Ex No: 12
Date:

MOBILE APPLICATION TO SEND EMAIL

Aim:

To design and develop a front-end Android application that allows users to compose and send emails by collecting user input for recipient address, subject, and message, and providing a user-friendly interface with validation and interaction handling.

Algorithm:

1. Design the User Interface

- Create an input field for entering the recipient's email address.
- Add an input field for the email subject.
- Include a multi-line text area for the message body.
- Add a "Send" button to initiate the email sending process.
- Optionally, include success or error message display areas (e.g., Toast or Snackbar).

2. Input Collection Phase

-Capture user inputs from the recipient, subject, and message fields.
- Validate the recipient email address format.
- Enable the "Send" button only when all fields are filled correctly.

3. Action Trigger Phase

- Detect the "Send" button click event.
- Retrieve all input values.
- Pass input data to the email logic component (not implemented in the front end).

4. User Feedback Phase

- Display confirmation message upon successful triggering of the email intent.
- Show error messages if fields are empty or email format is invalid.
- Optionally reset the input fields after sending. **Security and UX Considerations**
- Disable the send button during processing to prevent multiple taps.
- Avoid storing sensitive email data locally.
- Ensure email inputs are trimmed and sanitized.
- Prevent sending to malformed or malicious addresses.
- Maintain responsive and clean UI with accessible design.

CODE:

KOTLIN:

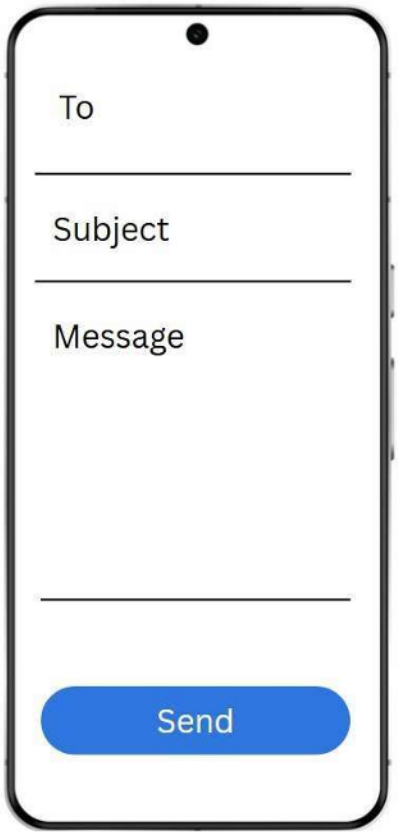
```
//Main Activity
package com.example.emailsender

import android.content.Intent
import  android.net.Uri
import android.os.Bundle
import androidx.appcompat.app.AppCompatActivity
import android.widget.Button
import com.example.emailsender.R
class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        val sendEmailBtn = findViewById<Button>(R.id.sendEmailBtn)
sendEmailBtn.setOnClickListener {
            val recipient = arrayOf("recipient@example.com") //
Replace with actual email
            val subject = "Hello from my app"
            val body = "This is a test email sent from my Android
app."

            val intent = Intent(Intent.ACTION_SENDTO).apply {
                data = Uri.parse("mailto:") // Only email apps should
handle this
                putExtra(Intent.EXTRA_EMAIL,  recipient)
                putExtra(Intent.EXTRA_SUBJECT,  subject)
                putExtra(Intent.EXTRA_TEXT, body)
            }

            if (intent.resolveActivity(packageManager) != null) {
                startActivity(intent)
            }
        }
    }
}
```

XML:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center"
    android:padding="16dp">
```

```
    <Button
        android:id="@+id/sendEmailBtn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Send Email" />
</LinearLayout>
```

OUTPUT:



RESULT:

Thus, the above experiment for designing the front-end of an Email Sending App using Android Studio has been successfully created and implemented.