment.getMapAsync(**this**);

}

*/\*\**

* *Manipulates the map once available.*
* *This callback is triggered when the map is ready to be used.*
* *This is where we can add markers or lines, add listeners or move the camera. In this case,*
* *we just add a marker near Sydney, Australia.*
* *If Google Play services is not installed on the device, the user will be prompted to install*
* *it inside the SupportMapFragment. This method will only be triggered once the user has*
* *installed Google Play services and returned to the app.*

*\*/*

@Override

**public void** onMapReady(GoogleMap googleMap) {

**mMap** = googleMap;

*// Add a marker in Sydney and move the camera*

LatLng sydney = **new** LatLng(12.93, 77.69);

**mMap**.addMarker(**new** MarkerOptions().position(sydney).title(**"New Horizon College of Engineering"**));

**mMap**.moveCamera(CameraUpdateFactory.*newLatLng*(sydney));

}

}

## MANIFEST FILE:

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

<manifest xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) package="com.example.collegemap">

*use*

*<!--*

*The ACCESS\_COARSE/FINE\_LOCATION permissions are not required to Google Maps Android API v2, but you must specify either coarse*

*or fine*

*-->*

*location permissions for the "MyLocation" functionality.*

<uses-permission android:name="android.permission.ACCESS\_FINE\_LOCATION" />

<uses-permission android:name="android.permission.ACCESS\_COARSE\_LOCATION"/>

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

<application

android:allowBackup="true" android:icon="@mipmap/ic\_launcher" android:label="@string/app\_name" android:roundIcon="@mipmap/ic\_launcher\_round" android:supportsRtl="true" android:theme="@style/AppTheme">

*<!--*

*The API key for Google Maps-based APIs is defined as a*

*string resource.*

*(See the file "res/values/google\_maps\_api.xml").*

*Note that the API key is linked to the encryption key used to sign the APK.*

*You need a different API key for each encryption key, including the release key that is used to*

*sign the APK for publishing.*

*You can define the keys for the debug and release targets in src/debug/ and src/release/.*

*-->*

<meta-data

android:name="com.google.android.geo.API\_KEY" android:value="@string/google\_maps\_key" />

<activity

android:name=".MapsActivity" android:label="@string/title\_activity\_maps">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</**activity**>

</**application**>

</**manifest**>

## PROGRAM NO.: 10

**QUESTION:** Develop an android app to alert SMS to one given phone number.

## OUTPUT SCREENSHOTS:



**XML CODE:**

*<?*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="#BFE6E3" tools:context=".MainActivity">

<TextView

android:layout\_width="163dp" android:layout\_height="25dp" android:text="1NH17CS123" android:textAlignment="center" android:textSize="18sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintHorizontal\_bias="0.319" app:layout\_constraintLeft\_toLeftOf="parent" app:layout\_constraintRight\_toRightOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.897" />

<TextView

android:id="@+id/textView" android:layout\_width="224dp" android:layout\_height="50dp" android:text="SMS SERVICE" android:textAlignment="center"

android:textColor="@android:color/holo\_green\_dark" android:textSize="30sp"

android:textStyle="bold" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.498" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.071" />

<EditText

android:id="@+id/et\_mess" android:layout\_width="277dp" android:layout\_height="114dp" android:ems="10" android:hint="Type message" android:inputType="textPersonName"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.5" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/et\_mob" android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content" android:ems="10" android:hint="Mobile Number" android:inputType="phone"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.333" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.332" />

<Button

android:id="@+id/bt\_send" android:layout\_width="172dp" android:layout\_height="60dp" android:backgroundTint="@color/colorPrimary" android:text="Send SMS" android:textSize="18sp" android:textStyle="bold"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.445" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.683" />

</androidx.constraintlayout.widget.ConstraintLayout>

## JAVA CODE:

**package** com.example.smsservice;

**import** androidx.appcompat.app.AppCompatActivity;

**import** androidx.core.app.ActivityCompat;

**import** androidx.core.content.ContextCompat;

**import** android.Manifest;

**import** android.app.PendingIntent;

**import** android.content.pm.PackageManager;

**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 { EditText **et\_mob**,**et\_mess**;

Button **bt\_send**;

PendingIntent **sentPI**, **deliveredPI**;

@Override

**protected void** onCreate(Bundle savedInstanceState) { **super**.onCreate(savedInstanceState); setContentView(R.layout.***activity\_main***);

**et\_mob** = (EditText)findViewById(R.id.***et\_mob***); **et\_mess** = (EditText)findViewById(R.id.***et\_mess***); **bt\_send** = (Button)findViewById(R.id.***bt\_send***);

**bt\_send**.setOnClickListener(**new** View.OnClickListener() { @Override

**public void** onClick(View view) {

String message = **et\_mess**.getText().toString(); String telNr = **et\_mob**.getText().toString(); **if**(telNr.length()==10)

{

**if** (ContextCompat.*checkSelfPermission*(MainActivity.**this**, Manifest.permission.***SEND\_SMS***) != PackageManager.***PERMISSION\_GRANTED***)

{

ActivityCompat.*requestPermissions*(MainActivity.**this**,

**new** String[]{Manifest.permission.***SEND\_SMS***}, 1);

Toast.*makeText*(getApplicationContext(), **"SMS not sent!"**, Toast.***LENGTH\_SHORT***).show();

}

else

{

SmsManager sms = SmsManager.*getDefault*();

sms.sendTextMessage(telNr, **null**, message, **sentPI**, **deliveredPI**);

Toast.*makeText*(getApplicationContext(), **"SMS sent successfully!"**, Toast.***LENGTH\_SHORT***).show();

}

} **else**

{ Toast.*makeText*(getApplicationContext(), **"SMS not sent**

**!"**, Toast.***LENGTH\_SHORT***).show();

Toast.*makeText*(getApplicationContext(), **"Enter 10 digit number !"**, Toast.***LENGTH\_SHORT***).show();

}

}

});

}

}

## MANIFEST FILE:

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

<manifest xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) package="com.example.smsservice">

## <uses-permission android:name="android.permission.SEND\_SMS"/>

<application

android:allowBackup="true" android:icon="@mipmap/ic\_launcher" android:label="@string/app\_name" android:roundIcon="@mipmap/ic\_launcher\_round" android:supportsRtl="true" android:theme="@style/AppTheme">

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</**activity**>

</**application**>

</**manifest**>