
SIR BHAVSINHJI POLYTECHNIC INSTITUTE BHAVNAGAR

**DEPATMENT OF INFORMATION TECHNOLOGY
(AFFILIATED WITH GUJARAT TECHNOLOGICAL UNIVERSITY)**

AAD LAB MANUAL

ANDROID APPLICATION DEVELOPMENT

**Subject Code: 3361602
Semester: 6th**

**Guided by
J. B. Pandya**

Name: _____

Enrollment No: _____

Div: _____ Batch: _____

GUJARAT TECHNOLOGICAL UNIVERSITY AHMEDABAD
SIR BHAVSINHJI POLYTECHNIC INSTITUTE
BHAVNAGAR



Certificate

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Diploma in **Information Technology** Engineering in Semester **6**
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APPLICATION DEVELOPMENT during the academic Year **2021-22** and
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Institute Guide

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Name: _____

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Practical_1

Aim: Create “Hello World” application to “Hello World” in the middle of the screen in the red color with white background.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_1">

    <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/Theme.Practical_1">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

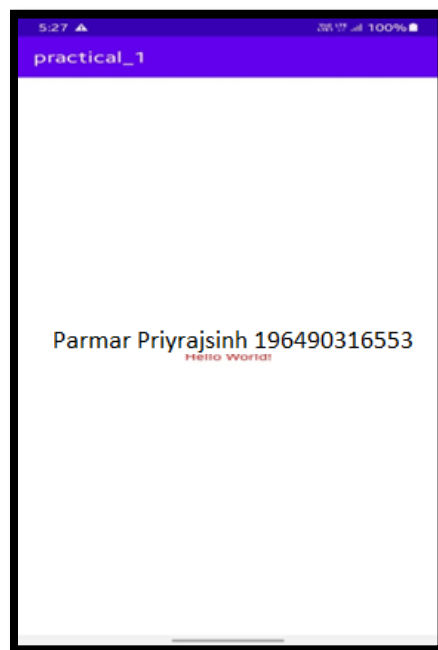
</manifest>
```

- **Activity_main.xml: -**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"    tools:context=".MainActivity">
    <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
        xmlns:app="http://schemas.android.com/apk/res-auto"
        xmlns:tools="http://schemas.android.com/tools"
        android:layout_width="match_parent"    android:layout_height="match_parent"
        android:orientation="horizontal"
        tools:context=".MainActivity">
    <TextView
```

```
android:id="@+id/tv1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_gravity="center"
android:background="@android:color/white"
android:gravity="center"      android:text="Hello World"
android:textColor="#ff0000"   android:textSize="36sp"
/>
</LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

- **Output: -**



Practical-2

Aim: Create sample application with login module. (Check username and password), validate it for login screen or alert the user with a Toast.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_2">

    <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/Theme.Practical_2">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"    tools:context=".MainActivity">

    <EditText
        android:id="@+id/txtname"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```

    android:layout_marginStart="1dp"
    android:layout_marginLeft="1dp"
    android:layout_marginTop="223dp"        android:ems="10"
        android:hint="    Enter User Name"
    android:inputType="textPersonName"        android:textSize="35dp"
        app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"        tools:ignore="MissingConstraints"
/>

```

```

<EditText
    android:id="@+id/txtpwd"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="1dp"
    android:layout_marginLeft="1dp"
    android:layout_marginTop="73dp"        android:ems="10"
        android:hint="    Enter Password"
    android:inputType="textPassword"        android:textSize="35dp"
        app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/txtname"
    tools:ignore="MissingConstraints" />

```

```

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="132dp"
    android:text="Submit"        android:textSize="40dp"
        app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"        tools:ignore="MissingConstraints"
/></androidx.constraintlayout.widget.ConstraintLayout>

```

- **Activity_login.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=".Login">
<TextView

```



```

        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="52dp"
        android:layout_marginLeft="52dp"        android:textSize="40dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.516"        tools:ignore="MissingConstraints"
    /></androidx.constraintlayout.widget.ConstraintLayout>

```

- **MainActivity.java**

```

package com.example.practical_2;

import
    androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle; import
    android.view.View; import android.widget.Button;
import android.content.Intent; import
    android.widget.EditText; import
    android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    String name,pwd;
    Button b;
    EditText e1,e2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name="Prpared by: - Parmar_Priyrajsinh_196490316553";
        pwd="2003";
        b = findViewById(R.id.button);        e1
        = findViewById(R.id.txtname);        e2 =
        findViewById(R.id.txtpwd);
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if((e1.getText().toString()).equals(name) &&
                (e2.getText().toString()).equals(pwd)){
                    Intent i =new Intent(getApplicationContext(),Login.class);
                    i.putExtra("name",name);        startActivity(i);
                }
            }
        });
    }
}

```

```
        }
    else{
        Toast.makeText(getApplicationContext(), "Incorrect UserName or
        Password", Toast.LENGTH_SHORT).show();
    }
}
});
}
}
```

- **Login.java**

```
package com.example.practical_2;
```

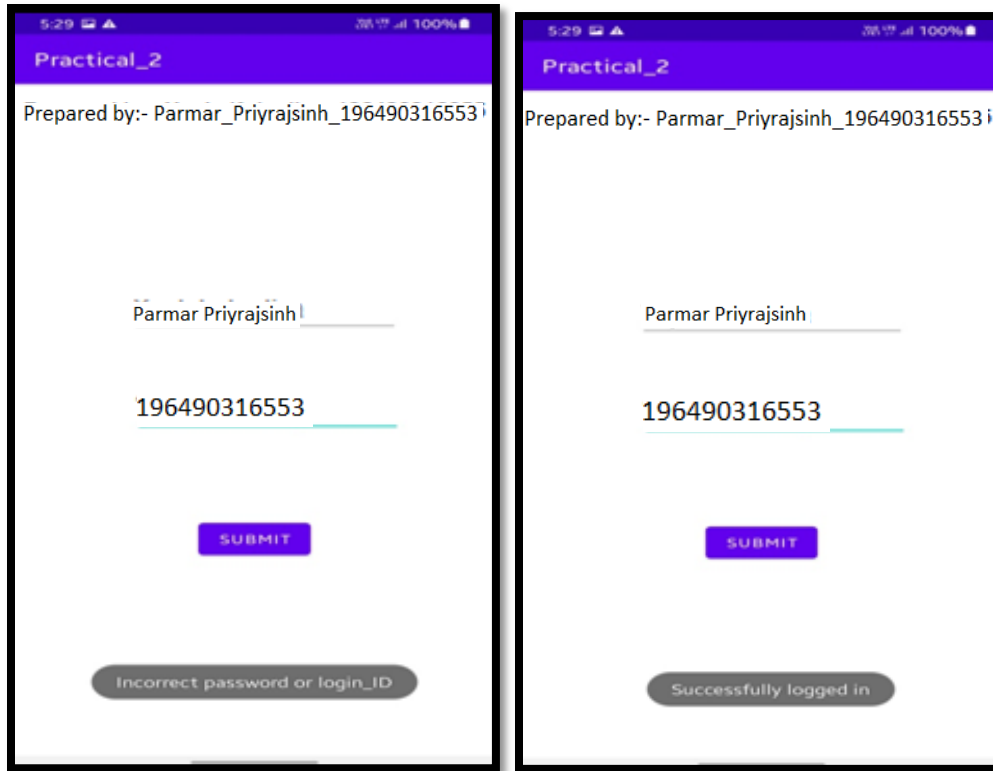
```
import
androidx.appcompat.app.AppCompatActivity;
import android.content.Intent; import
android.os.Bundle; import
android.widget.TextView; import
android.widget.Toast;
```

```
public class Login extends AppCompatActivity {
    TextView tvMsg;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState); setContentView(R.layout.activity_login);
        tvMsg=(TextView)findViewById(R.id.textView);

        Intent i =getIntent(); //i.getStringExtra("Uname");
        tvMsg.setText("Welcome, "+i.getStringExtra("name"));

        Toast.makeText(this, "Welcome, "+i.getStringExtra("name"),
        Toast.LENGTH_SHORT).show();
    }
}
```

- **Output: -**



Practical – 3

Aim: Create and validate a login application using username as Email ID else login button must remain disabled.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_3">

    <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/Theme.Practical_3">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

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

```
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"    tools:context=".MainActivity">

<EditText
    android:id="@+id/txtname"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="1dp"
    android:layout_marginLeft="1dp"
    android:layout_marginTop="220dp"        android:ems="10"
    android:hint="        Enter User Name"
    android:inputType="textPersonName"    android:textSize="35dp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"    tools:ignore="MissingConstraints"
/>

<EditText
    android:id="@+id/txtpwd"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="1dp"
    android:layout_marginLeft="1dp"
    android:layout_marginBottom="52dp"    android:ems="10"
    android:hint="        Enter Password"
    android:inputType="textPassword"    android:textSize="35dp"
    app:layout_constraintBottom_toTopOf="@+id/submit"
    app:layout_constraintStart_toStartOf="parent"    tools:ignore="MissingConstraints"
/>

<Button
    android:id="@+id/submit"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="34dp"
    android:text="Submit"    android:textSize="40dp"
    app:layout_constraintBottom_toTopOf="@+id/Register"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"    tools:ignore="MissingConstraints"
/>

<Button
    android:id="@+id/Register"
    android:layout_width="wrap_content"
```

```

android:layout_height="wrap_content"
android:layout_marginStart="1dp"
android:layout_marginLeft="1dp"
android:layout_marginBottom="62dp"      android:text="Don't
have an account? Register"      android:textSize="20dp"
      app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintStart_toStartOf="parent"      tools:ignore="MissingConstraints"
/></androidx.constraintlayout.widget.ConstraintLayout>

```

- **Activity_login.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=".LoginActivity">
<TextView
      android:id="@+id/textView"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_marginEnd="112dp"
      android:layout_marginRight="112dp"
      android:text="TextView"      android:textSize="40dp"
      app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toTopOf="parent"      tools:ignore="MissingConstraints"
/>

</androidx.constraintlayout.widget.ConstraintLayout>

```

- **Activity_register.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=".RegisterActivity">
<EditText      android:id="@+id/etUser"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_marginStart="1dp"

```

```

    android:layout_marginLeft="1dp"
    android:layout_marginTop="246dp"
    android:ems="10"
        android:hint="    Enter Your E-mail"
    android:inputType="textPersonName"        android:textSize="35dp"
        app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"        tools:ignore="MissingConstraints"
/>
<EditText        android:id="@+id/etPwd"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="1dp"
    android:layout_marginLeft="1dp"
    android:layout_marginTop="55dp"
    android:ems="10"
        android:hint="    Enter Password"
    android:inputType="textPersonName"        android:textSize="35dp"
        app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/etUser"
    tools:ignore="MissingConstraints" />
<Button
    android:id="@+id/submit"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="115dp"
    android:text="Submit"        android:textSize="40dp"
        app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"        tools:ignore="MissingConstraints"
/></androidx.constraintlayout.widget.ConstraintLayout>

```

- **MainAcitvty.java**

```

package com.example.practical_3;

import androidx.annotation.Nullable; import
androidx.appcompat.app.AppCompatActivity;
import android.content.Intent; import
android.os.Bundle; import android.text.Editable;
import android.text.TextWatcher;
import android.view.KeyEvent;
import android.view.View; import
android.widget.Button; import
android.widget.EditText; import
android.widget.Toast;

```

```
public class MainActivity extends AppCompatActivity {
    String uname, pwd;
    Button btnSubmit, btnRegister;
    EditText etUname, etPwd;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);        setContentView(R.layout.activity_main);
        etUname=(EditText)findViewById(R.id.txtname);
        etPwd=(EditText)findViewById(R.id.txtpwd);
        btnSubmit=(Button)findViewById(R.id.submit);
        btnRegister=(Button)findViewById(R.id.Register);        btnSubmit.setEnabled(false);
        btnSubmit.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if((etUname.getText().toString().equals(uname) &&
                (etPwd.getText().toString().equals(pwd)){
                    Intent i =new
                    Intent(getApplicationContext(), LoginActivity.class);
                    i.putExtra("name",uname);                startActivity(i);
                }
            else{
                Toast.makeText(getApplicationContext(), "Incorrect UserName or
                Password", Toast.LENGTH_SHORT).show();
            }
        }    });
        etUname.addTextChangedListener(new TextWatcher() {
            @Override
            public void beforeTextChanged(CharSequence s, int start, int count, int after) {

            }
            @Override
            public void onTextChanged(CharSequence s, int start, int before, int count) {
                if(etUname.getText().toString().equals(uname)){
                    btnSubmit.setEnabled(true);
                }
                if(!etUname.getText().toString().equals(uname)){
                    btnSubmit.setEnabled(false);
                }
            }
            @Override
            public void afterTextChanged(Editable s) {
            }
        });
    }
}
```



```

        btnRegister.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i =new Intent(getApplicationContext(),RegisterActivity.class);
                startActivityForResult(i,1);
            }
        });
    }

    @Override
    protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent
data) {
        super.onActivityResult(requestCode, resultCode, data);

        if(requestCode==1){
            uname=data.getStringExtra("username");
            pwd=data.getStringExtra("password");
        }
    }
}

```

- **Loginactivity.java**

```

package com.example.practical_3;

import
androidx.appcompat.app.AppCompatActivity;
import android.content.Intent; import
android.os.Bundle; import
android.widget.TextView; import
android.widget.Toast;
public class LoginActivity extends AppCompatActivity {
    TextView tvMsg;
    String uname[];
    String name;
    String f;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);
        tvMsg=(TextView)findViewById(R.id.textView);        Intent i
        =getIntent();        name=i.getStringExtra("name");

        uname=name.split("@");
        f=uname[0];
    }
}

```

```
        tvMsg.setText("Welcome, "+f);

        Toast.makeText(this, "Welcome, "+f, Toast.LENGTH_SHORT).show();
    }
}
```

- **Registeractivity.java**

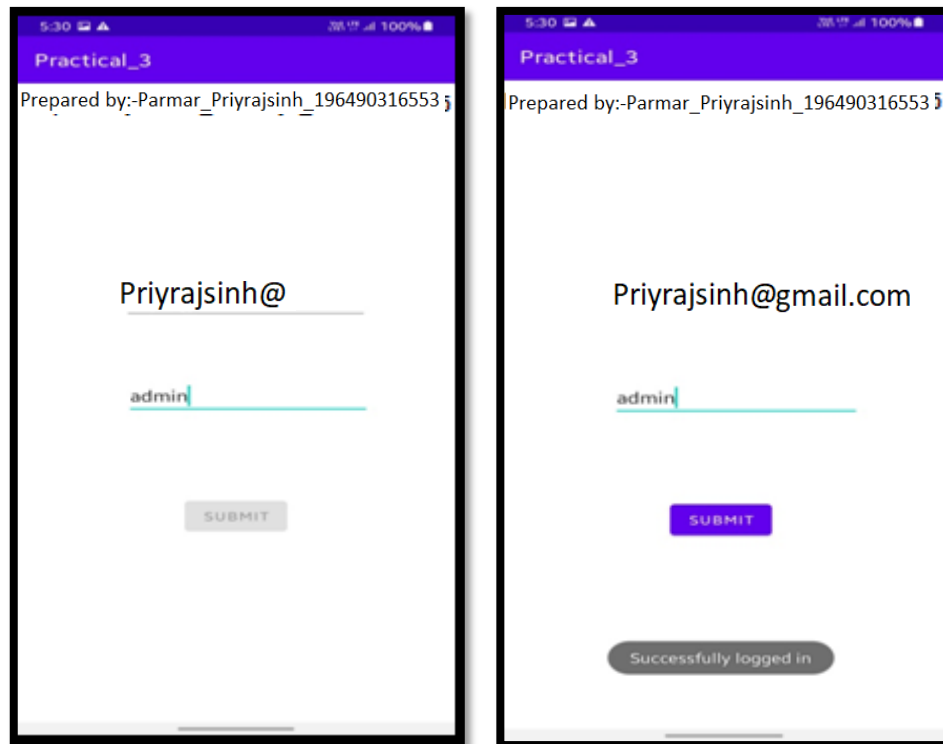
```
package com.example.practical_3;

import
androidx.appcompat.app.AppCompatActivity;
import android.content.Intent; import
android.os.Bundle; import android.view.View;
import android.widget.Button; import
android.widget.EditText;

public class RegisterActivity extends AppCompatActivity {
    Button prev;
    EditText uname,pwd;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);        setContentView(R.layout.activity_register);
        uname=(EditText)findViewById(R.id.etUser);
        pwd=(EditText)findViewById(R.id.etPwd);

        findViewById(R.id.submit).setOnClickListener(new
        View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String name= uname.getText().toString();
                String pass=pwd.getText().toString();
                Intent i =new Intent();
                i.putExtra("username",name);
                i.putExtra("password",pass);
                setResult(1,i);        finish();
            }
        });
    }
}
```

- **Output:-**



Practical – 4

Aim: Create and Login application and open a browser with any one search engine.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_4">

    <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/Theme.Practical_4">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"    tools:context=".MainActivity">

<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="25dp"
    android:layout_marginTop="170dp"
    android:text="@string/tv1_name"    android:textSize="40dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.081" />

<EditText
    android:id="@+id/etUrl"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="64dp"    android:ems="10"
    android:hint="@string/tv1_hint"
    android:inputType="textPersonName"    android:textSize="40dp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView"
    tools:ignore="MissingConstraints" />

<Button
    android:id="@+id/btnSearch"    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="122dp"
    android:text="@android:string/search_go"    android:textSize="45dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    tools:ignore="MissingConstraints" />
<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="23dp"
```

```

        android:layout_marginRight="23dp"
        android:layout_marginBottom="16dp"
        android:text="Prapared by: -
        Yash_Kakadiya_196490316055"
        android:textSize="30dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"        tools:ignore="MissingConstraints"
    />

</androidx.constraintlayout.widget.ConstraintLayout>

```

- **Mainactivity.java**

```

package com.example.practical_4;

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;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {
    EditText etUrl;
    Button btnSearch;
    String link;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);        setContentView(R.layout.activity_main);
        etUrl=(EditText)findViewById(R.id.etUrl);
        btnSearch=(Button)findViewById(R.id.btnSearch);
        btnSearch.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                link=etUrl.getText().toString().toLowerCase();
                if(link.equals("google")){
                    Intent i =new Intent();
                    i.setAction(Intent.ACTION_VIEW);
                    i.setData(Uri.parse("https://www.google.com"));
                    startActivity(Intent.createChooser(i, "Open URL with
                    ..."));
                }

                else if(link.equals("youtube")){
                    Intent i =new Intent();

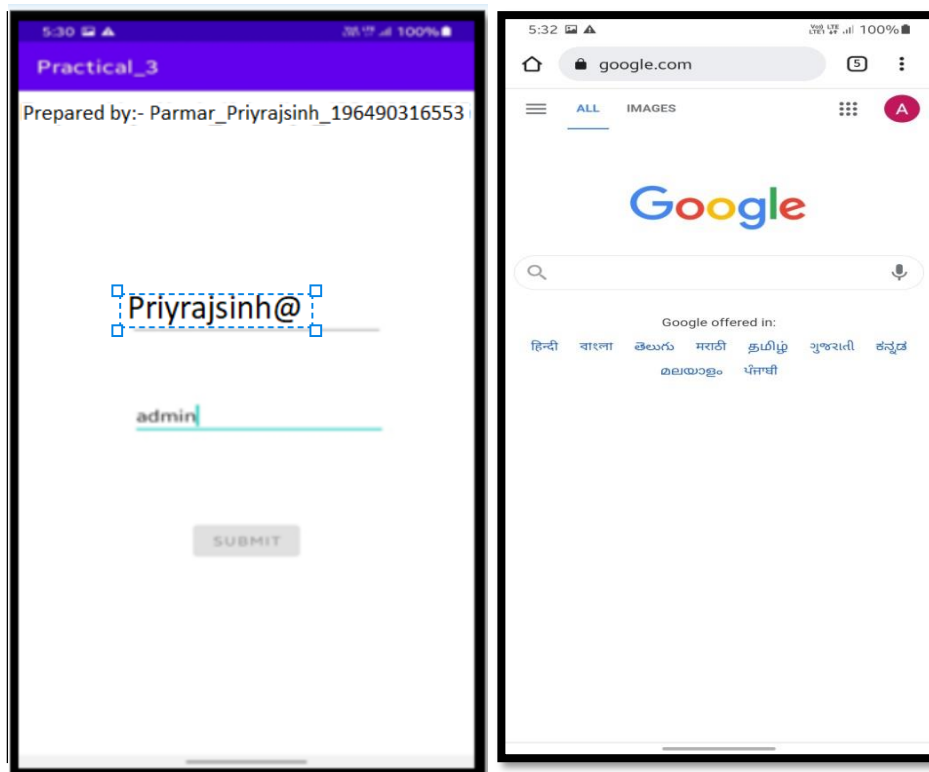
```

```
        i.setAction(Intent.ACTION_VIEW);
        i.setData(Uri.parse("https://www.youtube.com"));
        startActivity(Intent.createChooser(i, "Open URL with
..."));
    }
}
});
}
```

- **String.xml**

```
<resources>
<string name="app_name">practical_4</string>
<string name="tv1_name">Enter URL :</string>
<string name="tv1_hint">Enter URL here...</string></resources>
```

- **Output: -**



Practical – 5

Aim: Create an application to display “Hello World” string the number of times user inputs a numeric value. (Example. If user enters 5, the next screen should print “Hello World” five times.)

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_5">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Practical_5">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"    tools:context=".MainActivity">

    <EditText
```



```
        android:id="@+id/editTextNumber"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="196dp"
        android:layout_marginEnd="12dp"
        android:layout_marginRight="12dp"
        android:ems="10"        android:hint="Enter
        NUmber"
        android:inputType="textPersonName"
        android:textSize="45dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<Button
        android:id="@+id/buttonshow"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="84dp"
        android:layout_marginLeft="84dp"
        android:layout_marginTop="88dp"
        android:text="submit"        android:textSize="50dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextNumber" />

<TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="65dp"
        android:layout_marginRight="65dp"
        android:layout_marginBottom="55dp"
        android:text="Prapared by: -
        Parmar_Priyrajsinh_196490316553
        android:textSize="30dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"        tools:ignore="MissingConstraints"
/>

</androidx.constraintlayout.widget.ConstraintLayout>
```

- **Mainactivity.java**

```
package com.example.pro5;
import android.app.Activity;
import android.content.Intent;
```

```

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

public class MainActivity extends Activity implements OnClickListener {
    EditText editnum;
    Button btshow;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);      setContentView(R.layout.activity_main);

        editnum=(EditText) findViewById(R.id.editTextNumber); btshow=(Button)
        findViewById(R.id.buttonshow);

        btshow.setOnClickListener(this);

    }
    @Override
    public void onClick(View v) {           //
        TODO Auto-generated method stub
        if(v.getId()==btshow.getId())
        {
            Intent myintent=new Intent(this,listActivity.class);
            myintent.putExtra("num",
            Integer.parseInt(editnum.getText().toString()));      startActivity(myintent);
        }
    }
}

```

- **listActivity.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=".listActivity">
    <ListView
        android:id="@+id/listViewItems"
        android:layout_width="409dp"      android:layout_height="729dp"

```

```
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

- **listActivity.java**

```
package com.example.pro5;

import androidx.appcompat.app.AppCompatActivity;
import android.app.Activity; import
android.os.Bundle; import
android.view.View; import
android.widget.AdapterView; import
android.widget.AdapterView; import
android.widget.ArrayAdapter; import
android.widget.ListView; import
android.widget.Toast;

public class listActivity extends Activity implements
AdapterView.OnItemClickListener {
    ListView lv;
    String items[];    int
    i;    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);    setContentView(R.layout.activity_list);
        lv=(ListView) findViewById(R.id.listViewItems); int
        num=getIntent().getIntExtra("num", 0); items=new String[num];
        for(i=0;i<num;i++)
        {
            items[i]="Hello World "+(i+1);
        }
        ArrayAdapter<String> arr=new ArrayAdapter<String>(this,
        android.R.layout.simple_list_item_1,items);    lv.setAdapter(arr);

        lv.setOnItemClickListener(this);
    }
    @Override
    public void onItemClick(AdapterView<?> arg0, View arg1, int pos, long arg3) {
        // TODO Auto-generated method stub
        Toast.makeText(this,items[pos] + " selected",
        Toast.LENGTH_SHORT).show();
    }
}
```

- **Output: -**



Practical – 6

Aim: Create spinner with strings from the resource folder (res >> value folder). On changing spinner value, change image.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_6">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Practical_6">
        <activity
            android:name=".MainActivity"
            android:label="@string/app_name"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_Main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent" tools:context=".MainActivity">

    <TextView
        android:id="@+id/tv1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```
android:layout_centerHorizontal="true"
android:layout_marginEnd="29dp"
android:layout_marginRight="29dp"
android:layout_marginBottom="16dp"
android:text="@string/tv1Text"      android:textSize="30sp"
android:textStyle="bold|italic"
    app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toBottomOf="@+id/spinner1"
tools:ignore="MissingConstraints" />
```

```
<Spinner
    android:id="@+id/spinner1"      android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/tv1"
    android:layout_centerHorizontal="true"
    android:layout_marginEnd="173dp"
    android:layout_marginRight="173dp"
    android:layout_marginBottom="176dp"
    app:layout_constraintBottom_toTopOf="@+id/tv1"
    app:layout_constraintEnd_toEndOf="@+id/imageView1"
    app:layout_constraintTop_toBottomOf="@+id/imageView1"
    tools:ignore="MissingConstraints" />
```

```
<ImageView
    android:id="@+id/imageView1"
    android:layout_width="0dp"      android:layout_height="0dp"
    android:layout_below="@id/spinner1"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="16dp"
    android:layout_marginBottom="59dp"
    android:src="@drawable/doraemon"
    android:visibility="visible"
    app:layout_constraintBottom_toTopOf="@+id/spinner1"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    tools:ignore="MissingConstraints"      tools:visibility="visible" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

- **Mainactivity.java**

```
<?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/tv1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_centerHorizontal="true"
android:layout_marginEnd="29dp"
android:layout_marginRight="29dp"
android:layout_marginBottom="16dp"
android:text="@string/tv1Text"        android:textSize="30sp"
android:textStyle="bold|italic"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toBottomOf="@+id/spinner1"
tools:ignore="MissingConstraints" />
```

```
<Spinner
        android:id="@+id/spinner1"        android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@+id/tv1"
android:layout_centerHorizontal="true"
android:layout_marginEnd="173dp"
android:layout_marginRight="173dp"
android:layout_marginBottom="176dp"
app:layout_constraintBottom_toTopOf="@+id/tv1"
app:layout_constraintEnd_toEndOf="@+id/imageView1"
app:layout_constraintTop_toBottomOf="@+id/imageView1"
tools:ignore="MissingConstraints" />
```

```
<ImageView
        android:id="@+id/imageView1"
android:layout_width="0dp"        android:layout_height="0dp"
android:layout_below="@id/spinner1"
android:layout_centerHorizontal="true"
android:layout_marginTop="16dp"
android:layout_marginBottom="59dp"
android:src="@drawable/doraemon"
android:visibility="visible"
        app:layout_constraintBottom_toTopOf="@+id/spinner1"
        app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
tools:ignore="MissingConstraints"    tools:visibility="visible" />
```

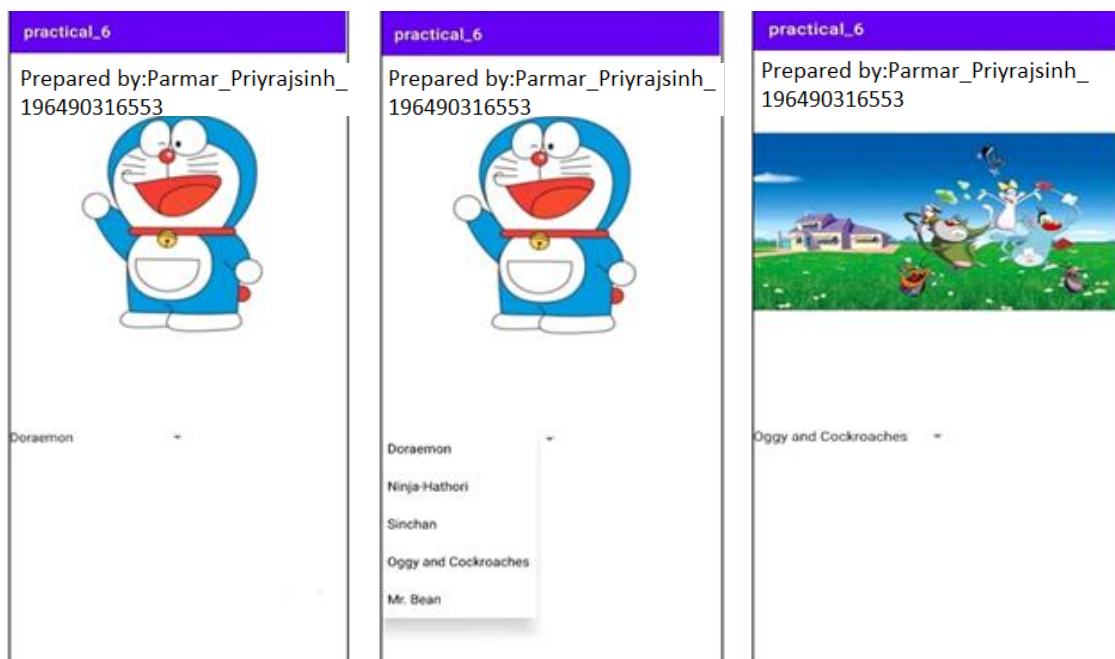
```
</androidx.constraintlayout.widget.ConstraintLayout>
```

- **Strings.xml**

```
<resources>
<string name="app_name">practical_6</string>
<string name="tv1Text">Prepared by: - Parmar_Priyrajsinh_196490316553</string>
```

```
<string-array name="imgname">
<item>Doraemon</item>
<item>Doraemon-Hathori</item>
<item>Sinchan</item>
<item>Oggy and Cockroaches</item>
<item>Mr. Bean</item>
</string-array>
</resources>
```

- **Output:-**



Practical – 7

Aim: Create an application to change screen color as per the user choice from a menu.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.pr_7">

    <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/Theme.Pr_7">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent" tools:context=".MainActivity">
```

- **Main_activity.java**

```
package com.example.pr_7;

import androidx.annotation.NonNull;
```

```
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Color;
import android.os.Bundle; import
android.view.Menu; import
android.view.MenuInflater; import
android.view.MenuItem;

public class MainActivity extends AppCompatActivity {

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

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

    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item) {
        switch (item.getItemId()){            case R.id.colorRed :
            getWindow().getDecorView().setBackgroundColor(Color.RED);        }
        return super.onOptionsItemSelected(item);
    }
}
```

- **Colors_demo.xml**

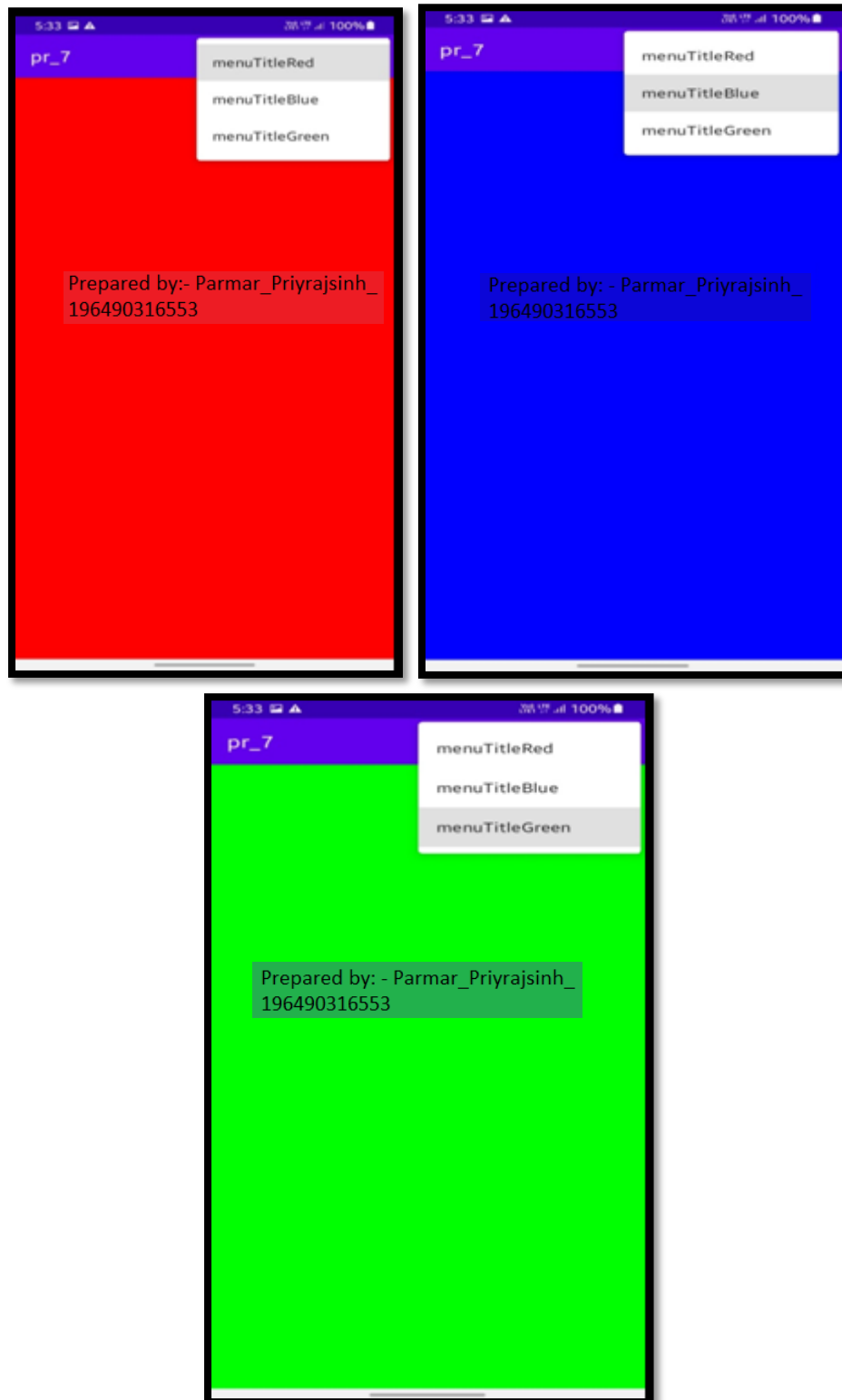
```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto">
    <item android:id="@+id/colorRed"
        android:title="@string/menuTitleRed" />

    <item android:id="@+id/colorBlue"
        android:title="@string/menuTitleBlue" />

    <item android:id="@+id/colorGreen"
        android:title="@string/menuTitleGreen" />

    <item android:id="@+id/colorBlack"
        android:title="@string/menuTitleBlack" /></menu>
```

- **Output:-**



Practical – 8

Aim: Create an application that will display toast (Message) at some regular interval of time

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_8">

    <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/Theme.Practical_8">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"    tools:context=".MainActivity">
```

```
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="27dp"
    android:layout_marginRight="27dp"
    android:layout_marginBottom="26dp"
    android:text="Prapared by: -
    Parmar_Priyrajsinh_196490316553"
    android:textSize="35dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"    tools:ignore="MissingConstraints"
/>

<Button
    android:id="@+id/button"    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Click"    android:textSize="50dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"    tools:ignore="MissingConstraints"
/>

</androidx.constraintlayout.widget.ConstraintLayout>
```

- **Mainactivity.java**

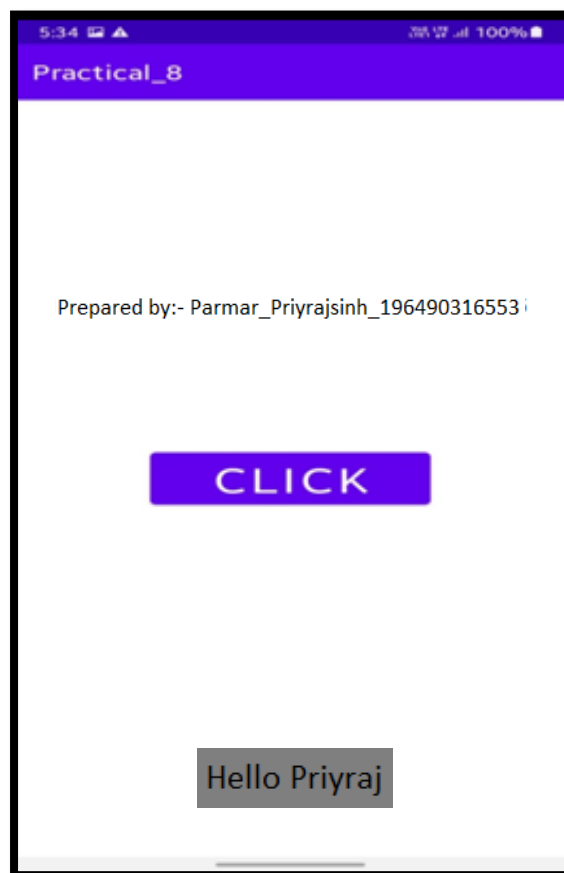
```
package com.example.practical_8;

import
    androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle; import
    android.view.View; import android.widget.Toast;
import
    java.util.Random;

public class MainActivity extends AppCompatActivity {
    Random r;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);    r=new
        Random();
    }
}
```

```
findViewById(R.id.button).setOnClickListener(new
View.OnClickListener() {
@Override
    public void onClick(View v) {
for(int i=0; i<.10;i++){
    Toast.makeText(getApplicationContext(),"Hello Prepared by: -
Parmar_Priyajsinh_196490316055",Toast.LENGTH_LONG).show();
    }
    }
});
}
```

- **Output:-**



Practical – 9

Aim: Create a background application that will open activity on specific time.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_9">

    <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/Theme.Practical_9">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"    tools:context=".MainActivity">

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```

android:layout_marginTop="266dp"
android:text="Service"      android:textSize="40dp"
    app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"      tools:ignore="MissingConstraints"
/>

```

```

<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="33dp"
    android:layout_marginLeft="33dp"
    android:layout_marginTop="68dp"
    android:text="Next"      android:textSize="40dp"
    app:layout_constraintStart_toStartOf="@+id/button1"
app:layout_constraintTop_toBottomOf="@+id/button1"
tools:ignore="MissingConstraints" />

```

```

<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="69dp"
    android:layout_marginRight="69dp"
    android:layout_marginBottom="52dp"
    android:text="Prpared by: -
    Parmar_Priyrajsinh_196490316553"
    android:textSize="30dp"
    app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"      tools:ignore="MissingConstraints"
/></androidx.constraintlayout.widget.ConstraintLayout>

```

- **Activity_second.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=".second">

```

```

<TextView

```



```

        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="321dp"        android:text="Second
        Page"        android:textSize="40dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"        tools:ignore="MissingConstraints"
    /></androidx.constraintlayout.widget.ConstraintLayout>

```

- **Mainactivity.java**

```
package com.example.practical_9;
```

```

import
androidx.appcompat.app.AppCompatActivity;
import android.app.Activity; import
android.content.Intent; import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener; import
android.widget.Button;
public class MainActivity extends AppCompatActivity {
    Button start,stop;    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);    setContentView(R.layout.activity_main);
start=(Button)findViewById(R.id.button1);
stop=(Button)findViewById(R.id.button2);
start.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View vi) {
        Intent i = new Intent(vi.getContext(), service.class);
startActivityForResult(i, 0);
    }    });
stop.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View vi) {
        Intent i = new Intent(vi.getContext(), second.class);
startActivityForResult(i, 0);
    }
    });
}
}

```

- **Secondactivity.java**

```
package com.example.practical_9;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class second extends AppCompatActivity {

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

- **Service.java**

```
package com.example.practical_9;
import android.app.Service; import
android.content.Intent; import
android.os.IBinder; import
android.widget.SlidingDrawer; import
android.widget.Toast;

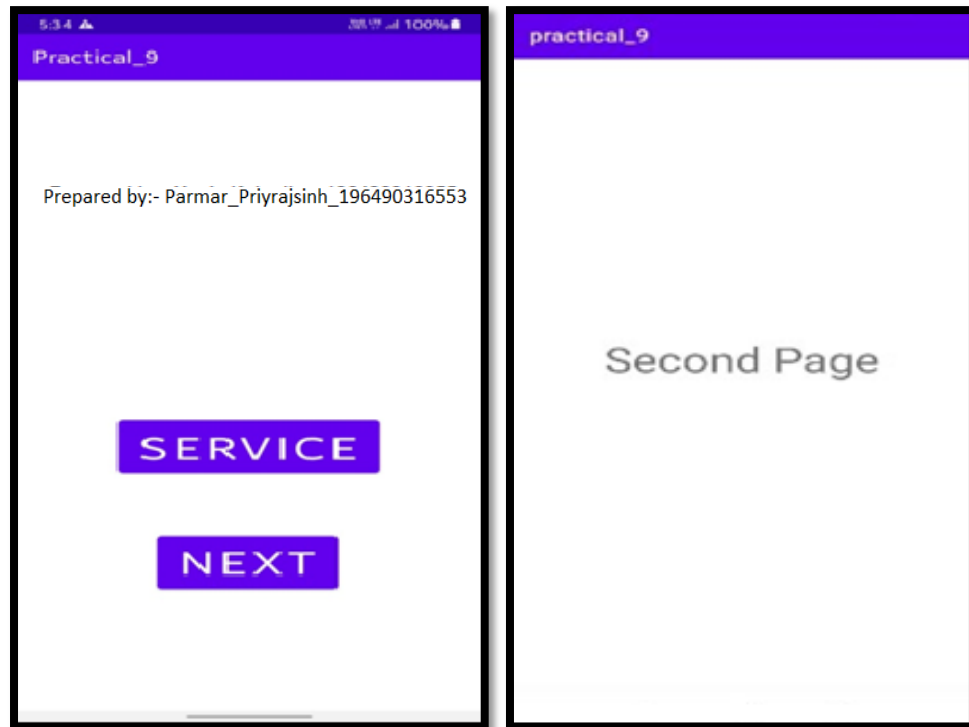
public class service extends Service{

    @Override
    public IBinder onBind(Intent intent) {        return
    null;
    }
    public void onCreate()
    {

        Toast.makeText(this, "My Service Started", Toast.LENGTH_LONG).show();
    }
    public void onDestroy()
    {
        Toast.makeText(this, "My Service Stopped", Toast.LENGTH_LONG).show();    }
    public void onStart(Intent intent, int startid)
    {
        Intent dialogIntent = new Intent(getBaseContext(), second.class);
        dialogIntent.addFlags(Intent.FLAG_ACTIVITY_NEW_TASK);
        getApplication().startActivity(dialogIntent);
    }
}
```

```
}  
}
```

- **Output: -**



Practical – 10

Aim: Create an application that will have spinner with list of animation names. On selecting animation name, that animation should effect on the images displayed below.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_10">

    <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/Theme.Practical_10">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
```

```

android:layout_height="wrap_content"
android:layout_marginEnd="60dp"
android:layout_marginRight="60dp"
android:layout_marginBottom="63dp"
android:text="Prapared by: -
Parmar_Priyrajsinh_196490316553"
android:textSize="30dp"
    app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"    tools:ignore="MissingConstraints"
/>

```

```

<Spinner
    android:id="@+id/spin"    android:layout_width="match_parent"
android:layout_height="wrap_content"
tools:ignore="MissingConstraints"
tools:layout_editor_absoluteX="46dp"
tools:layout_editor_absoluteY="103dp" />

```

```

<ImageView
    android:id="@+id/imageView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:src="@drawable/doraemon"
tools:layout_editor_absoluteX="51dp"
tools:layout_editor_absoluteY="217dp"
tools:ignore="MissingConstraints" />

```

```

</androidx.constraintlayout.widget.ConstraintLayout>

```

- **Mainactivity.java**

```

package com.example.practical_10;
import android.app.Activity;
import android.os.Bundle; import
android.view.*; import
android.view.animation.*; import
android.widget.*;
import android.widget.AdapterView.OnItemClickListener;
public class MainActivity extends Activity implements OnItemSelectedListener{
    Spinner spin;
    ImageView img;
    String array[] ={"Slide in left","Fade in","Fade Out","Slide out right"};    protected
void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);    setContentView(R.layout.activity_main);

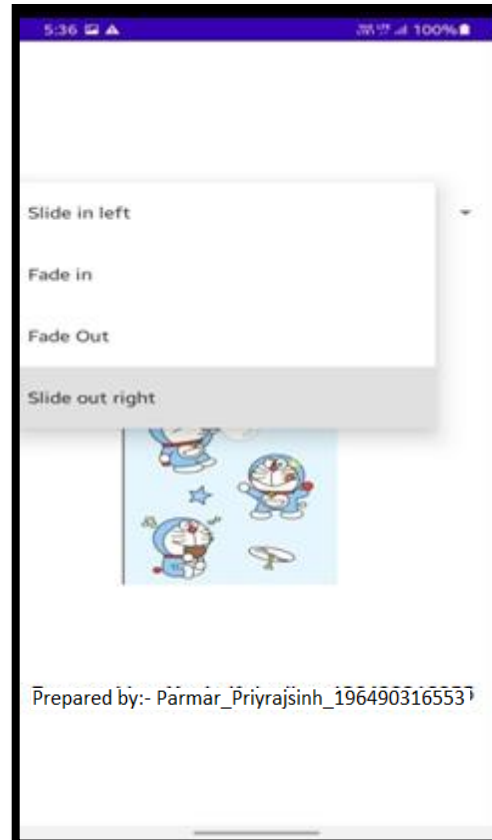
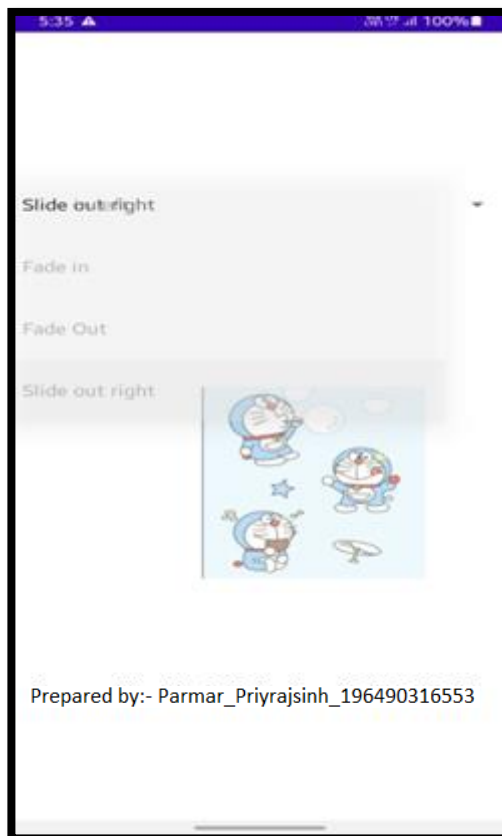
```

```

spin = (Spinner)findViewById(R.id.spin);    img =
(ImageView)findViewById(R.id.imageView);
spin.setOnItemSelectedListener(this);
    ArrayAdapter<String> adapter = new
ArrayAdapter<String>(getApplicationContext(),android.R.layout.simple_dropdown_
item_1line,array);
    spin.setAdapter(adapter);
}
public void onItemSelected(AdapterView<?> arg0, View arg1, int arg2,
                           long arg3) {
    Animation anim=
AnimationUtils.loadAnimation(getApplicationContext(),android.R.anim.slide_in_left);
    if(spin.getSelectedItem().toString().equals("Slide in left"))
    { anim =
AnimationUtils.loadAnimation(getApplicationContext(),android.R.anim.slide_in_left);
    }
    else if(spin.getSelectedItem().toString().equals("Fade in"))
    { anim =
AnimationUtils.loadAnimation(getApplicationContext(),android.R.anim.fade_in);
    }
    else if(spin.getSelectedItem().toString().equals("Fade Out"))
    { anim =
AnimationUtils.loadAnimation(getApplicationContext(),android.R.anim.fade_out);
    }
    else if(spin.getSelectedItem().toString().equals("Slide out right"))
    { anim =
AnimationUtils.loadAnimation(getApplicationContext(),android.R.anim.slide_out_
right);    }
    img.startAnimation(anim);
}
public void onNothingSelected(AdapterView<?> arg0) {
}
}

```

- **Output: -**



Practical - 11

Aim: Create an UI listing the diploma engineering branches. If user selects a branch name, display the number of semesters and subjects in each semester

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_11">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Practical_11">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"    tools:context=".MainActivity">

    <Spinner
        android:id="@+id/spinner1"        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="103dp"
```



```

app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
tools:ignore="MissingConstraints" />

<Spinner
    android:id="@+id/spinner2"    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:layout_marginBottom="246dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    tools:ignore="MissingConstraints" />

<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="30dp"
    android:layout_marginRight="30dp"
    android:layout_marginBottom="37dp"
    android:text="Prpared by: -
    Parmar_Priyrajsinh_196490316553"
    android:textSize="45dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"    tools:ignore="MissingConstraints"
/>

</androidx.constraintlayout.widget.ConstraintLayout>

```

- **Mainactivity.java**

```

package com.example.practical_11;
import android.app.Activity; import
android.os.Bundle; import
android.view.Menu; import
android.view.MenuItem; import
android.view.View; import
android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter; import
android.widget.Spinner; import android.widget.Toast;

public class MainActivity extends Activity implements OnItemClickListener {
    Spinner sp1;
    Spinner sp2;

```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    sp1 = (Spinner) findViewById(R.id.spinner1);
    sp2 = (Spinner) findViewById(R.id.spinner2);
    String s[] = new String[]{"IT", "Computer", "Civil"};

    ArrayAdapter aa = new ArrayAdapter(this, android.R.layout.simple_spinner_item,
s);

    aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
    sp1.setAdapter(aa);
    sp1.setOnItemClickListener(this);
}

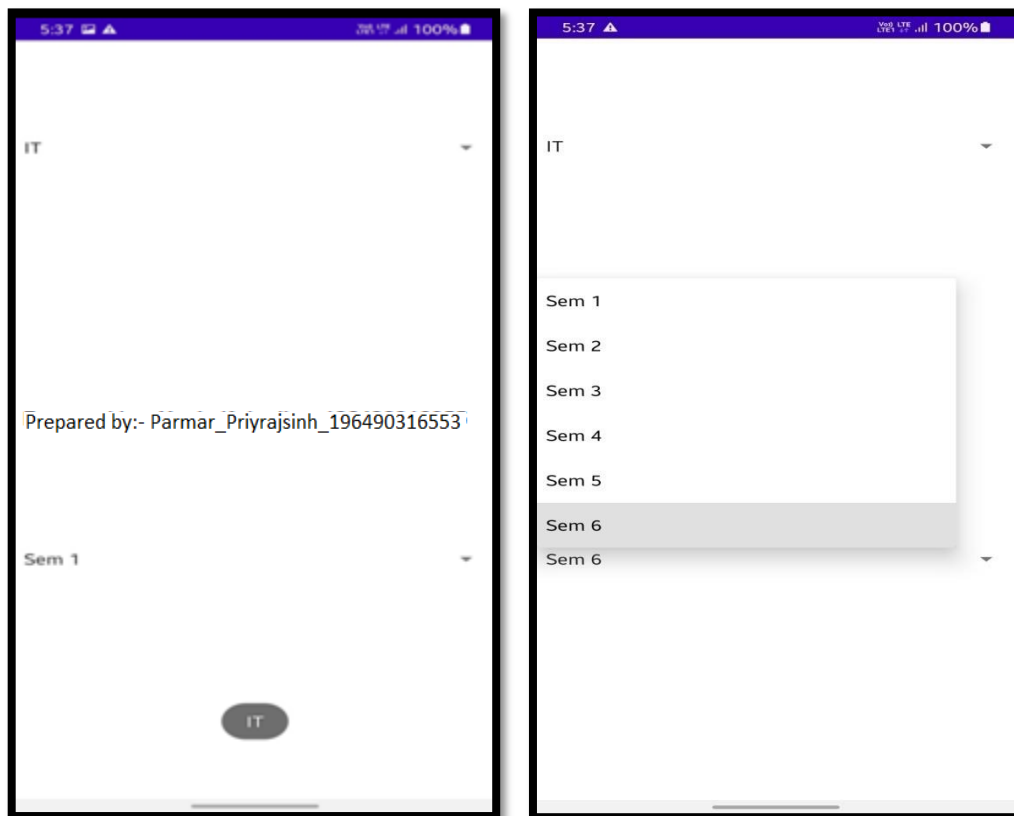
@Override
public void onItemClick(AdapterView<?> arg0, View arg1, int pos, long
arg3) {
    // TODO Auto-generated method stub
    String s = (String) sp1.getItemAtPosition(pos);
    //Toast.makeText(this, s, Toast.LENGTH_LONG).show();
    if (s.equalsIgnoreCase("IT")) {
        Toast.makeText(this, "IT", Toast.LENGTH_LONG).show();
        String city[] = new String[]{"Sem 1", "Sem 2", "Sem 3", "Sem 4", "Sem
5", "Sem 6"};
        ArrayAdapter bb = new ArrayAdapter(this,
android.R.layout.simple_spinner_item, city);

        bb.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        sp2.setAdapter(bb);
    }
    if (s.equals("Computer")) {
        Toast.makeText(this, "Computer", Toast.LENGTH_LONG).show();
        String city[] = new String[]{"Sem 1", "Sem 2", "Sem 3", "Sem 4",
"Sem 5"};
        ArrayAdapter bb = new ArrayAdapter(this,
android.R.layout.simple_spinner_item, city);
        bb.setDropDownViewResource(android.R.layout.simple
_spinner_dropdown_item);        sp2.setAdapter(bb);
    }
    if (s.equals("Civil")) {
        Toast.makeText(this, "Civil", Toast.LENGTH_LONG).show();
        String city[] = new String[]{"Sem 1", "Sem 2", "Sem 3", "Sem 4",
```

```
"Sem 5", "Sem 6 "};  
    ArrayAdapter bb = new ArrayAdapter(this,  
    android.R.layout.simple_spinner_item, city);  
  
    bb.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);  
    sp2.setAdapter(bb);  
    }  
}
```

```
@Override  
public void onNothingSelected(AdapterView<?> parent) {  
  
    }  
}
```

- **Output: -**



Practical – 12

Aim: Use content providers and permissions by implementing read phonebook contacts with content providers and display in the list.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_12">

    <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/Theme.Practical_12">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent" tools:context=".MainActivity">

    <ListView
        android:layout_width="409dp"
        android:layout_height="729dp" android:id="@+id/listview1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

- **Mainactivity.java**

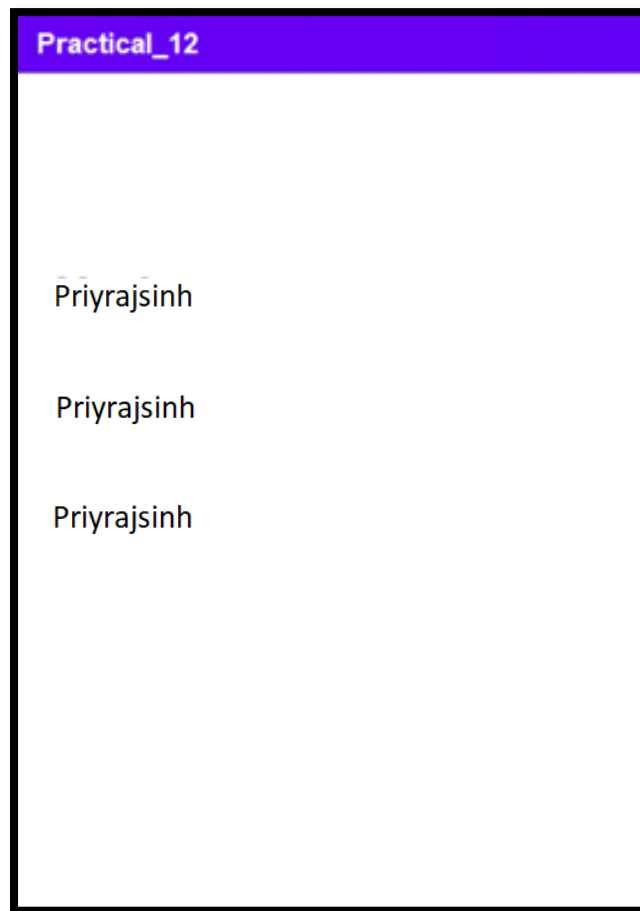
```
package com.example.practical_12;
import android.app.Activity; import
android.database.Cursor; import
android.net.Uri; import android.os.Bundle;
import android.provider.Contacts; import
android.widget.AdapterView; import
android.widget.ListView; public class
MainActivity extends Activity {
    int i=0;    ListView
    mylist;    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);    setContentView(R.layout.activity_main);

        mylist=(ListView) findViewById(R.id.listview1);

        Uri u=Uri.parse("content://contacts/people");
        //Uri u1= Contacts.Phones.CONTENT_URI;
        Cursor cur=managedQuery(u, null,null,null,null);
        String names[]=new String[cur.getCount()];

        while(cur.moveToNext())
        {
            names[i++]=cur.getString(15)+"ntttt"+cur.getString(7);    }
        ArrayAdapter<String> aa=new ArrayAdapter<String>(this,
        android.R.layout.simple_list_item_1,names);    mylist.setAdapter(aa);
    }
}
```

- **Output: -**



Practical – 13

Aim: Create an application to call a phone number entered by the user the Edit Text.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_13">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Practical_13">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"    tools:context=".MainActivity">

    <EditText
        android:id="@+id/edittext"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```

android:layout_marginTop="196dp"
android:layout_marginEnd="26dp"
android:layout_marginRight="26dp"      android:hint="Enter
Number:-"      android:inputType="textPersonName"
android:textSize="45dp"
      app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toTopOf="parent"      tools:ignore="MissingConstraints"
/>

```

```

<Button
      android:id="@+id/button"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_marginTop="76dp"      android:text="click to
call"      app:layout_constraintEnd_toEndOf="parent"
      app:layout_constraintStart_toStartOf="parent"
      app:layout_constraintTop_toBottomOf="@+id/edittext"
      tools:ignore="MissingConstraints" />

```

```

<TextView
      android:id="@+id/textview"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_marginStart="16dp"
      android:layout_marginLeft="16dp"
      android:layout_marginBottom="150dp"      android:ems="10"
      android:inputType="textPersonName"      android:text="Call
Application"      android:textSize="45dp"
      app:layout_constraintBottom_toBottomOf="parent"
      app:layout_constraintStart_toStartOf="parent"      tools:ignore="MissingConstraints"
/></androidx.constraintlayout.widget.ConstraintLayout>

```

- **Mainactivity.java**

```

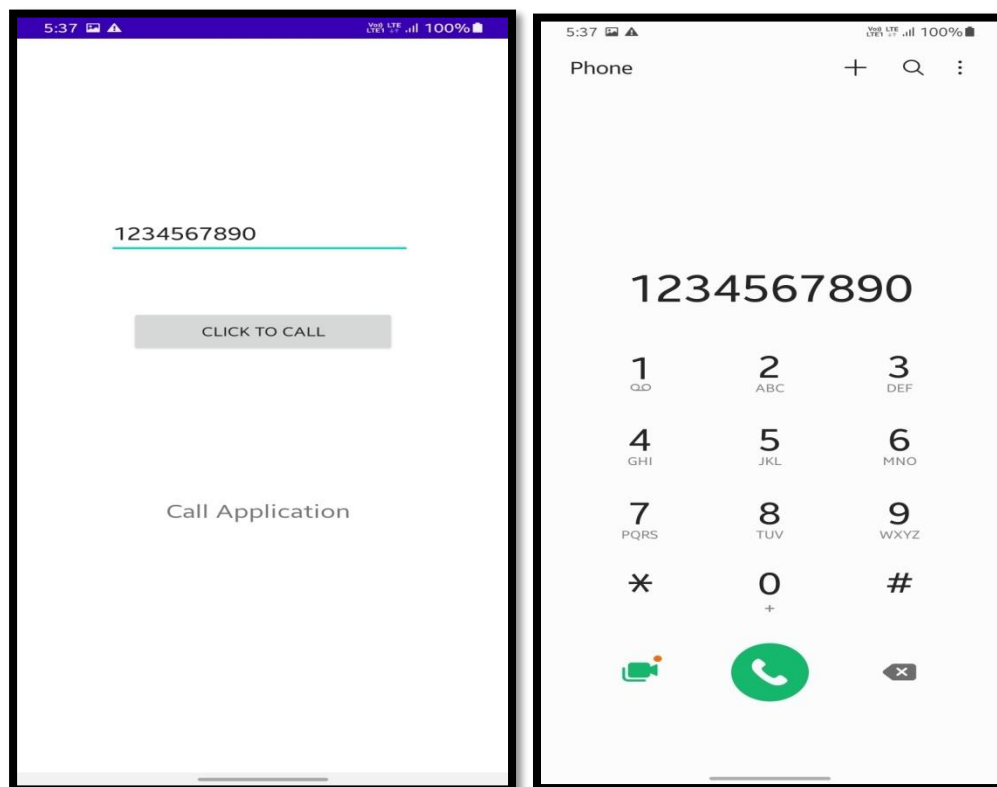
package com.example.practical1_13;
import android.app.Activity;
import android.content.Intent;
import android.net.Uri; import
android.os.Bundle; import
android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button; import
android.widget.EditText;
public class MainActivity extends Activity implements OnClickListener {
    EditText num;
    Button dial;
    @Override

```



```
public void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);    num=(EditText)  
    findViewById(R.id.edittext);    dial=(Button)  
    findViewById(R.id.button);  
  
    dial.setOnClickListener(this);  
}  
@Override  
    public void onClick(View v) { //  
        TODO Auto-generated method stub  
        if(v.getId()==dial.getId())  
        {  
  
            Intent myintent=new Intent(Intent.ACTION_DIAL,  
            Uri.parse("tel:"+num.getText()));  
            startActivity(myintent);  
        }  
    }  
}
```

- **Output: -**



Practical – 14

Aim: Create an application that will create database to store username and password.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_14">

    <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/Theme.Practical_14">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **Activity_Main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent" tools:context=".MainActivity">

    <EditText
```

```

        android:id="@+id/number"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="215dp"
        android:ems="10"        android:hint="Enter
        User Name"
        android:inputType="textPersonName"
        android:textSize="40dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"        tools:ignore="MissingConstraints"
    />

```

```

<EditText
    android:id="@+id/name"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="49dp"
    android:ems="10"        android:hint="Enter
    Password"
    android:inputType="numberPassword"
    android:textSize="40dp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/number"
    tools:ignore="MissingConstraints" />

```

```

<Button
    android:id="@+id/submit"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="161dp"
    android:text="Submit"        android:textSize="50dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"        tools:ignore="MissingConstraints"
/></androidx.constraintlayout.widget.ConstraintLayout>

```

- **Mainactivity.java**

```

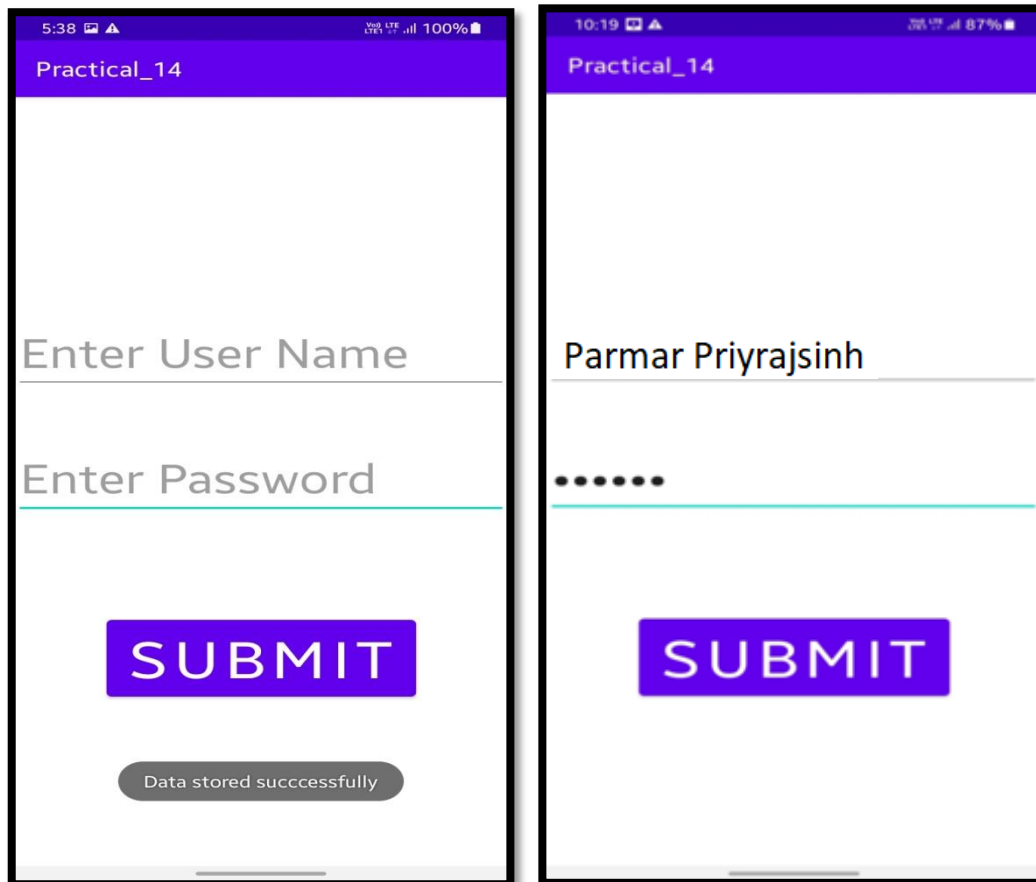
Package com.example.practical_14
import androidx.appcompat.app.AppCompatActivity; import
android.content.Context;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText; i
import android.widget.Toast;

```

```
public class MainActivity extends AppCompatActivity {
    EditText e1,e2;
    Button b;
    SQLiteDatabase sqliteobj;
    String str1,str2,sqlitequery;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e1 =
        findViewById(R.id.number);
        e2 =
        findViewById(R.id.name);
        b =
        findViewById(R.id.submit);
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                SQLiteDatabaseBuild();
                SQLiteTableBuild();
                Checktext();
                InsertDataIntoSQLiteDatabase();
                EmptyEditText();
            }
        });
    }
    public void SQLiteDatabaseBuild()
    {
        sqliteobj = openOrCreateDatabase("db1", Context.MODE_PRIVATE,null);
    }
    public void SQLiteTableBuild()
    {
        sqliteobj.execSQL("Create Table If not Exists login(UserName TEXT
Primary key not null>Password INTEGER not null)");
    }
    public void Checktext()
    {
        str1 = e1.getText().toString();
        str2 =
        e2.getText().toString();
    }
    public void InsertDataIntoSQLiteDatabase()
    {
        sqlitequery="Insert Into
login(UserName>Password)Values('"+str1+"','"+str2+"');";
        sqliteobj.execSQL(sqlitequery);
        sqliteobj.close();
        Toast.makeText(this, "Data stored successfully",
        Toast.LENGTH_SHORT).show();
    }
}
```

```
public void EmptyEditText()
{
    e1.getText().clear();    e2.getText().clear();
}
}
```

- **Output: -**



Practical – 15

Aim: Create an application to insert, update and delete a record from the database.

Ans:

- **Android Manifest File: -**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.practical_15">

    <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/Theme.Practical_15">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

- **Activity_Main.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent" tools:context=".MainActivity">

    <EditText
        android:id="@+id/editText_name"
        android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
android:layout_marginStart="30dp"
android:layout_marginLeft="30dp"
android:layout_marginTop="140dp"
android:ems="10"      android:hint="Enter
Name"
android:inputType="textPersonName"
android:textSize="30dp"
    app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"      tools:ignore="MissingConstraints"
/>
```

```
<EditText
    android:id="@+id/editText_surname"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="30dp"
    android:layout_marginLeft="30dp"
    android:layout_marginTop="19dp"
    android:ems="10"      android:hint="Enter
Surname"
    android:inputType="textPersonName"
    android:textSize="30dp"
    app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/editText_name"
tools:ignore="MissingConstraints" />
```

```
<EditText
    android:id="@+id/editText_marks"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="30dp"
    android:layout_marginLeft="30dp"
    android:layout_marginTop="21dp"
    android:ems="10"      android:hint="Enter
Marks"
    android:inputType="textPersonName"
    android:textSize="30dp"
    app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/
editText_surname"
tools:ignore="MissingConstraints" />
```

```
<EditText
    android:id="@+id/editText_id"
    android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
android:layout_marginStart="30dp"
android:layout_marginLeft="30dp"
android:layout_marginTop="19dp"
android:ems="10"      android:hint="Enter ID"
android:inputType="textPersonName"
android:textSize="30dp"
    app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/editText_marks"
    tools:ignore="MissingConstraints" />
<Button
    android:id="@+id/button_add"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginEnd="14dp"
    android:layout_marginRight="14dp"
    android:layout_marginBottom="27dp"
    android:text="Add"      android:textSize="35dp"
    app:layout_constraintBottom_toTopOf="@+id/button_update"
    app:layout_constraintEnd_toEndOf="@+id/button_update"
    tools:ignore="MissingConstraints" />
<Button
    android:id="@+id/button_viewall"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="27dp"
    android:text="View"      android:textSize="35dp"
    app:layout_constraintBottom_toTopOf="@+id/button_delete"
    app:layout_constraintStart_toStartOf="@+id/button_delete"
    tools:ignore="MissingConstraints" />
<Button
    android:id="@+id/button_update"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="16dp"
    android:layout_marginLeft="16dp"
    android:layout_marginBottom="75dp"
    android:text="Update"      android:textSize="35dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="parent"      tools:ignore="MissingConstraints"
/>
<Button
    android:id="@+id/button_delete"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="44dp"
```



```

android:layout_marginLeft="44dp"
android:text="Delete"      android:textSize="35dp"
    app:layout_constraintBottom_toBottomOf="@+id/button_update"
app:layout_constraintStart_toEndOf="@+id/button_update"
app:layout_constraintTop_toTopOf="@+id/button_update"
tools:ignore="MissingConstraints" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

- **Mainactivity.java**

```

package com.example.db3;
import android.database.Cursor;
import android.os.Bundle;
import androidx.appcompat.app.AlertDialog; import
androidx.appcompat.app.AppCompatActivity;
import android.view.View;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    DatabaseHelper db;
    EditText editname, editsurname, editid, editmarks;
    Button btnadd, btnview, btnupdate, btndelete;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);      db = new
        DatabaseHelper(this);      editname =
        findViewById(R.id.editText_name);      editid =
        findViewById(R.id.editText_id);      editmarks =
        findViewById(R.id.editText_marks);      editsurname =
        findViewById(R.id.editText_surname);      btnadd =
        findViewById(R.id.button_add);      btndelete =
        findViewById(R.id.button_delete);      btnupdate =
        findViewById(R.id.button_update);      btnview =
        findViewById(R.id.button_viewall);
        Adddata();
        Viewalldata();
        Updatedata();
        Deletedata();
    }
}

```

```
public void Deletedata() {
    btndelete.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Integer deleterows =
            db.Deletedata(editid.getText().toString());
            if (deleterows > 0) {
                Toast.makeText(MainActivity.this, "Data Deleted",
                Toast.LENGTH_SHORT).show();
            } else {
                Toast.makeText(MainActivity.this, "Data Not Deleted",
                Toast.LENGTH_SHORT).show();
            }
        }
    });
}

public void Updatedata() {
    btnupdate.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            boolean isupdate = db.Updatedata(editid.getText().toString(),
            editname.getText().toString(), editsurname.getText().toString(),
            editmarks.getText().toString());
            if (isupdate == true) {
                Toast.makeText(MainActivity.this, "Data Updated",
                Toast.LENGTH_SHORT).show();
            } else {
                Toast.makeText(MainActivity.this, "Data Not Updated",
                Toast.LENGTH_SHORT).show();
            }
        }
    });
}

public void Adddata() {
    btnadd.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            boolean isinserted =
            db.Insertdata(editname.getText().toString(), editsurname.getText().toString(),
            editmarks.getText().toString());
            if (isinserted == true) {
                Toast.makeText(MainActivity.this, "Data Inserted",
                Toast.LENGTH_SHORT).show();
            } else {
                Toast.makeText(MainActivity.this, "Data Not Inserted",
                Toast.LENGTH_SHORT).show();
            }
        }
    });
}
```

```

    });
}
public void Viewalldata() {
    btnview.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Cursor res = db.getAllData();
            if (res.getCount() == 0) {
                showMessage("error", "nothing to display");
                return;
            } else {
                while (res.moveToNext()) {
                    StringBuffer buffer = new StringBuffer();
                    buffer.append("ID:" + res.getString(0) + "\n");
                    buffer.append("NAME:" +
                        res.getString(0) + "\n");
                    buffer.append("SURNAME:" +
                        res.getString(0) + "\n");
                    buffer.append("MARKS" + res.getString(0) +
                        "\n");
                    showMessage("data", buffer.toString());
                }
            }
        }
    });
}

public void showMessage(String title, String Message) {
    AlertDialog.Builder builder = new AlertDialog.Builder(this);
    builder.setCancelable(true);
    builder.setTitle(title);
    builder.setMessage(Message);
    builder.show();
}
}

```

- **DatabaseHelper.java**

```

package com.example.db3;
import android.content.ContentValues;
import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

public class DatabaseHelper extends SQLiteOpenHelper {
    public static String database_name = "employee.db";
    public static final String table_name = "employee_table";
    public static final String col_1 = "ID";
    public static final String col_2 = "NAME";
    public static final String col_3 = "SURNAME";
    public static final String col_4 = "MARKS";
    public static final int Version_name = 1;

    public DatabaseHelper(Context c) {
        super(c,database_name,null,Version_name);
    }
}

```

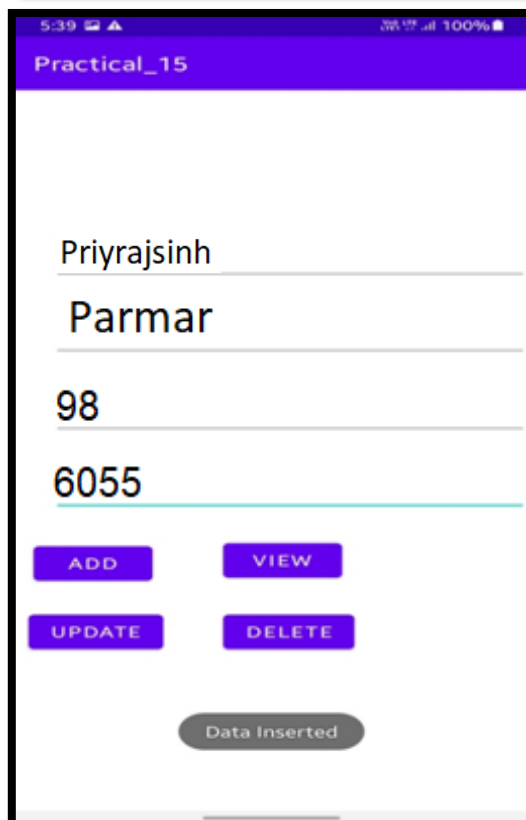
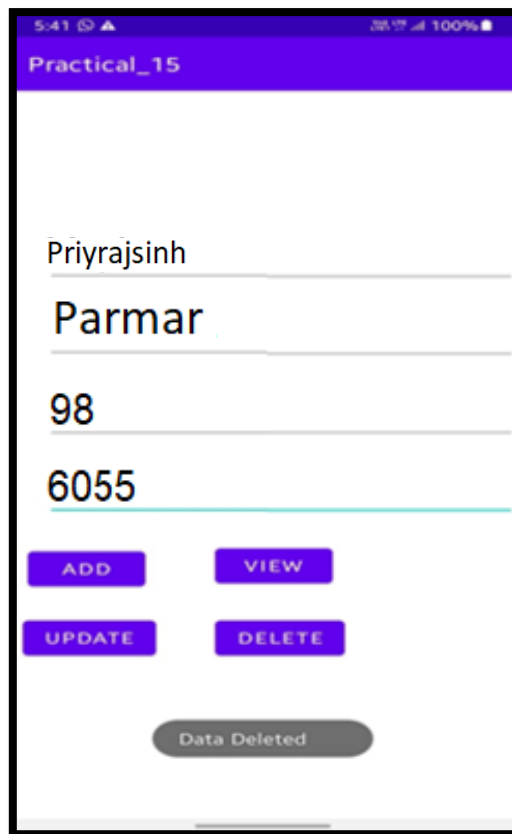
```

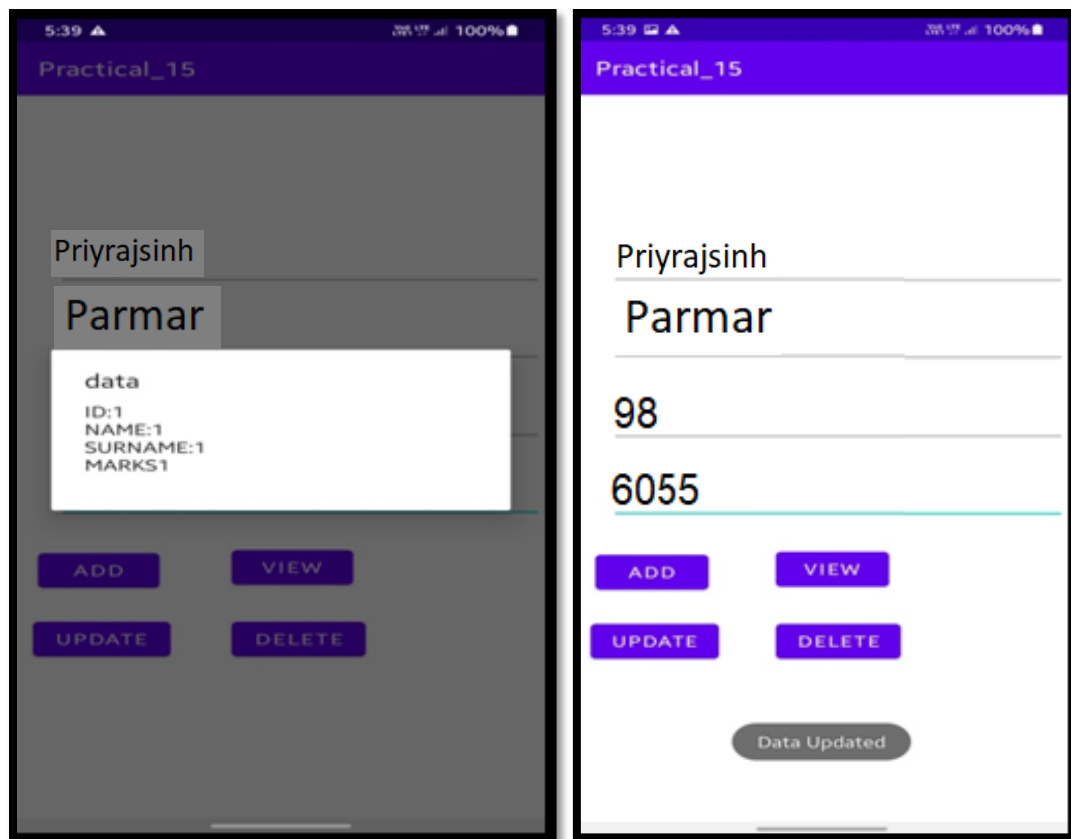
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("create table "+table_name+"(ID INTEGER PRIMARY KEY
        AUTOINCREMENT,NAME TEXT NOT NULL,SURNAME TEXT,MARKS
        INTEGER)");
    }
    public void onUpgrade(SQLiteDatabase db,int oldversion,int newversion)
    {
        db.execSQL("Drop table if EXISTS "+table_name);    onCreate(db);
    }
    public boolean Insertdata(String name,String surname,String marks)
    {
        SQLiteDatabase db = this.getWritableDatabase();    ContentValues
        contentValues = new ContentValues();    contentValues.put(col_2,name);
        contentValues.put(col_3,surname);    contentValues.put(col_4,marks);
        long result = db.insert(table_name,null,contentValues);    if(result==-1)
        {
            return false;
        }
    else    {
        return true;
    }    }
    public Cursor getAllData()
    {
        SQLiteDatabase db = this.getWritableDatabase();
        Cursor res = db.rawQuery("select * from "+table_name,null);    return res;
    }
    public boolean Updatedata(String id,String name,String surname,String marks)
    {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put(col_1,id);    contentValues.put(col_2,name);
        contentValues.put(col_3,surname);    contentValues.put(col_4,marks);
        db.update(table_name,contentValues,"ID=?",new String[]{id});    return
        true;
    }
    public Integer Deletedata(String id)
    {
        SQLiteDatabase db = this.getWritableDatabase();    return
        db.delete(table_name,"ID=?",new String[]{id});
    }
}

```

- **Output: -**





Sign:-

Date:-