Practical No. 6

Aim: Write an Android program to demonstrate the working of Internal Storage.

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   android:layout_width="match_parent"
   android:layout_height="match_parent">

   <EditText
      android:id="@+id/edtMessage"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_alignParentLeft="true"
      android:layout_alignParentRight="true"
      android:layout_marginTop="100dp"
      android:textSize="20dp"
      android:hint="Enter Message"
      android:minLines="5">
   </EditText>

   <Button
      android:id="@+id/btnWrite"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Write Text into File"
      android:onClick="btnWrite"
      android:textSize="20dp"
      android:layout_centerInParent="true" />

   <Button
      android:id="@+id/btnRead"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Read Text From file"
      android:onClick="btnRead"
      android:textSize="20dp"
      android:layout_centerInParent="true"
      android:layout_below="@id/btnWrite"/>

   <TextView
      android:id="@+id/tvOutput"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:layout_centerInParent="true"
      android:layout_below="@id/btnRead"
      android:layout_marginTop="100dp"
      android:textSize="20dp"
      android:minLines="5"/>

</RelativeLayout>
```

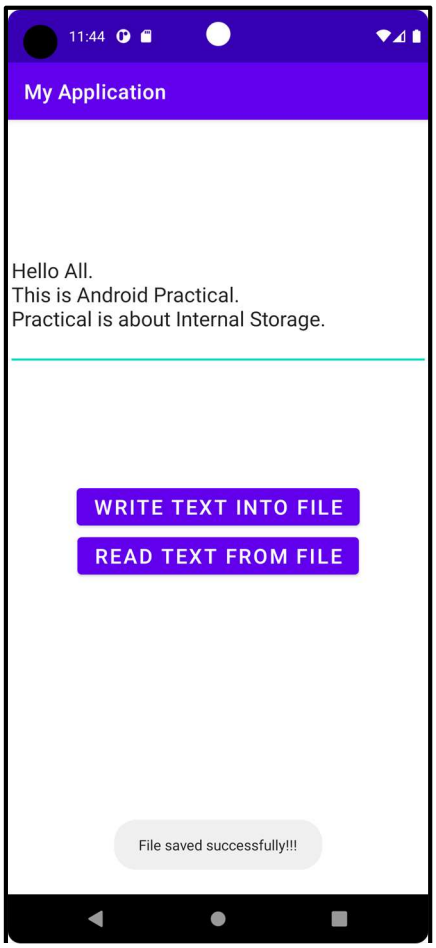
MainActivity.kt

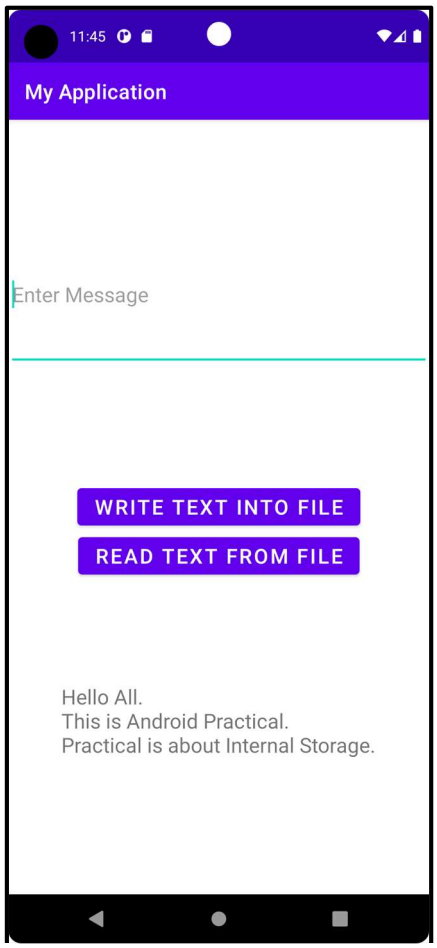
```
package com.example.myapplication

import android.content.Intent
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.EditText
import android.widget.TextView
import android.widget.Toast
import java.io.InputStreamReader
import java.io.OutputStreamWriter

class MainActivity : AppCompatActivity() {

    lateinit var edtMessage: EditText
    lateinit var tvOutput: TextView
    lateinit var btnWrite: Button
    lateinit var btnRead: Button
    private val READ_BLOCK_SIZE = 100

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        edtMessage = findViewById(R.id.edtMessage)
        tvOutput= findViewById(R.id.tvOutput)
        btnWrite = findViewById(R.id.btnWrite)
        btnRead = findViewById(R.id.btnRead)

        btnWrite.setOnClickListener {
            try {
                val fileout = openFileOutput("file.txt", MODE_APPEND)
                val outputWriter = OutputStreamWriter(fileout)
                outputWriter.write(edtMessage!!.text.toString())
                outputWriter.write(System.getProperty("line.separator"));
                outputWriter.close()
                Toast.makeText(this, "File saved successfully!!!",
Toast.LENGTH_SHORT).show()
            } catch (e: Exception) {
                e.printStackTrace()
            }
        }

        btnRead.setOnClickListener {
            try {
                val fileIn = openFileInput("file.txt")
                val inputRead = InputStreamReader(fileIn)
                val inputBuffer = CharArray(READ_BLOCK_SIZE)
                var s: String = ""
                var charRead: Int
                while (inputRead.read(inputBuffer).also { charRead = it } > 0) {
                    val readstring = String(inputBuffer,0,charRead)
```

```
                s += readstring
            }
            if (s.isNullOrBlank())
            {
                Toast.makeText(this, "First enter some data in the file!!!",
Toast.LENGTH_SHORT).show()
            }
            else
            {
                tvOutput.setText(s)
            }
            inputRead.close()
            edtMessage.setText("")
        } catch (e: Exception) {
            e.printStackTrace()
        }
    }
}
}
```

Output


11:40
My Application
Enter Message
WRITE TEXT INTO FILE
READ TEXT FROM FILE


11:44
My Application
Hello All.
This is Android Practical.
Practical is about Internal Storage.
WRITE TEXT INTO FILE
READ TEXT FROM FILE
File saved successfully!!!


11:45
My Application
Enter Message
WRITE TEXT INTO FILE
READ TEXT FROM FILE
Hello All.
This is Android Practical.
Practical is about Internal Storage.