Ex. No.   :   08 - B   Date :

Register No. :   221701051   Name : SELVAHARIBALAN S

Send EMAIL

Aim

Develop an application to send Email.

Procedure:

Step 1 : File → New Project

Provide the application name (e.g.,"Email") 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

Design the UI for entering recipient email, subject, and message.

Use an implicit intent (Intent.ACTION_SEND) in MainActivity.kt to

trigger the email client with pre-filled details.

Step 6 : Run the application

Two ways to run the application:

1. Running through emulator

2. Running through mobile device

AndroidManifest.xml

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

    <!-- Add internet permission -->
    <uses-permission android:name="android.permission.INTERNET" />

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.SendEmail">
        <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>
```

Activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical"
    tools:context=".MainActivity">
    <!-- Header -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="@color/purple_primary"
        android:padding="16dp"
        android:text="Send Email"
        android:textColor="@android:color/white"
        android:textSize="20sp"
        android:textStyle="bold"
        android:contentDescription="Send Email screen" />
    <!-- Email To Field -->
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginTop="16dp"
        android:text="To"
        android:textColor="@android:color/black"
        android:labelFor="@+id/to_edit_text" />
    <EditText
        android:id="@+id/to_edit_text"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="16dp"
        android:background="@drawable/edit_text_bottom_line"
```

```xml
        android:hint="Email address"

        android:importantForAutofill="yes"

        android:autofillHints="emailAddress"

        android:inputType="textEmailAddress"

        android:padding="16dp"

        android:minHeight="48dp"

        android:textSize="16sp" />

<!-- Subject Field -->

<TextView

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginStart="16dp"

        android:layout_marginTop="16dp"

        android:text="Subject"

        android:textColor="@android:color/black"

        android:labelFor="@+id/subject_edit_text" />

<EditText

        android:id="@+id/subject_edit_text"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:layout_marginStart="16dp"

        android:layout_marginEnd="16dp"

        android:background="@drawable/edit_text_bottom_line"

        android:hint="Subject"

        android:importantForAutofill="yes"

        android:autofillHints="subject"

        android:inputType="textCapSentences"

        android:padding="16dp"

        android:minHeight="48dp"

        android:textSize="16sp" />

<!-- Message Field -->

<TextView

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginStart="16dp"

        android:layout_marginTop="16dp"

        android:text="Message"
```

```xml
        android:textColor="@android:color/black"
        android:labelFor="@+id/message_edit_text" />
    <EditText
        android:id="@+id/message_edit_text"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginEnd="16dp"
        android:background="@drawable/edit_text_bottom_line"
        android:gravity="top"
        android:hint="Type your message"
        android:importantForAutofill="yes"
        android:autofillHints="emailBody"
        android:inputType="textMultiLine"
        android:minLines="3"
        android:minHeight="96dp"
        android:padding="16dp"
        android:textSize="16sp" />
    <!-- Send Button -->
    <Button
        android:id="@+id/send_button"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginStart="16dp"
        android:layout_marginTop="24dp"
        android:layout_marginEnd="16dp"
        android:background="@drawable/purple_button_background"
        android:text="Send"
        android:textAllCaps="false"
        android:textColor="@android:color/white"
        android:minHeight="48dp"
        android:textSize="16sp" />
</LinearLayout>
```

MainActivity.kt

```kotlin
package com.example.email

import android.content.Intent

import android.net.Uri

import android.os.Bundle

import android.widget.Button

import android.widget.EditText

import android.widget.Toast

import android.appcompat.app.AppCompatActivity


class MainActivity : AppCompatActivity() {


    private lateinit var toEditText: EditText

    private lateinit var subjectEditText: EditText

    private lateinit var messageEditText: EditText

    private lateinit var sendButton: Button


    override fun onCreate(savedInstanceState: Bundle?) {

        super.onCreate(savedInstanceState)

        setContentView(R.layout.activity_main)


        // Initialize UI components

        toEditText = findViewById(R.id.to_edit_text)

        subjectEditText = findViewById(R.id.subject_edit_text)

        messageEditText = findViewById(R.id.message_edit_text)

        sendButton = findViewById(R.id.send_button)


        // Set up send button click listener

        sendButton.setOnClickListener {

            sendEmail()
```

```kotlin
    }

  }


    private fun sendEmail() {

        val recipient = toEditText.text.toString().trim()

        val subject = subjectEditText.text.toString().trim()

        val message = messageEditText.text.toString().trim()


        // Basic validation

        if (recipient.isEmpty()) {

            Toast.makeText(this, "Please enter recipient email",
Toast.LENGTH_SHORT).show()

            return

        }


        try {

            // Try first with ACTION_SENDTO (preferred way for email)

            val emailIntent = Intent(Intent.ACTION_SENDTO).apply {

                data = Uri.parse("mailto:") // only email apps should handle
this

                putExtra(Intent.EXTRA_EMAIL, arrayOf(recipient))

                putExtra(Intent.EXTRA_SUBJECT, subject)

                putExtra(Intent.EXTRA_TEXT, message)

            }


            // Check if there's a matching activity

            if (emailIntent.resolveActivity(packageManager) != null) {

                startActivity(emailIntent)

                return

            }


            // Fallback to ACTION_SEND (more general, will show more apps)
```

```kotlin
        val sendIntent = Intent(Intent.ACTION_SEND).apply {

            type = "message/rfc822" // email mime type

            putExtra(Intent.EXTRA_EMAIL, arrayOf(recipient))

            putExtra(Intent.EXTRA_SUBJECT, subject)

            putExtra(Intent.EXTRA_TEXT, message)

        }


        // Use createChooser to always show options even if default is set

        startActivity(Intent.createChooser(sendIntent, "Send email
using..."))


    } catch (e: Exception) {

        // Show more detailed error message

        Toast.makeText(

            this,

            "No email app available. Error: ${e.message}",

            Toast.LENGTH_LONG

        ).show()

        e.printStackTrace()

    }

  }

}
```
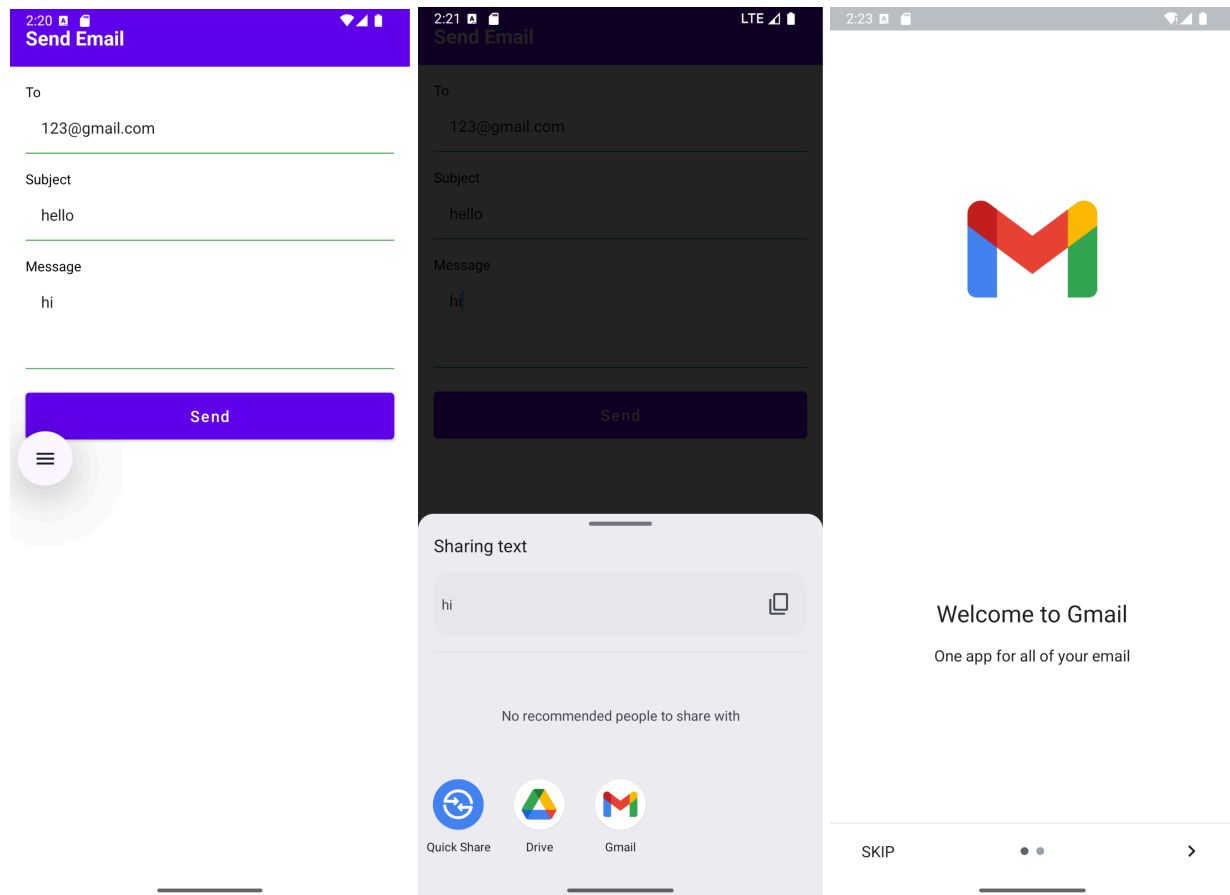
Output

Result:

The Email application successfully opens the email client with pre-filled recipient, subject, and message, allowing the user to send an email via their preferred email app.