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CLASS:- B.E – 4
ROLL NO:- 04
BATCH:- A

Experiment 3
Develop an application that writes data to SD card

Code:

Main Activity:

```
package com.example.externalstorage;
import java.io.BufferedReader;
import java.io.DataInputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStreamReader;
import android.os.Bundle;
import android.app.Activity;
import android.os.Environment;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;


public class MainActivity extends Activity {
    EditText inputText;
    TextView response;
    Button saveButton,readButton;

    private String filename = "SampleFile.txt";
    private String filepath = "MyFileStorage";
    File myExternalFile;
    String myData = "";

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

        inputText = (EditText) findViewById(R.id.myInputText);
        response = (TextView) findViewById(R.id.response);


        saveButton =
                (Button) findViewById(R.id.saveExternalStorage);
        saveButton.setOnClickListener(new OnClickListener() {
            @Override
            public void onClick(View v) {
                try {
```

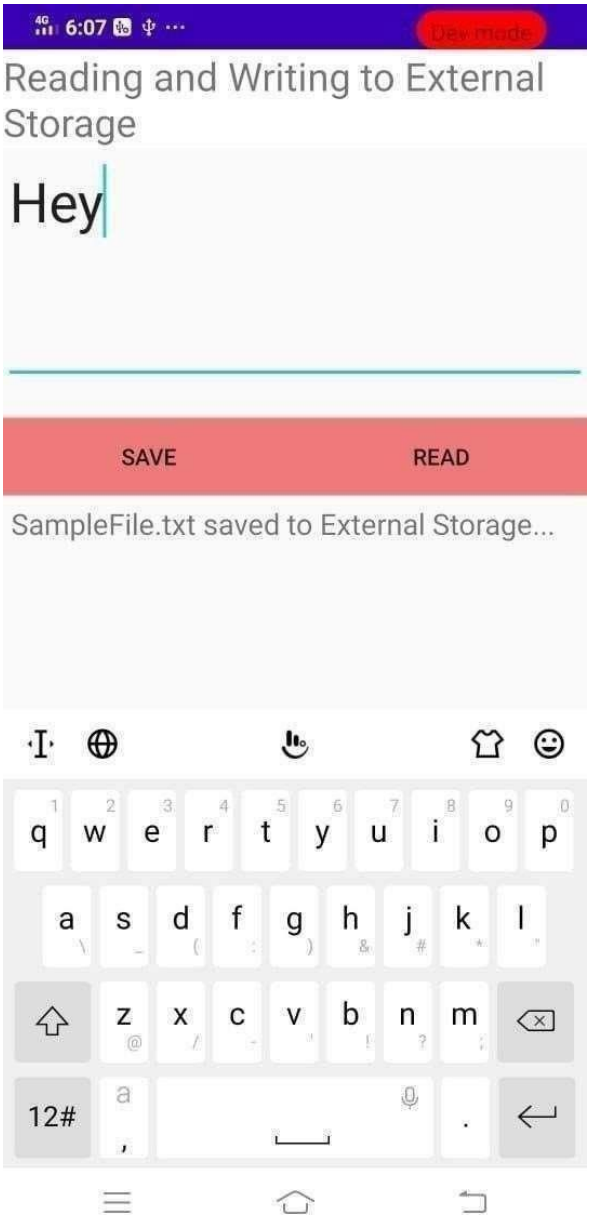
```
                    FileOutputStream fos = new FileOutputStream(myExternalFile);
                fos.write(inputText.getText().toString().getBytes());  fos.close();  }
                catch (IOException e)
                 {
                    e.printStackTrace();
                }
                inputText.setText(""); response.setText("SampleFile.txt saved to External
                        Storage...");
            }
        });


        readButton = (Button)
        findViewById(R.id.getExternalStorage);  readButton.setOnClickListener(new
        OnClickListener() { @Override public void
            onClick(View v) { try {
                    FileInputStream fis = new FileInputStream(myExternalFile);
                     DataInputStream in = new DataInputStream(fis);
                    BufferedReader br = new BufferedReader(new
                            InputStreamReader(in));
                    String strLine; while ((strLine = br.readLine()) != null) { myData =
                    myData + strLine; } in.close();
                } catch (IOException e) {
                    e.printStackTrace();
                }
                   inputText.setText(myData);
response.setText("SampleFile.txt data retrieved from Internal Storage...");
                }
        });

if (!isExternalStorageAvailable() || isExternalStorageReadOnly()) {
saveButton.setEnabled(false);
        } else { myExternalFile = new File(getExternalFilesDir(filepath), filename); }

  }
    private static boolean isExternalStorageReadOnly() {
        String extStorageState = Environment.getExternalStorageState(); if
        (Environment.MEDIA_MOUNTED_READ_ONLY.equals(extStorageState))
            { return true;
        } return false;
    }

    private static boolean isExternalStorageAvailable() {
        String extStorageState = Environment.getExternalStorageState(); if
        (Environment.MEDIA_MOUNTED.equals(extStorageState)) { return true;
        } return false;
```

```
        }    }
```

Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="fill_parent" android:layout_height="fill_parent"
android:orientation="vertical"    tools:ignore="NamespaceTypo">

    <TextView                                    android:layout_width="fill_parent"
        android:layout_height="wrap_content" android:background="#FFFFFF"
        android:text="Reading and Writing to External Storage"
        android:textSize="24sp" />

    <EditText android:id="@+id/myInputText" android:layout_width="match_parent"
        android:layout_height="wrap_content"                                    android:ems="10"
        android:gravity="top|left"          android:inputType="textMultiLine"
        android:lines="5"                                          android:minLines="3"
        android:textAppearance="@style/TextAppearance.AppCompat.Display1">

        <requestFocus />
    </EditText>

    <LinearLayout        android:layout_width="match_parent"
        android:layout_height="wrap_content"     android:orientation="horizontal"
        android:weightSum="1.0" android:layout_marginTop="20dp">

        <Button          android:id="@+id/saveExternalStorage"
            android:layout_width="match_parent"
            android:layout_height="wrap_content" android:layout_weight="0.5"
            android:background="#ED7B7B"
            android:text="SAVE" />

        <Button          android:id="@+id/getExternalStorage"
            android:layout_width="match_parent"
            android:layout_height="wrap_content" android:layout_weight="0.5"
            android:background="#ED7B7B"
            android:text="READ" />

    </LinearLayout>

    <TextView                android:id="@+id/response"        android:layout_width="wrap_content"
        android:layout_height="wrap_content"         android:padding="5dp"         android:text=""
        android:textAppearance="?android:attr/textAppearanceMedium" />

</LinearLayout>
```

Output:


6:07
Dev mode
Reading and Writing to External Storage
Hey
SAVE
READ
SampleFile.txt saved to External Storage...