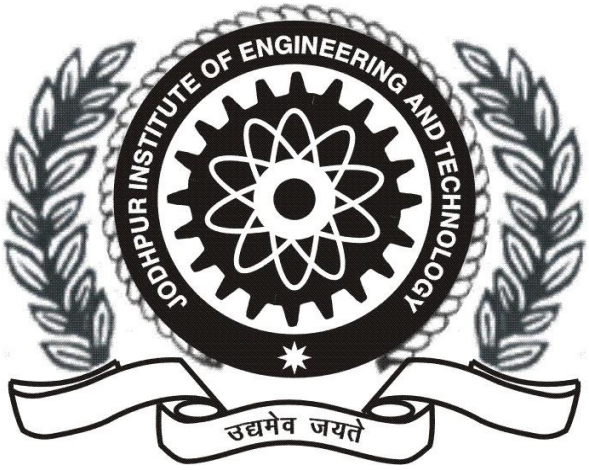
ANDROID LAB PROJECT

ON

(Notes App)

In fulfillment of

B.Tech. III yr **(Computer Science & Engineering.)**



Submitted To:

Rounak Rajpurohit

Submitted by:

Abhishek Malav

22EJICS010

Jodhpur Institute of Engineering and Technology, Jodhpur
Department of Computer Science and Engineering

Session 2022-26

SUMMARY

The Notes App is a simple and intuitive Android application designed to help users create, organize, and manage their notes digitally. The project was motivated by the increasing need for a mobile solution to replace traditional paper-based note-taking, offering greater convenience and accessibility. Key features include the ability to create, edit, delete, and organize notes, along with search functionality, auto-save, cloud backup, dark mode, and password protection. This app is highly useful for boosting productivity, offering mobility, and ensuring data security. In conclusion, the Notes App serves as a versatile tool for individuals seeking an efficient and eco-friendly way to manage their daily tasks, ideas, and important information.

TECHNICAL DETAILS

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout
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:id="@+id/main"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity">


    <TextView

        android:id="@+id/textView3"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:layout_margin="20dp"

        android:gravity="center"

        android:text="@string/application_heading"

        android:textSize="20dp"

        android:textStyle="bold"

        app:layout_constraintTop_toTopOf="parent"

        tools:layout_editor_absoluteX="0dp" />
```

```
    <ListView
        android:id="@+id/listView"
        android:layout_width="match_parent"
        android:layout_height="537dp"
        android:layout_margin="20dp"
        app:layout_constraintTop_toBottomOf="@+id/textView3"
        tools:layout_editor_absoluteX="0dp" />

    <Button
        android:id="@+id/add_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Add Note"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/listView"
        app:layout_constraintVertical_bias="0.722" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

List_item.xml

```
<!-- res/layout/list_item.xml -->
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="10dp">

    <TextView
        android:id="@+id/textView"
        android:layout_width="0dp"
```

```
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:hint="Empty Element" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="10dp"
        android:text="Open" />

    <Button
        android:id="@+id/delete_button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="10dp"
        android:text="Delete" />
</LinearLayout>
```

Activity_add_note.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp">

    <EditText
        android:id="@+id/editTextNote"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter your note here"
        android:inputType="text"
```

```
        android:textSize="20sp" />

    <Button
        android:id="@+id/buttonAddNote"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Add Note" />
</LinearLayout>
```

MaiA.java

```
package org.geeksforgeeks.simple_notes_application_java;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ListView;

import androidx.appcompat.app.AppCompatActivity;

import java.util.ArrayList;
import java.util.List;

public class MainActivity extends AppCompatActivity {

    private static final int REQUEST_CODE_ADD_NOTE = 1;
    private MyAdapter adapter;
    private List<String> items;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);

    ListView listView = findViewById(R.id.listView);
    Button addNoteButton = findViewById(R.id.add_button);

    // Initialize the list of items
    items = new ArrayList<>();

    // Add a temporary item
    items.add("Temp Add Element");

    // Create the adapter and set it to the ListView
    adapter = new MyAdapter(this, items);
    listView.setAdapter(adapter);

    // Set click listener for the add note button
    addNoteButton.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent = new Intent(MainActivity.this, AddNoteActivity.class);
            startActivityForResult(intent, REQUEST_CODE_ADD_NOTE);
        }
    });
}

@Override
protected void onActivityResult(int requestCode, int resultCode, Intent data) {
    super.onActivityResult(requestCode, resultCode, data);

    if (requestCode == REQUEST_CODE_ADD_NOTE && resultCode == RESULT_OK) {
        String newNote = data.getStringExtra("NEW_NOTE");
```

```
            if (newNote != null) {
                items.add(newNote);
                adapter.notifyDataSetChanged();
            }
        }
    }
}
```

MyAdaptar.java

```
package org.geeksforgeeks.simple_notes_application_java;

import android.content.Context;
import android.content.Intent;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;

import java.util.List;

public class MyAdapter extends ArrayAdapter<String> {
    private final Context context;
    private final List<String> values;

    public MyAdapter(Context context, List<String> values) {
        super(context, R.layout.list_item, values);
        this.context = context;
        this.values = values;
    }
```

```
    @Override
    public View getView(final int position, View convertView, ViewGroup parent) {
        LayoutInflater inflater = (LayoutInflater)
context.getSystemService(Context.LAYOUT_INFLATER_SERVICE);
        View rowView = inflater.inflate(R.layout.list_item, parent, false);

        TextView textView = rowView.findViewById(R.id.textView);
        Button openButton = rowView.findViewById(R.id.button);
        Button deleteButton = rowView.findViewById(R.id.delete_button);

        textView.setText(values.get(position));

        openButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Start DetailActivity and pass the item data
                Intent intent = new Intent(context, DetailActivity.class);
                intent.putExtra("ITEM", values.get(position));
                context.startActivity(intent);
            }
        });

        deleteButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(context, "Delete button clicked for item " + values.get(position),
Toast.LENGTH_SHORT).show();
                // Remove the item from the list
                values.remove(position);
                // Notify the adapter to refresh the list view
                notifyDataSetChanged();
```

```
        }
    });

    return rowView;
  }
}
```

String.xml

```
<resources>
  <string name="app_name">Simple_Notes_Application_Java</string>
  <string name="application_heading">Simple Notes Application GFG</string>
</resources>
```

FEATURES

Features of the Notes App:

- Simple and Intuitive Interface:
  The app provides a minimalistic design, making it easy to navigate and use even for non-technical users.
- Create, Edit, and Delete Notes:
  Users can quickly create new notes, edit existing ones, or delete those that are no longer needed.
- Organize Notes into Categories:
  Users can group their notes into different categories such as Personal, Work, Ideas, etc., to easily find and manage notes.
- Auto-Save:
  The app automatically saves any changes made to the notes, so users don't have to worry about losing their data.

MOTIVATION OF THE PROJECT

The idea behind the Notes App stems from the increasing need for individuals to organize and manage their thoughts, tasks, and ideas digitally. In a fast-paced world, people often need a simple, intuitive, and reliable tool to jot down quick notes, to-do lists, reminders, or even longer texts like diary entries. Traditional paper-based methods can be cumbersome, difficult to manage, and prone

to loss. Hence, an Android app for note-taking offers a mobile and user-friendly solution that allows users to create, edit, and organize their notes conveniently from their smartphones.

USEFULNESS OF THE PROJECT

The Notes App is highly useful in various contexts:

- Productivity:
  By helping users keep track of their daily tasks, ideas, and projects, the app significantly boosts productivity and helps users manage their time efficiently.
- Mobility and Convenience:
  Users can carry all their important notes with them wherever they go, and access them anytime, without the need for bulky notebooks or paper.
- Eco-friendly:
  Going digital helps reduce paper waste, making this app an environmentally friendly option for note-taking.

CONCLUSION

The Notes App for Android is a simple yet powerful tool that addresses the need for efficient note-taking and organization in the digital age. It offers users flexibility, ease of use, and security for managing their daily tasks, ideas, and important information. With features like backup and password protection, it provides users with a reliable way to store and safeguard their data. Overall, the app serves as a helpful productivity tool that adapts to various user needs, from casual note-taking to professional task management.

REFERENCES

1. Android Developers Documentation: https://developer.android.com/docs
2. GeeksForGeeks Android Tutorials: https://www.geeksforgeeks.org