

Experiment--8

Aim: Implement an application that writes data on the SD card.

Procedure:

Creating a New project:

- Open Android Studio and then click on File -> New -> New project.
- Then select the Empty Activity and click Next.
- Then type the Application name as “ex.no.8”, select the Minimum SDK and select language as Java then click Finish

Designing layout for the Android Application:

- Click on app -> res -> layout -> activity_main.xml and write the following code

Code for Activity_main.xml:

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

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

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    android:layout_margin="20dp"

    android:orientation="vertical">

    <EditText

        android:id="@+id/editText"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:singleLine="true"

        android:textSize="30dp" />

    <Button

        android:id="@+id/button"

        android:layout_width="match_parent"
```

```

        android:layout_height="wrap_content"

        android:layout_margin="10dp"

        android:text="Write Data"

        android:textSize="30dp" />
<Button

        android:id="@+id/button2"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:layout_margin="10dp"

        android:text="Read data"

        android:textSize="30dp" />
<Button

        android:id="@+id/button3"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:layout_margin="10dp"

        android:text="Clear"

        android:textSize="30dp" />
</LinearLayout>

```

So now the designing part is completed.

Adding permissions in Manifest for the Android Application:

- Click on app -> manifests -> AndroidManifest.xml
- Now include the WRITE_EXTERNAL_STORAGE permissions in the AndroidManifest.xml file as shown below

Code for AndroidManifest.xml:

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

```

<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.exno9" >

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

    <application
        android:allowBackup="true"

        android:icon="@mipmap/ic_launcher"

        android:label="@string/app_name"

        android:supportRtl="true"

        android:theme="@style/AppTheme" >

        <activity android:name=".MainActivity" >

            <intent-filter>

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

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

            </intent-filter>

        </activity>

    </application>

</manifest>

```

So now the Permissions are added in the Manifest.

Java Coding for the Android Application:

- Click on app -> java -> com.example.exno8 -> MainActivity.

Code for MainActivity.java:

```

package com.example.exno8;

import android.os.Bundle;

import android.support.v7.app.AppCompatActivity;

```

```
import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

import java.io.BufferedReader;

import java.io.File;

import java.io.FileInputStream;

import java.io.FileOutputStream;

import java.io.InputStreamReader;

public class MainActivity extends AppCompatActivity

{

    EditText e1;

    Button write,read,clear;

    @Override

    protected void onCreate(Bundle savedInstanceState)

    {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        e1= (EditText) findViewById(R.id.editText);

        write= (Button) findViewById(R.id.button);

        read= (Button) findViewById(R.id.button2);

        clear= (Button) findViewById(R.id.button3);

        write.setOnClickListener(new View.OnClickListener()

        {
```

```

@Override

public void onClick(View v)
{
    String message=e1.getText().toString();
    try
    {
        File f=new File("/sdcard/myfile.txt");
        f.createNewFile();
        FileOutputStream fout=new FileOutputStream(f);
        fout.write(message.getBytes());
        fout.close();

        Toast.makeText(getApplicationContext(),"Data Written in
SDCARD",Toast.LENGTH_LONG).show();
    }
    catch (Exception e)
    {
        Toast.makeText(getApplicationContext(),e.getMessage(),Toast.LENGTH_LONG).show();
    }
}

});

```

```

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

```

```

{
    String message;

    String buf = "";

    try
    {
        File f = new File("/sdcard/myfile.txt");

        FileInputStream fin = new FileInputStream(f);

        BufferedReader br = new BufferedReader(new InputStreamReader(fin));

        while ((message = br.readLine()) != null)
        {
            buf += message;
        }

        e1.setText(buf);

        br.close();

        fin.close();

        Toast.makeText(getBaseContext(), "Data Recived from
SDCARD", Toast.LENGTH_LONG).show();
    }

    catch (Exception e)
    {
        Toast.makeText(getBaseContext(), e.getMessage(),
Toast.LENGTH_LONG).show();
    }
}

});

```

```

clear.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View v)
    {
        e1.setText("");
    }
});
}
}

```

So now the Coding part is also completed.

Now run the application to see the output.

OUTPUT:



