DATE:22/03/2024

AIM:-

Implement an application to write the Register Number, Name and CGPA to SD card in text file format.

PROCEDURE:-

Step 1: Add permissions.

Step 2: Check external storage availability.

Step 3: Write data to file.

Step 4: Handle errors.

Step 5:Test the application.

PRGRAM CODE:-

AndroidManifest.xml:

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

   package="com.example.writetofile">

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

   <application

      android:allowBackup="true"

      android:icon="@mipmap/ic_launcher"

      android:label="@string/app_name"

      android:roundIcon="@mipmap/ic_launcher_round"
```

```xml
        android:supportsRtl="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>
```

activity_main.xml:

```xml
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity">

    <EditText

        android:id="@+id/editTextName"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:hint="Enter Name" />

    <EditText

        android:id="@+id/editTextMarks"
```

```xml
        android:layout_below="@id/editTextName"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:layout_marginTop="16dp"

        android:hint="Enter Marks" />

    <Button

        android:id="@+id/buttonWriteToFile"

        android:layout_below="@id/editTextMarks"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_centerHorizontal="true"

        android:layout_marginTop="16dp"

        android:text="Write to File" />

</RelativeLayout>
```

MainActivity.kt:

```kotlin
package com.example.writetofile

import android.os.Bundle

import android.os.Environment

import android.widget.Button

import android.widget.EditText

import android.widget.Toast

import androidx.appcompat.app.AppCompatActivity

import java.io.File
```

```kotlin
import java.io.FileOutputStream

class MainActivity : AppCompatActivity() {

    override fun onCreate(savedInstanceState: Bundle?) {

        super.onCreate(savedInstanceState)

        setContentView(R.layout.activity_main)

        val editTextName = findViewById<EditText>(R.id.editTextName)

        val editTextMarks = findViewById<EditText>(R.id.editTextMarks)

        val buttonWriteToFile = findViewById<Button>(R.id.buttonWriteToFile)

        buttonWriteToFile.setOnClickListener {

            val name = editTextName.text.toString()

            val marks = editTextMarks.text.toString()

            if (name.isNotEmpty() && marks.isNotEmpty()) {

                writeToFile(name, marks)

            } else {

                Toast.makeText(this, "Name and marks cannot be empty",
Toast.LENGTH_SHORT).show()

            }

        }

    }

    private fun writeToFile(name: String, marks: String) {

        val fileName = "student_details.txt"

        val fileContent = "$name: $marks"

        val root = Environment.getExternalStorageDirectory()
```

```kotlin
        val file = File(root, fileName)

        try {

            val fileOutputStream = FileOutputStream(file, true)

            fileOutputStream.write(fileContent.toByteArray())

            fileOutputStream.write("\n".toByteArray())

            fileOutputStream.close()

            Toast.makeText(this, "Data written to $fileName",
Toast.LENGTH_SHORT).show()

        } catch (e: Exception) {

            e.printStackTrace()

            Toast.makeText(this, "Failed to write data to $fileName",
Toast.LENGTH_SHORT).show()

        }

    }

}
```
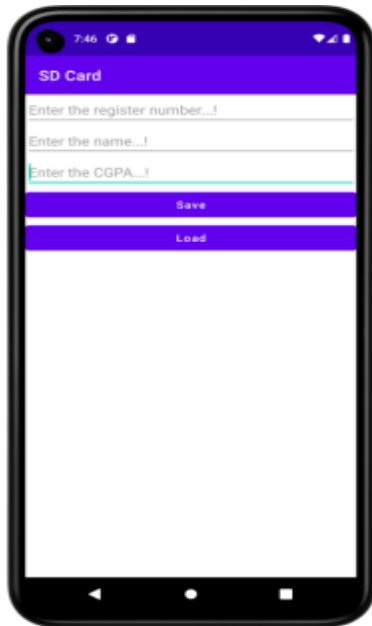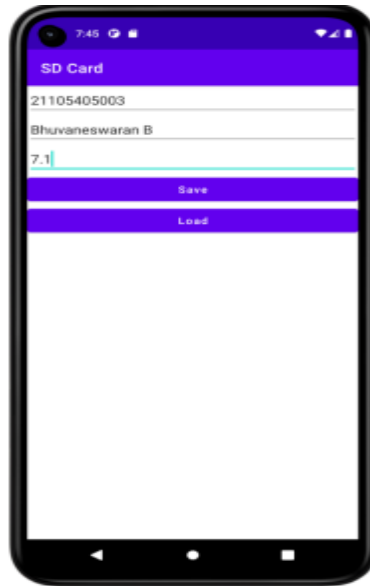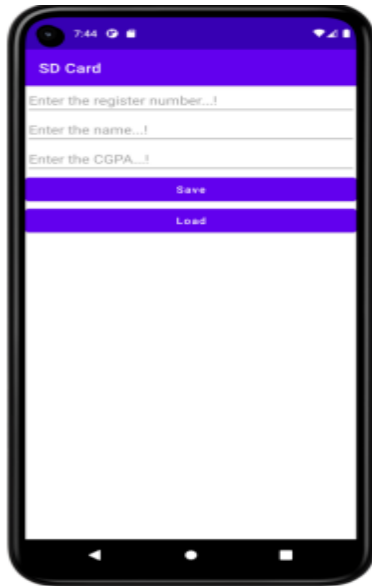
OUTPUT:-

RESULT:-

Thus to implement an application to write the Register Number, Name and CGPA to SD card in text file format.is implemented and executed successfully.