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 -->
```

```xml
<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"
    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"
```

```xml
            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"
            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"
```

```xml
    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
```

```kotlin
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)

    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)

    sendButton.setOnClickListener {

      sendEmail()

    }

  }

  private fun sendEmail() {

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

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

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

    if (recipient.isEmpty()) {

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

      return

    }

    try {

      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)

      }
```

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

                    startActivity(emailIntent)

                    return

                }

                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)

                }

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

            } catch (e: Exception) {

                Toast.makeText(

                    this,

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

                    Toast.LENGTH_LONG

                ).show()

                e.printStackTrace()

            }

    }

}
```
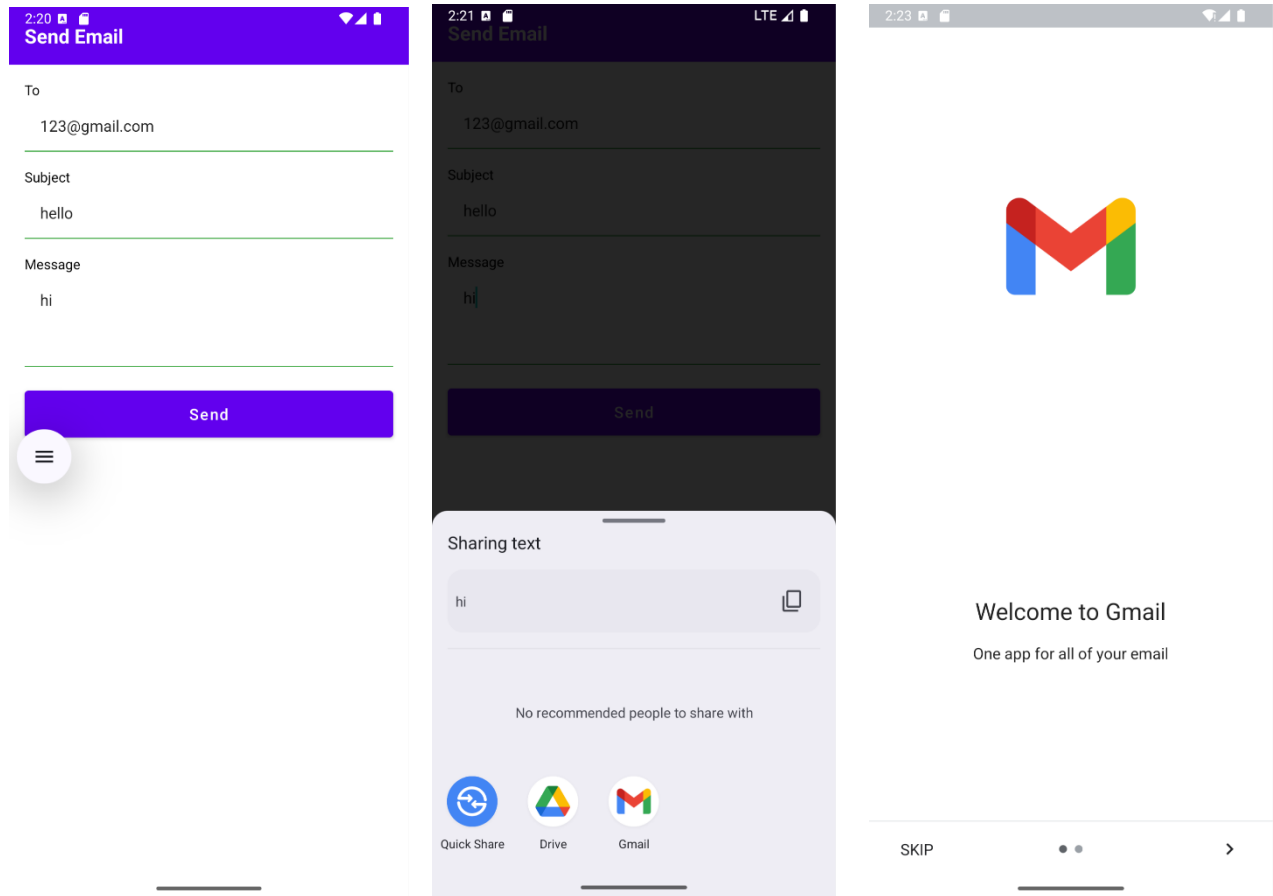
Output:

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.