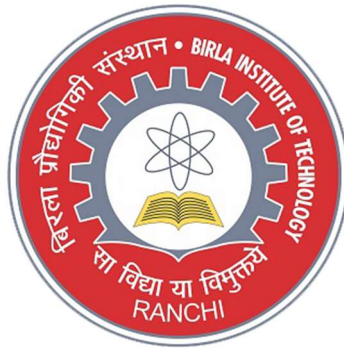


Birla Institute of Technology, Mesra, Patna Campus



MI-Assignment

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Roll-Btech/15044/18

Sec-CSE 6th

#Assignment-8

Problem Statement :

Implement an application that writes data to the SD card.

Code :

MainActivity.java

```
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;

import android.Manifest;
import android.content.DialogInterface;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

import java.io.BufferedReader;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.InputStreamReader;
import java.io.OutputStreamWriter;

public class MainActivity extends AppCompatActivity implements
View.OnClickListener {
```

```
int storage_permission_code = 1;
EditText editText;
```

```
@Override
```

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

    editText = findViewById(R.id.txtData);

    findViewById(R.id.readData).setOnClickListener(this);
    findViewById(R.id.writeData).setOnClickListener(this);
    findViewById(R.id.clearData).setOnClickListener(this);
}
```

```
@Override
```

```
public void onClick(View v) {
    if (v.getId() == R.id.readData) {
        try {
            File file = new File("/sdcard/myfile.txt");

            FileInputStream fin = new FileInputStream(file);
            BufferedReader bf = new BufferedReader(new
InputStreamReader(fin));
            String drow = "";
            String dbuf = "";

            while ((drow = bf.readLine()) != null) {
                dbuf += drow + '\n';
            }

            editText.setText(dbuf);
            bf.close();
            fin.close();
        }
    }
}
```

```

        } catch (Exception e) {
            e.printStackTrace();
            Toast.makeText(this, e.toString(),
Toast.LENGTH_SHORT).show();
        }
    }

    if (v.getId() == R.id.writeData) {

        if (ContextCompat.checkSelfPermission(MainActivity.this,
            Manifest.permission.WRITE_EXTERNAL_STORAGE) ==
PackageManager.PERMISSION_GRANTED) {
            //Toast.makeText(this,"You have already granted this
permission", Toast.LENGTH_SHORT).show();
            writeMethod();
        } else {
            requestStoragePermission();
        }

    }

    if (v.getId() == R.id.clearData) {
        editText.setText("");
    }
}

private void writeMethod() {
    try {
        File file = new File("/sdcard/myfile.txt");
        file.createNewFile();
        FileOutputStream fout = new FileOutputStream(file);
        OutputStreamWriter mout = new OutputStreamWriter(fout);
        mout.append(editText.getText().toString());
        mout.close();
        fout.close();
    }
}

```

```
        Toast.makeText(this, "Data written to SDCARD",  
        Toast.LENGTH_SHORT).show();
```

```
    } catch (Exception e) {  
        e.printStackTrace();  
        Toast.makeText(this, e.toString(), Toast.LENGTH_SHORT).show();  
    }  
}
```

```
private void requestStoragePermission() {  
    if (ActivityCompat.shouldShowRequestPermissionRationale(this,  
    Manifest.permission.WRITE_EXTERNAL_STORAGE)) {  
  
        new AlertDialog.Builder(this)  
            .setTitle("permission needed")  
            .setMessage("This permission is needed for writing data")  
            .setPositiveButton("ok", new DialogInterface.OnClickListener()  
{  
  
                @Override  
                public void onClick(DialogInterface dialog, int which) {  
                    ActivityCompat.requestPermissions(MainActivity.this, new  
String[]{Manifest.permission.WRITE_EXTERNAL_STORAGE},  
storage_permission_code);  
                }  
            })  
            .setNegativeButton("cancel", new  
DialogInterface.OnClickListener() {  
                @Override  
                public void onClick(DialogInterface dialog, int which) {  
                    dialog.dismiss();  
                }  
            })  
            .create().show();  
  
    } else {
```

```

        ActivityCompat.requestPermissions(this, new
String[]{Manifest.permission.WRITE_EXTERNAL_STORAGE},
storage_permission_code);
    }
}

@Override
public void onRequestPermissionsResult(int requestCode, String[]
permissions, int[] grantResults) {
    super.onRequestPermissionsResult(requestCode, permissions,
grantResults);
    if (requestCode == storage_permission_code) {
        if (grantResults.length > 0 && grantResults[0] ==
PackageManager.PERMISSION_GRANTED) {
            //Toast.makeText(this, "permission granted",
Toast.LENGTH_SHORT).show();
            writeMethod();
        } else {
            Toast.makeText(this, "permission denied",
Toast.LENGTH_SHORT).show();
        }
    }
}
}
}

```

activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"

```

```
android:layout_width="match_parent"
android:gravity="center"
android:orientation="vertical"
android:layout_height="match_parent"
tools:context=".MainActivity">
```

```
<EditText
```

```
    android:id="@+id/txtData"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textPersonName"
    android:hint="Enter text"
    app:layout_constraintBottom_toTopOf="@+id/readData"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

```
<Button
```

```
    android:id="@+id/writeData"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Write data"
    app:layout_constraintBottom_toTopOf="@+id/clearData"
    app:layout_constraintEnd_toEndOf="@+id/readData"
    app:layout_constraintStart_toStartOf="@+id/readData"
    app:layout_constraintTop_toBottomOf="@+id/readData" />
```

```
<Button
```

```
    android:id="@+id/readData"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

```
android:text="Read data"
app:layout_constraintBottom_toTopOf="@+id/writeData"
app:layout_constraintEnd_toEndOf="@+id/txtData"
app:layout_constraintStart_toStartOf="@+id/txtData"
app:layout_constraintTop_toBottomOf="@+id/txtData" />
```

```
<Button
```

```
    android:id="@+id/clearData"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Clear data"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="@+id/writeData"
    app:layout_constraintStart_toStartOf="@+id/writeData"
    app:layout_constraintTop_toBottomOf="@+id/writeData" />
```

```
</LinearLayout>
```

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.by.assignment8">

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



```
    android:supportRtl="true"
    android:theme="@style/Theme.Assignment8">
    <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>
```

Output :-

5:23 PM

...4.3KB/s 4G

Assignment 8

Enter text

WRITE DATA

READ DATA

CLEAR DATA

5:24 PM

...4.5KB/s VoLTE 4G   45 

Assignment 8

ANDROID DEVELOPMENT

WRITE DATA

READ DATA

CLEAR DATA

5:25 PM

...6.6KB/s VoLTE 4G 45



Internal storage >



Style

1 item | 29/04/21 9:52 PM



Subtitles

0 items | 30/03/21 8:57 PM



Video

0 items | 29/05/21 7:32 PM



VidMate

6 items | 04/04/21 12:47 PM



WhatsApp

3 items | 31/03/21 2:00 AM



Xender

0 items | 23/04/20 10:41 PM



dctp

2B | 08/06/21 5:13 PM



did

41B | 08/06/21 5:14 PM



myfile.txt

19B | 09/06/21 5:24 PM



5:25 PM

...3.7KB/s     



myfile.txt

ANDROID DEVELOPMENT