Ex. No.   :   06   **Date: 25/03/2025**

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SD CARD FILE SAVING

Aim

Implement an application to write the name and CGPA to SD card in text file format.

Procedure:

Step 1 : File -> NewProject

Provide the application name and Click "Next"

Step 2 : Select the target android devices

Select the minimum SDK to run the application. Click "Next".

Step 3 : Choose the activity for the application (By default choose "Blank Activity).

Click "Next".

Step 4 : Enter activity name and click "Finish".

Step 5 : Edit the program.

Step 6 : Run the application, 2-ways to run the application.

1. Running through emulator

2. Running through mobile device

AndroidManifest.xml

```xml
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.ex7">

    <uses-permission
android:name="android.permission.WRITE_EXTERNAL_STORAGE"
        android:maxSdkVersion="28" />
    <uses-permission
android:name="android.permission.READ_EXTERNAL_STORAGE"    />

    <application
        android:allowBackup="true"
        android:label="SD Card Writer"
        android:supportsRtl="true"
        android:theme="@style/Theme.AppCompat.Light.NoActionBar">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action  android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

MainActivity.kt

```kotlin
package com.example.ex7

import
android.annotation.Suppre
ssLint
import android.os.Bundle
import
android.widget.Toast
import
androidx.appcompat.app.A
ppCompatActivity
```

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```kotlin
import
com.example.ex7.databindi
ng.ActivityMainBinding
import java.io.File
import
java.io.FileOutputStream

class MainActivity :
AppCompatActivity() {

    private lateinit var
binding:
ActivityMainBinding

    override fun
onCreate(savedInstanceSta
te: Bundle?) {

super.onCreate(savedInsta
nceState)
        binding =
ActivityMainBinding.inflat
e(layoutInflater)

setContentView(binding.ro
ot)


binding.btnSave.setOnClic
kListener {
        val name =
binding.editName.text.toSt
ring().trim()
```

```kotlin
        val marks =
binding.editMarks.text.toSt
ring().trim()

        if (name.isEmpty()
|| marks.isEmpty()) {

Toast.makeText(this,
"Please enter both fields",
Toast.LENGTH_SHORT).s
how()
        } else {

saveToSDCard(name,
marks)
        }
    }
  }


@SuppressLint("SetTextI1
8n")
   private fun
saveToSDCard(name:
String, marks: String) {
      try {
        val fileName =
"student_data.txt"
        val fileDir =
getExternalFilesDir(null)
// app-specific external
storage
        val file =
```

```kotlin
File(fileDir, fileName)

        val
fileOutputStream =
FileOutputStream(file,
true) // true for append
mode
        val data = "Name:
$name, Marks: $marks\n"

fileOutputStream.write(dat
a.toByteArray())

fileOutputStream.close()


binding.txtStatus.text =
"Saved to:
${file.absolutePath}"
    } catch (e: Exception) {

Toast.makeText(this,
"Error: ${e.message}",
Toast.LENGTH_LONG).sh
ow()
    }
  }
}
```

Activivty_main.xml

```xml
<?xml version="1.0"
encoding="utf-8"?>
<LinearLayout
xmlns:android="http://sche
mas.android.com/apk/res/a
ndroid"

android:layout_width="mat
ch_parent"

android:layout_height="ma
tch_parent"
    android:padding="20dp"

android:orientation="vertic
al"

android:gravity="center_ho
rizontal">

    <TextView

android:layout_width="wra
p_content"

android:layout_height="wr
ap_content"
        android:text="Student
Record Entry"

android:textSize="22sp"

android:textStyle="bold"
```

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```xml
        android:layout_marginBott
om="20dp" />

    <EditText

android:id="@+id/editNam
e"

android:layout_width="mat
ch_parent"

android:layout_height="wr
ap_content"
        android:hint="Enter
Name" />

    <EditText

android:id="@+id/editMark
s"

android:layout_width="mat
ch_parent"

android:layout_height="wr
ap_content"
        android:hint="Enter
Marks"

android:inputType="numb
er" />
```

```xml
    <Button

android:id="@+id/btnSave"

android:layout_width="wra
p_content"

android:layout_height="wr
ap_content"
        android:text="Save to
SD Card"

android:layout_marginTop
="20dp" />

   <TextView

android:id="@+id/txtStatus
"

android:layout_width="wra
p_content"

android:layout_height="wr
ap_content"

android:textColor="#4CAF
50"

android:layout_marginTop
="20dp"/>
</LinearLayout>
```
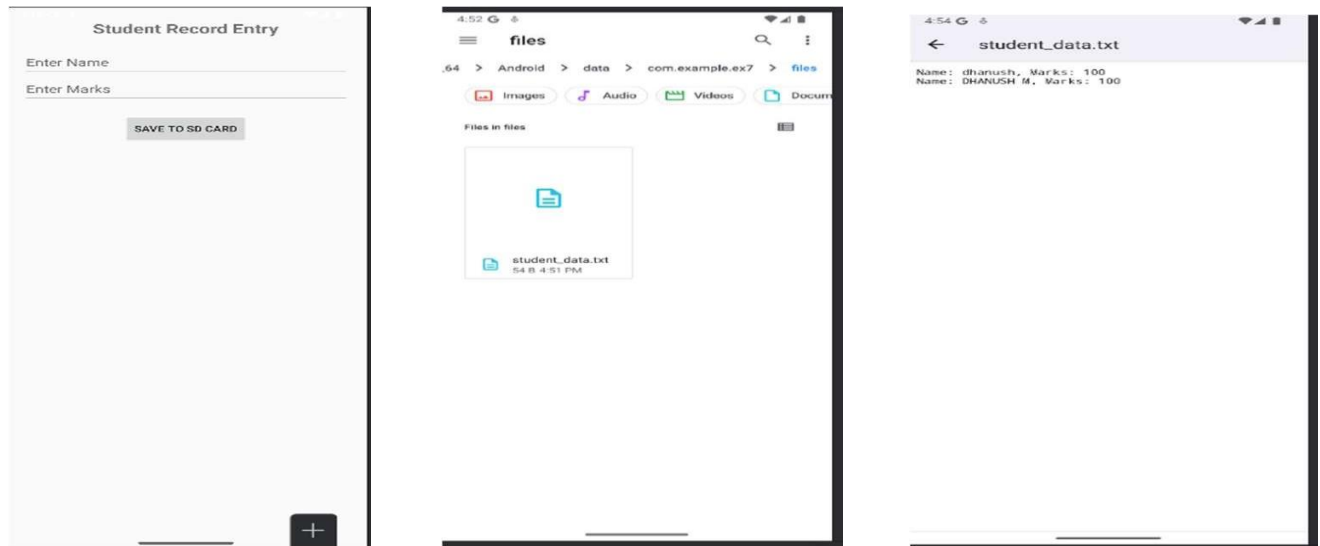
Output :

Result:

The Application developed using Android Studio was done.