

Department of Computer Science and Engineering

Shivanirudh S G, 185001146, Semester VII

4 October 2021

UCS1711 - Mobile Application Development Lab

Exercise 7: application that writes data to the SD card

Aim:

Implement an application that writes data to the SD card

Code:

Main Activity:

Design:

```

1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout
   xmlns:android="http://schemas.android.com/apk/res/android"
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:layout_width="match_parent"
6   android:layout_height="match_parent"
7   tools:context=".MainActivity">
8
9   <EditText
10     android:id="@+id/edittext_data"
11     android:layout_width="339dp"
12     android:layout_height="52dp"
13     android:layout_marginTop="192dp"
14     android:singleLine="true"
15     android:textSize="30dp"
16     app:layout_constraintEnd_toEndOf="parent"
17     app:layout_constraintStart_toStartOf="parent"
18     app:layout_constraintTop_toTopOf="parent" />
19
20   <Button
21     android:id="@+id/button_write"
22     android:layout_width="286dp"
23     android:layout_height="70dp"
24     android:layout_margin="10dp"
25     android:layout_marginTop="32dp"
26     android:text="Write Data"
27     android:textSize="30dp"
28     app:layout_constraintBottom_toBottomOf="parent"
29     app:layout_constraintEnd_toEndOf="parent"
30     app:layout_constraintHorizontal_bias="0.496"
31     app:layout_constraintStart_toStartOf="parent"
32     app:layout_constraintTop_toBottomOf="@+id/button_read"
33     "
34     app:layout_constraintVertical_bias="0.025" />
35
36   <Button
37     android:id="@+id/button_read"
38     android:layout_width="295dp"
39     android:layout_height="62dp"
40     android:layout_margin="10dp"
41     android:text="Read data"
42     android:textSize="30dp"
43     app:layout_constraintBottom_toBottomOf="parent"
44     app:layout_constraintEnd_toEndOf="parent"

```

```

44         app:layout_constraintHorizontal_bias="0.491"
45         app:layout_constraintStart_toStartOf="parent"
46         app:layout_constraintTop_toTopOf="parent" />
47
48     <Button
49         android:id="@+id/button_clear"
50         android:layout_width="297dp"
51         android:layout_height="53dp"
52         android:layout_margin="10dp"
53         android:text="Clear"
54         android:textSize="30dp"
55         app:layout_constraintBottom_toBottomOf="parent"
56         app:layout_constraintEnd_toEndOf="parent"
57         app:layout_constraintStart_toStartOf="parent"
58         app:layout_constraintTop_toBottomOf="@+id/
button_write"
59         app:layout_constraintVertical_bias="0.061" />
60
61 </androidx.constraintlayout.widget.ConstraintLayout>

```

Behaviour:

```

1 package com.example.sdcard;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6 import android.view.View;
7 import android.widget.Button;
8 import android.widget.EditText;
9 import android.widget.Toast;
10
11 import java.io.BufferedReader;
12 import java.io.File;
13 import java.io.FileInputStream;
14 import java.io.FileOutputStream;
15 import java.io.InputStreamReader;
16
17 public class MainActivity extends AppCompatActivity {
18
19     EditText e1;
20     Button write, read, clear;
21     @Override
22     protected void onCreate(Bundle savedInstanceState) {
23         super.onCreate(savedInstanceState);

```

```

24     setContentView(R.layout.activity_main);
25     e1= (EditText) findViewById(R.id.edittext_data);
26     write= (Button) findViewById(R.id.button_write);
27     read= (Button) findViewById(R.id.button_read);
28     clear= (Button) findViewById(R.id.button_clear);
29
30     write.setOnClickListener(new View.OnClickListener()
31     {
32         @Override
33         public void onClick(View v)
34         {
35             String message=e1.getText().toString();
36             try
37             {
38                 File f=new File("/sdcard/myfile.txt");
39                 f.createNewFile();
40                 FileOutputStream fout=new
FileOutputStream(f);
41                 fout.write(message.getBytes());
42                 fout.close();
43                 Toast.makeText(getApplicationContext(),"Data
Written in SDCARD",Toast.LENGTH_LONG).show();
44             }
45             catch (Exception e)
46             {
47                 Toast.makeText(getApplicationContext(),e.
getMessage(),Toast.LENGTH_LONG).show();
48             }
49         }
50     });
51
52     read.setOnClickListener(new View.OnClickListener()
53     {
54         @Override
55         public void onClick(View v)
56         {
57             String message;
58             String buf = "";
59             try
60             {
61                 File f = new File("/sdcard/myfile.txt");
62                 FileInputStream fin = new FileInputStream
(f);
63                 BufferedReader br = new BufferedReader(
new InputStreamReader(fin));

```

```

64         while ((message = br.readLine()) != null)
65         {
66             buf += message;
67         }
68         e1.setText(buf);
69         br.close();
70         fin.close();
71         Toast.makeText(getApplicationContext(), "Data
Received from SDCARD", Toast.LENGTH_LONG).show();
72     }
73     catch (Exception e)
74     {
75         Toast.makeText(getApplicationContext(), e.
getMessage(), Toast.LENGTH_LONG).show();
76     }
77 }
78 });
79
80 clear.setOnClickListener(new View.OnClickListener()
81 {
82     @Override
83     public void onClick(View v)
84     {
85         e1.setText("");
86     }
87 });
88
89 }
90 }

```

Output:





