



**GOVERNMENT POLYTECHNIC, NANDED**  
**MICRO PROJECT**

**Academic year: 2020-21**

**TITLE OF THE PROJECT**

**Government polytechnic, Nanded Online registration  
Form**

**Program: Information Tech.**

**Program code: IF6I**

**Course: MAD**

**Course code: 22617**

**Name of Guide:- K. V. Deokar.**



**MAHARASHTRA STATE  
BOARD OF TECHNICAL EDUCATION  
Certificate**

This is to certify that Mr. **Shivhar Bane, Vaibhav Dawane, Harsh Zanwar**

Roll No. 1547,1568, 1570 of **6th** Semester of Diploma in **Information Technology**

of Institute, GOVERNMENT POLYTECHNIC has completed the **Micro Project**

**satisfactorily** in Subject - **MAD (22617)** for the academic year 2020 - 2021

as prescribed in the curriculum.

Place: Nanded

Date:

Exam. Seat No: .....

**Subject Teacher**

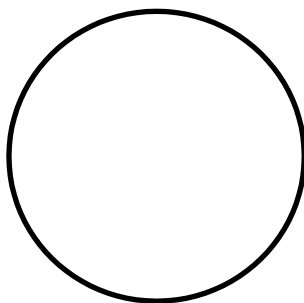
K. V. Deokar

**Head of the Department**

S. N. Dhole Sir

**Principal**

Dr. G.V. Garje



## **WEEKLY PROGRESS REPORT**

**TITLE OF THE MICRO PROJECT:-** Government polytechnic, Nanded Online registration Form

<b>WEEK</b>	<b>A C T I V I T Y   P E R F O R M E D</b>	<b>S I G N O F G U I D E</b>	<b>DATE</b>
<b>1<sup>ST</sup></b>	<b>Discussion and finalization of Topic</b>		
<b>2<sup>ND</sup></b>	<b>Discussion and finalization of Topic</b>		
<b>3<sup>RD</sup></b>	<b>Preparation and submission of Abstract</b>		
<b>4<sup>TH</sup></b>	<b>Literature Review</b>		
<b>5<sup>TH</sup></b>	<b>Collection of Data</b>		
<b>6<sup>TH</sup></b>	<b>Collection of Data</b>		
<b>7<sup>TH</sup></b>	<b>Collection of Data</b>		
<b>8<sup>TH</sup></b>	<b>Collection of Data</b>		
<b>9<sup>TH</sup></b>	<b>Discussion and Outline of Content</b>		
<b>10<sup>TH</sup></b>	<b>Formulation of Content</b>		
<b>11<sup>TH</sup></b>	<b>Editing and 1<sup>st</sup> Proof Reading of Content</b>		
<b>12<sup>TH</sup></b>	<b>Editing and 2<sup>nd</sup> Proof Reading of Content</b>		
<b>13<sup>TH</sup></b>	<b>Compilation of Report and Presentation</b>		
<b>14<sup>TH</sup></b>	<b>Seminar</b>		
<b>15<sup>TH</sup></b>	<b>Viva-voce</b>		
<b>16<sup>TH</sup></b>	<b>Final submission of Micro project</b>		

Sign of the student

Sign of the faculty

K. V. Deokar

## ANEEXURE II

### Evaluation Sheet for the Micro Project

**Academic Year: 2020-21**

**Name of the Faculty: K. V. Deokar**

**Course: MAD**

**Course code: 22617**

**Semester: VI**

**Title of the project:**

government Polytechnic,  
Nanded Online registration  
Form

**Cos addressed by Micro Project:**

**A:** Interpret features of Android operating system.

**B:** Create android application using database.

**Major learning outcomes achieved by students by doing the project**

**(a) Practical outcome:**

- 1) Deliver report effectively.

**(b) Unit outcomes in Cognitive domain:**

- 1) Prepare the points for computer presentation.
- 2) Make seminar presentation.

**(c) Outcomes in Affective domain:**

- 1) Function as team member.
- 2) Follow Ethics.
- 3) Make proper use of computer and Internet

**Comments/suggestions about team work /leadership/inter-personal communication (if any)**

.....  
.....

Roll No.	Student Name	Marks out of 4 for performance in group activity ( D 5 C o l . 8 )	Marks out of 2for performance in oral/ presentation ( D 5 C o 1 . 9 )	Total out of 06
1547	Shivhar Bane			
1568	Vaibhav Dawane			
1570	Harsh Zanwar			

**(Signature of Faculty)**

**K. V. Deokar**

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# **Introduction Android**

Android is used by most of the mobile users and is a trending topic of modern technology. It is an open source area of development and is a Linux based OS which acts as middleware and a key mobile application. This OS is designed to use in modern smartphones, e-book readers, set-top boxes, tablets, and televisions as well. Open Handset Alliance created it. In this tutorial, you will learn the basics of Android, and what are its features and categories of applications developed for Android.

# What is Android?



Android is an open source and Linux-based **Operating System** for mobile devices such as smartphones and tablet computers. Android was developed by the *Open Handset Alliance*, led by Google, and other companies. Android offers a unified approach to application development for mobile devices which means developers need only develop for Android, and their applications should be able to run on different devices powered by Android. The first beta version of the Android Software Development Kit (SDK) was released by Google in 2007 where as the first commercial version, Android 1.0, was released in September 2008.

On June 27, 2012, at the Google I/O conference, Google announced the next Android version, 4.1 **Jelly Bean**. Jelly Bean is an incremental update, with the primary aim of improving the user interface, both in terms of functionality and performance. The source code for Android is available under free and open source software licenses. Google publishes most of the code under the Apache License version 2.0 and the rest, Linux kernel changes, under the GNU General Public License version 2.

# Features of Android

**Android is filled with a lot of features which makes it popular in the world. These are:**

- Android is a customizable operating system, and therefore users can customize it in their way.
- It has an opening screen, quick notification option, stylish yet straightforward UI, etc.
- It is an open source application.
- A diverse range of applications can be chosen to install and use

from the Android Play Store.

- It supports Touch-based keyboards.
- It has a Customized Home screen.
- It provides custom ROMs.
- Widgets for better UX.



# Why Use Android

- Android provides an extensive developer's community support.
- It uses the core Java language for developing applications.
- It also provides high marketing.
- Application development cost is less.
- Good storage and uses a lightweight relational database, SQLite
- It provides good security.

# **Different Genres Of Android Application**

There are a wide variety of Android applications which you can develop after learning android development. These are:

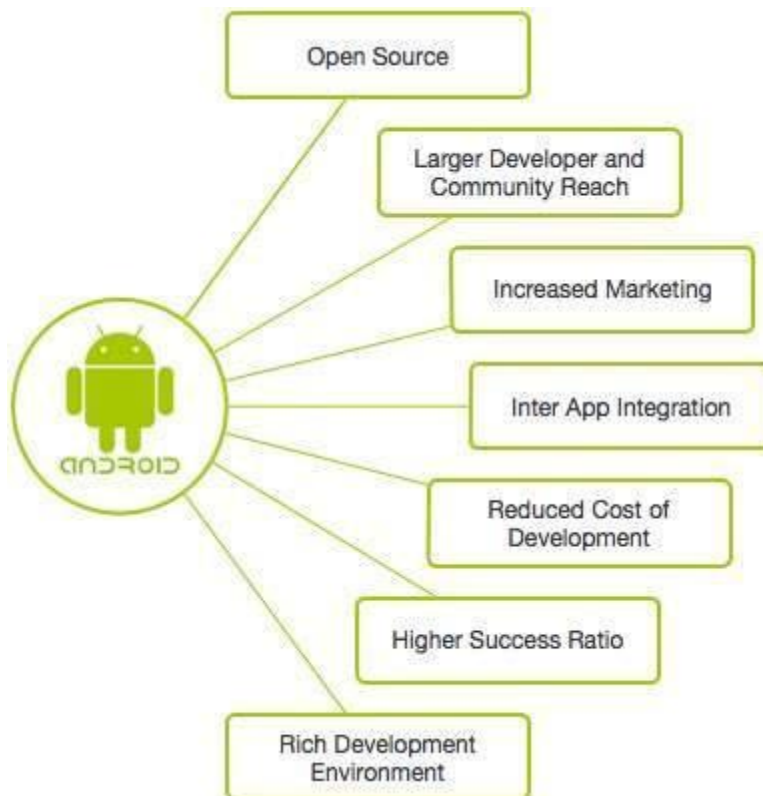
- Utility applications.
- Entertainment applications.
- Music and Audio.
- Social applications.
- Travelling and Location-based applications.
- Video and Media applications.
- Communication applications.
- Personalization applications.
- Game applications.
- Lifestyle applications.
- Business applications.
- Finance applications.
- Sports applications.
- Learning applications etc.

# History of Android

The code names of android ranges from A to N currently, such as Aestro, Blender, Cupcake, Donut, Eclair, Froyo, Gingerbread, Honeycomb, Ice Cream Sandwich, Jelly Bean, KitKat, Lollipop and Marshmallow. Let's understand the android history in a sequence.

 Android 1.6 Donut	 Android 2.0 Eclair	 Android 2.2 Froyo	 Android 2.3 Gingerbread	 Android 3.0 Honeycomb
 Android 4.0 Ice Cream Sandwich	 Android 4.1 Jelly Bean	 Android 4.4 KitKat	 Android 5.0 Lollipop	 Android 6.0 Marshmallow

# Why Android ?



# What is API level?

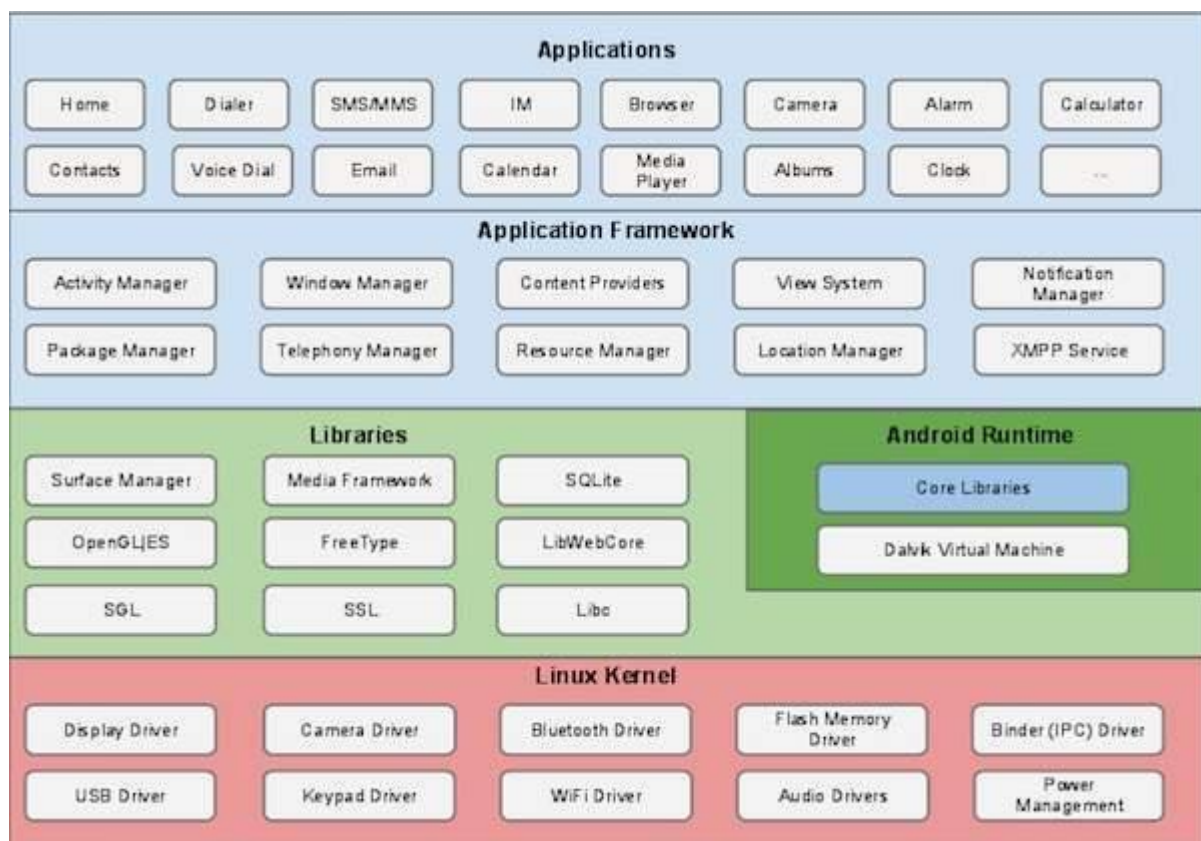
API Level is an integer value that uniquely identifies the framework API revision offered by a version of the Android platform.

Platform Version	API Level	VERSION_CODE	
Android 6.0	23	MARSHMALLOW	
Android 5.1	22	LOLLIPOP_MR1	
Android 5.0	21	LOLLIPOP	
Android 4.4W	20	KITKAT_WATCH	KitKat for Wearables Only
Android 4.4	19	KITKAT	
Android 4.3	18	JELLY_BEAN_MR2	
Android 4.2, 4.2.2	17	JELLY_BEAN_MR1	
Android 4.1, 4.1.1	16	JELLY_BEAN	
Android 4.0.3, 4.0.4	15	ICE_CREAM_SANDWICH_MR1	
Android 4.0, 4.0.1, 4.0.2	14	ICE_CREAM_SANDWICH	
Android 3.2	13	HONEYCOMB_MR2	
Android 3.1.x	12	HONEYCOMB_MR1	

Android 3.0.x	11	HONEYCOMB	
Android 2.3.4 Android 2.3.3	10	GINGERBREAD_MR1	
Android 2.3.2 Android 2.3.1 Android 2.3	9	GINGERBREAD	
Android 2.2.x	8	FROYO	
Android 2.1.x	7	ECLAIR_MR1	
Android 2.0.1	6	ECLAIR_0_1	
Android 2.0	5	ECLAIR	
Android 1.6	4	DONUT	
Android 1.5	3	CUPCAKE	
Android 1.1	2	BASE_1_1	
Android 1.0	1	BASE	

# Android Architecture

Android operating system is a stack of software components which is roughly divided into five sections and four main layers as shown below in the architecture diagram.

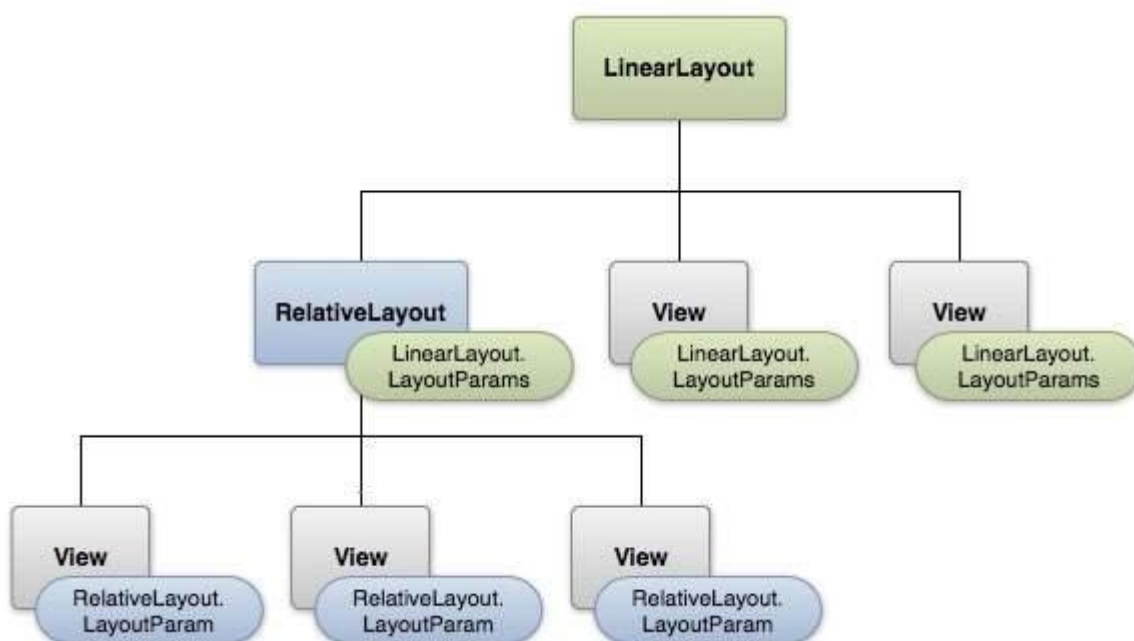


# Android – UL Layouts

The basic building block for user interface is a **View** object which is created from the View class and occupies a rectangular area on the screen and is responsible for drawing and event handling. View is the base class for widgets, which are used to create interactive UI components like buttons, text fields, etc.

The **ViewGroup** is a subclass of **View** and provides invisible container that hold other Views or other ViewGroups and define their layout properties.

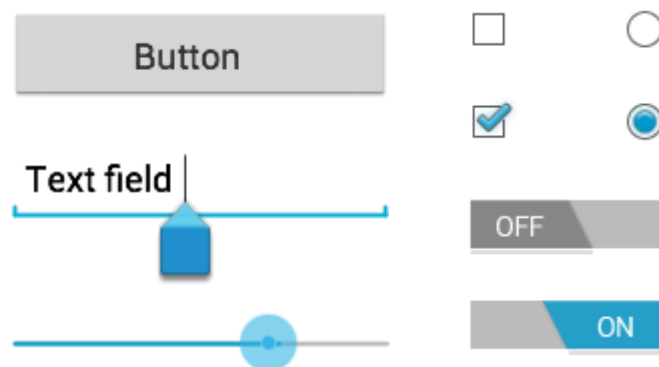
At third level we have different layouts which are subclasses of ViewGroup class and a typical layout defines the visual structure for an Android user interface and can be created either at run time using **View/ViewGroup** objects or you can declare your layout using simple XML file **main\_layout.xml** which is located in the res/layout folder of your project.





# Android – UI Controls

Input controls are the interactive components in your app's user interface. Android provides a wide variety of controls you can use in your UI, such as buttons, text fields, seek bars, check box, zoom buttons, toggle buttons, and many more.

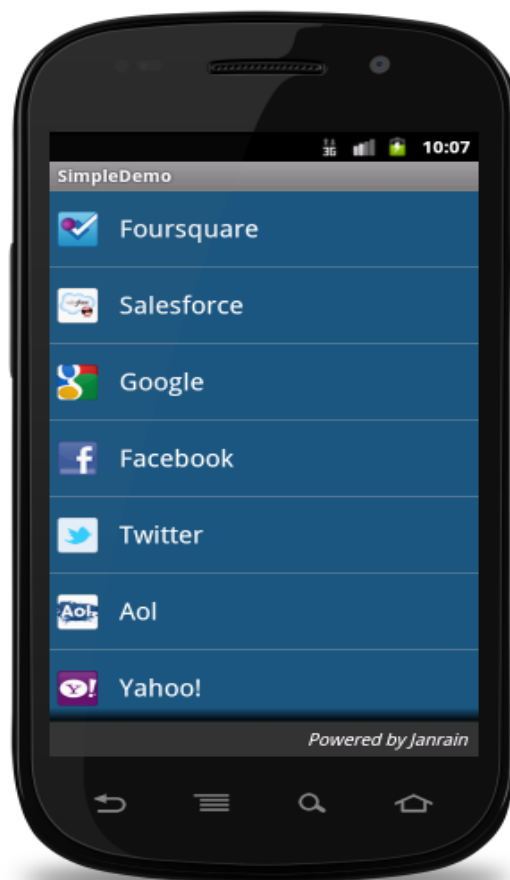


## UI Elements

A **View** is an object that draws something on the screen that the user can interact with and a **ViewGroup** is an object that holds other View (and ViewGroup) objects in order to define the layout of the user interface.

# Applying Colors to Theme Attributes

Your color resource can then be applied to some theme attributes, such as the window background and the primary text color, by adding `<item>` elements to your custom theme. These attributes are defined in your `styles.xml` file. For example, to apply the custom color to the window background, add the following two `<item>` elements to your custom theme, defined in `MyAndroidApp/res/values/styles.xml` file



# Code Used

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

<LinearLayout xmlns:android="http://schemas.android.com/apk/res
/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".Registrationform">

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="Registration"
        android:layout_margin="20dp"
        android:textAlignment="center"
        android:background="#FB7F1F"
        android:textSize="30dp" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Username"
        android:textSize="22dp"
        android:layout_marginLeft="10dp"
        android:layout_marginTop="10dp" />

    <EditText
```

```
        android:id="@+id/t1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:text="" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Email"

    android:layout_marginLeft="10dp"

    android:textSize="22dp"

    android:layout_marginTop="30dp"/>

<EditText
    android:id="@+id/t2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textEmailAddress" />

<TextView
    android:id="@+id/textView4"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="City"
    android:layout_marginLeft="10dp"

    android:textSize="22dp"
    android:layout_marginTop="30dp"/>

<EditText
    android:id="@+id/t3"
    android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="textPersonName"
        android:text="" />
```

```
<TextView
    android:id="@+id/textView5"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Password"
    android:layout_marginLeft="10dp"

    android:layout_marginTop="30dp"
    android:textSize="22dp"/>
```

```
<EditText
    android:id="@+id/p1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:ems="10"
```

```
    android:inputType="textPassword" />
```

```
<CheckBox
    android:id="@+id/checkBox"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Check All Information Correct.."
    android:layout_marginTop="30dp"
    android:textSize="18dp"/>
```

```
<Button
    android:id="@+id/btn2"
    android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"
        android:layout_marginLeft="20dp"
        android:layout_marginTop="30dp"
        android:layout_marginRight="20dp"
        android:textColor="@color/black"
        android:textSize="20dp"
        android:text="Submit" />
```

```
</LinearLayout>
```

```
<?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="#FFFEFD"
    tools:context=".MainActivity">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="160dp"
        android:layout_marginTop="10dp"
        android:orientation="horizontal">

        <ImageView
            android:background="#EA6666"

            android:id="@+id/imageView"
            android:layout_width="wrap_content"
            android:layout_height="128dp"
            android:layout_weight="1"
            app:srcCompat="@drawable/symbol" />
    </LinearLayout>
```

```
<TextView
    android:layout_width="match_parent"
    android:layout_height="220dp"
    android:layout_marginTop="150dp"
    android:background="#59C0EF"
    android:text="Government Polytechnic,Nanded शासकीय
तंत्रनिकेतन, नांदेड"
    android:textAlignment="center"
    android:textColor="@color/white"
    android:textSize="43dp" />
```

```
<TextView
    android:layout_width="match_parent"
    android:layout_height="30dp"
    android:layout_marginTop="370dp"
    android:background="#59C0EF"
    android:text="Established 1964
(Government of Maharashtra)"
    android:textAlignment="center"
    android:textColor="@color/white"
    android:textSize="17dp" />
```

```
<ImageView
    android:id="@+id/imageView2"
    android:layout_width="wrap_content"
    android:layout_height="200dp"
    android:layout_marginLeft="10dp"
    android:layout_marginRight="10dp"
    app:srcCompat="@drawable/it"
    android:layout_marginTop="420dp"/>
```

```
<Button
    android:id="@+id/button"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Click Here For Registration"
    android:layout_marginLeft="10dp"
```

```

        android:onClick="regisForm"
        android:layout_marginRight="10dp"

android:layout_marginTop="630dp"
        tools:ignore="OnClick" />

<ImageView
    android:id="@+id/imageView3"
    android:layout_width="match_parent"
    android:layout_height="170dp"
    app:srcCompat="@drawable/logo"
    android:background="#8BC34A"
    android:layout_marginTop="680dp"/>

</RelativeLayout>

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.onlineregistration">
    <uses-
permission android:name="android.permission.INTERNET"/>
    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/GPND_Nanded"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.OnlineRegistration">
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

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

```



```

        </intent-filter>
    </activity>
    <activity android:name=".Registrationform"/>
</application>
</manifest>

package com.example.onlineregistretion;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate (savedInstanceState);
        setContentView (R.layout.activity_main);
    }

    public void regisForm(View view) {
        Intent regis = new Intent (getApplicationContext (), Registrationform.class);
        startActivity (regis);
    }

}

package com.example.onlineregistretion;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;

```

```
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.Spinner;
import android.widget.Toast;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;

import java.util.HashMap;

public class Registrationform extends AppCompatActivity {

    EditText name,email,city,pass1;

    Button b1;

    private FirebaseDatabase db = FirebaseDatabase.getInstance
();
    private DatabaseReference root = db.getReference ().child (
"Registered Student");

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate (savedInstanceState);
        setContentView (R.layout.registration_form);
        name = findViewById (R.id.t1);
```

```
email = findViewById (R.id.t2);
city = findViewById (R.id.t3);
pass1 = findViewById (R.id.p1);
b1 = findViewById (R.id.btn2);

b1.setOnClickListener (new View.OnClickListener () {
    @Override
    public void onClick(View v) {

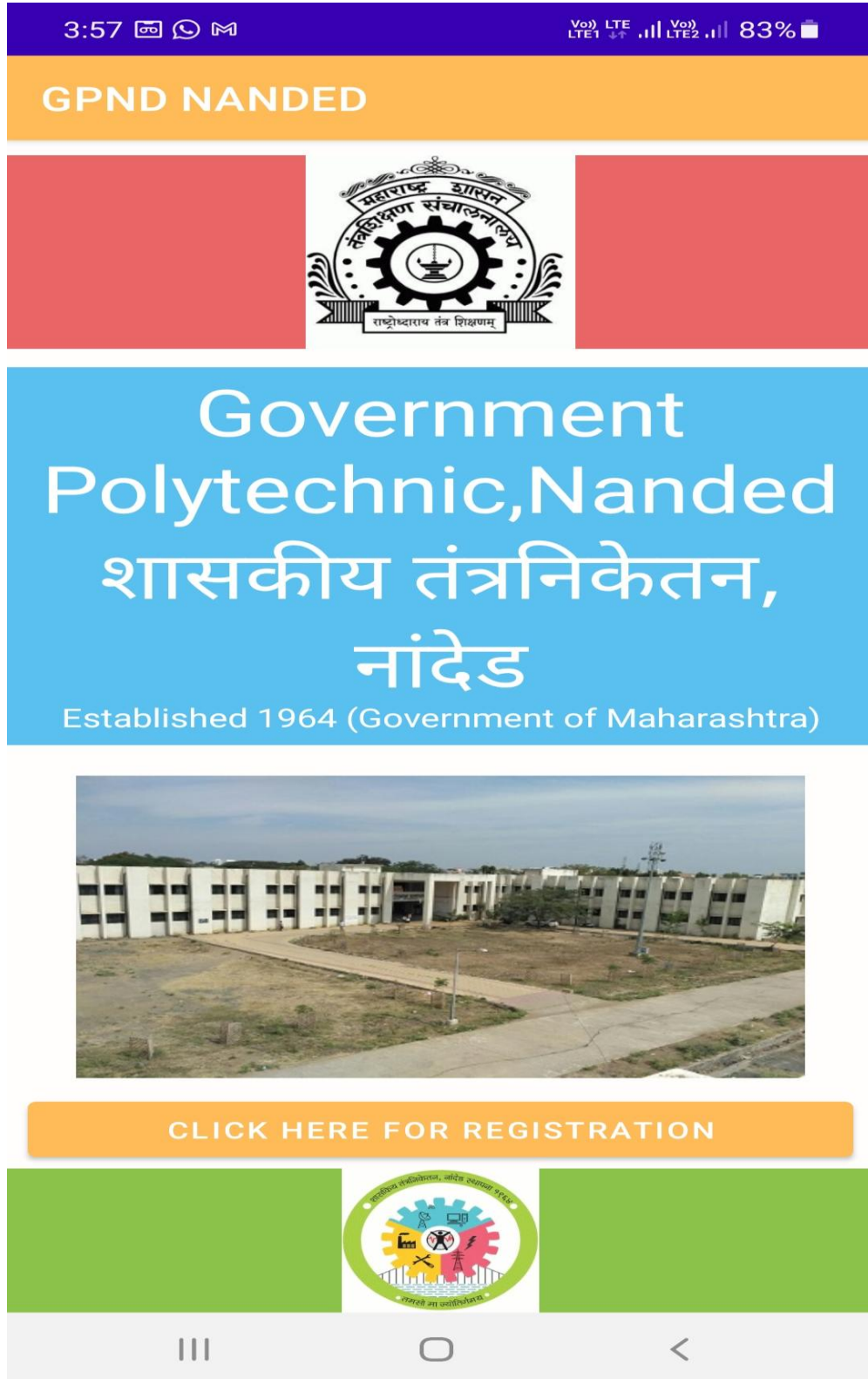
        HashMap<String, Object> map = new HashMap<> ();
        map.put ("Name", name.getText ().toString ());
        map.put ("Email", email.getText ().toString ());
;
        map.put ("City", city.getText ().toString ());
        map.put ("pass1", pass1.getText ().toString ());
;
        root.push ().setValue (map).addOnCompleteListener
er (new OnCompleteListener<Void> () {
            @Override
            public void onComplete(@NonNull Task<Void>
task) {

                }

            });

        Toast.makeText (getApplicationContext (), "Succ
essfully Submitted Your Registration", Toast.LENGTH_SHORT).show
(); });}
```

# Output



4:02

VoLTE1 LTE1 VoLTE2 LTE2 82%

Registered Student – F...  
console.firebase.google.com



# Realtime Database



Data

Rules

Backups

Usage



https://registered-st...



registered-student-default-rtdb



Registered Student



-MbzlR0HYw-zgEC0njjrj

City: "Nanded"  
Email: "zanwarharsh2001@gmail.com"  
Name: "Harsh Santosh Zanwar"  
pass1: "Harsh7709"



Database location: United States (us-central1)



4:00

VoLTE1 LTE1 4G LTE2 4G 82%

GPND NANDED

## Registration

Username

Harsh Santosh Zanwar

Email

zanwarharsh2001@gmail.com

City

Nanded

Password

.....

☒ Check All Information Correct..

SUBMIT

Successfully Submitted Your  
Registration



3:59



VoLTE1 LTE1 VoLTE2 LTE2 82%

GPND NANDED

## Registration

Username

Email

City

Password

☐ Check All Information Correct..

SUBMIT



4:00

Voi) LTE Vo) 82%

GPND NANDED

## Registration

Username

Harsh Santosh Zanwar

Email

zanwarharsh2001@gmail.com

City

Nanded

Password

.....

☒ Check All Information Correct..

SUBMIT





# Conclusion

Android as a full, open and free mobile device platform, with its powerful function and good user experience rapidly developed into the most popular mobile operating system. We have learned a lot from this project on how to develop Android Application and publishing it in real time. This report shows an approach for designing of Registration form for Government Polytechnic, Nanded.

# Sources Used

1. <https://www.google.com/>
2. <https://developer.android.com/training/basics/firstapp>
3. <https://www.javatpoint.com/android-tutorial>
4. <https://developer.android.com/studio>