Exp 9: Storage in Internal Storage

1. Create Empty Views Project
2. Activity_main.xml

```
<EditText
    android:id="@+id/edittext"
    android:layout_width="match_parent"
    android:layout_height="200dp"/>

  <Button
    android:id="@+id/savetext"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/edittext"
    android:layout_centerHorizontal="true"
    android:onClick="save"
    android:text="Save" />
```

Create One More Button for Loading the data

3. Activity_Main.java

MainActivity (extends AppCompatActivity)

- **Constant:**
  - **FILENAME = "example.txt"**
- **UI Component:**
  - **EditText editText**
- **onCreate(Bundle savedInstanceState)**
  - **setContentView(activity_main)**
  - **editText ← findViewById(R.id.edittext)**
- **save(View v)**
  - **Get text from editText**
  - **Try:**
    - **Open FileOutputStream with MODE_PRIVATE**
    - **Write text to file**
    - **Clear editText**
    - **Show Toast with save location**
  - **Finally:**

| └── Close FileOutputStream safely

|

└── load(View v)

** ├── Try:**

** | ├── Open FileInputStream**

** | ├── Wrap in InputStreamReader and BufferedReader**

** | ├── Read lines into StringBuilder**

** | └── Set text to editText**

** └── Finally:**

** └── Close FileInputStream safely**

```
package com.example.storage;

import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

import java.io.BufferedReader;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStreamReader;

public class MainActivity extends AppCompatActivity {

    private static final String FILENAME="example.txt";
```

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


        editText=findViewById(R.id.edittext);


        }


        public void save(View v)
        {
            String text=editText.getText().toString();
            FileOutputStream fos=null;


            try
            {
                fos=openFileOutput(FILENAME,MODE_PRIVATE);
                fos.write(text.getBytes());
                editText.getText().clear();
                Toast.makeText(MainActivity.this,"Saved Data To" + getFilesDir() + "/" +
FILENAME,Toast.LENGTH_SHORT).show();
            }
            catch (FileNotFoundException e)
            {
                throw new RuntimeException(e);
            }
            catch (IOException e)
            {
                throw new RuntimeException(e);
            }
            finally
            {
                if(fos!=null)
```

```
        {
            try
            {
                fos.close();
            }
            catch (IOException e)
            {
                throw new RuntimeException(e);
            }
        }
    }
}

public void load(View v)
{
    FileInputStream fis=null;
    try
    {
        fis=openFileInput(FILENAME);
        InputStreamReader isr=new InputStreamReader(fis);
        BufferedReader br=new BufferedReader(isr);
        StringBuilder sb= new StringBuilder();
        String text;

        while((text=br.readLine()) !=null)
        {
            sb.append(text).append("/n");
        }

        editText.setText(sb.toString());

    }
    catch (FileNotFoundException e)
    {
```

```
            throw new RuntimeException(e);
        }
        catch (IOException e)
        {
            throw new RuntimeException(e);
        }
        finally
        {
            if(fis!=null)
            {
                try
                {
                    fis.close();
                }
                catch (IOException e)
                {
                    throw new RuntimeException(e);
                }
            }
        }
    }
}
```