

Exp:12	Develop a mobile application to send an email.
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**Aim:**

To develop a mobile app that allows users to compose and send emails directly from their device.

**Algorithm:****1. Setup**

- Create a mobile app project (Android/iOS/Cross-platform).
- Add required libraries (JavaMail, MFMailComposeViewController, or plugins).

**2. UI Design**

- Create input fields for: **To, CC, BCC, Subject, Message.**
- Add a **Send** button.

**3. Email Functionality**

- **Android:** Use Intent.ACTION\_SEND or JavaMail API.
- **iOS:** Use MFMailComposeViewController.
- **Cross-platform:** Use plugins like flutter\_email\_sender.

**4. Validation & Sending**

- Check if email fields are valid.
- Show loading while sending.
- Display success/error message.

**5. Permissions**

- Android: Add INTERNET permission.
- iOS: Enable email capabilities.

**6. Testing & Deployment**

- Test with valid/invalid emails.
- Deploy the app.

## Code:

### MainActivity.kt:

```
package com.example.emailsender
import android.content.Intent
import android.net.Uri
import android.os.Build
import android.os.Bundle
import android.widget.TextView
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity
import com.google.android.material.button.MaterialButton
import com.google.android.material.color.DynamicColors
import com.google.android.material.textfield.TextInputEditText

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.S) {
            DynamicColors.applyToActivitiesIfAvailable(application)
        }
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        val recipientInput = findViewById<TextInputEditText>(R.id.recipientEmail)
        val subjectInput = findViewById<TextInputEditText>(R.id.emailSubject)
        val messageInput = findViewById<TextInputEditText>(R.id.emailBody)
        val sendButton = findViewById<MaterialButton>(R.id.sendEmailButton)
        val statusText = findViewById<TextView>(R.id.statusText)

        sendButton.setOnClickListener {
            val recipient = recipientInput.text?.toString()?.trim()
            val subject = subjectInput.text?.toString()?.trim()
            val message = messageInput.text?.toString()?.trim()

            if (recipient.isNullOrEmpty() || subject.isNullOrEmpty() || message.isNullOrEmpty())
            {
                statusText.text = "Please fill in all fields."
                return@setOnClickListener
            }

            val intent = Intent(Intent.ACTION_SENDTO).apply {
                data = Uri.parse("mailto:$recipient")
                putExtra(Intent.EXTRA_SUBJECT, subject)
                putExtra(Intent.EXTRA_TEXT, message)
            }

            if (intent.resolveActivity(packageManager) != null) {
                startActivity(Intent.createChooser(intent, "Choose an Email client"))
                statusText.text = ""
            } else {
```

```

        statusText.text = "No email app found on device."
    }
}
}
}

```

### Activity\_main.xml:

```

<?xml version="1.0" encoding="utf-8"?>
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="24dp"
    android:background="@android:color/white">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical"
        android:gravity="center_horizontal">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Send Email"
            android:textSize="24sp"
            android:textStyle="bold"
            android:layout_marginBottom="24dp"
            android:textColor="#000" />

        <com.google.android.material.textfield.TextInputLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:hint="Recipient Email"
            app:boxStrokeColor="@color/purple_500">

            <com.google.android.material.textfield.TextInputEditText
                android:id="@+id/recipientEmail"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:inputType="textEmailAddress" />
        </com.google.android.material.textfield.TextInputLayout>

        <com.google.android.material.textfield.TextInputLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:hint="Subject"
            android:layout_marginTop="16dp">

```

```

        <com.google.android.material.textfield.TextInputEditText
            android:id="@+id/emailSubject"
            android:layout_width="match_parent"
            android:layout_height="wrap_content" />
    </com.google.android.material.textfield.TextInputLayout>

    <com.google.android.material.textfield.TextInputLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Message"
        android:layout_marginTop="16dp">

        <com.google.android.material.textfield.TextInputEditText
            android:id="@+id/emailBody"
            android:layout_width="match_parent"
            android:layout_height="150dp"
            android:gravity="top"
            android:inputType="textMultiLine" />
    </com.google.android.material.textfield.TextInputLayout>

    <com.google.android.material.button.MaterialButton
        android:id="@+id/sendEmailButton"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:text="Send Email"
        style="@style/Widget.Material3.Button"
        android:backgroundTint="@color/purple_500"
        android:textColor="@android:color/white" />

    <TextView
        android:id="@+id/statusText"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:textColor="@android:color/holo_red_dark"
        android:text=""
        android:textStyle="italic" />
</LinearLayout>
</ScrollView>

```

### Values/themes.xml:

```

<resources xmlns:tools="http://schemas.android.com/tools">
    <style name="Theme.Emailsender" parent="Theme.Material3.DayNight.NoActionBar">
        <!-- Customize your theme colors if needed -->
        <item name="colorPrimary">@color/purple_500</item>
        <item name="colorOnPrimary">@android:color/white</item>
        <item name="colorSecondary">@color/teal_200</item>
    </style>
</resources>

```

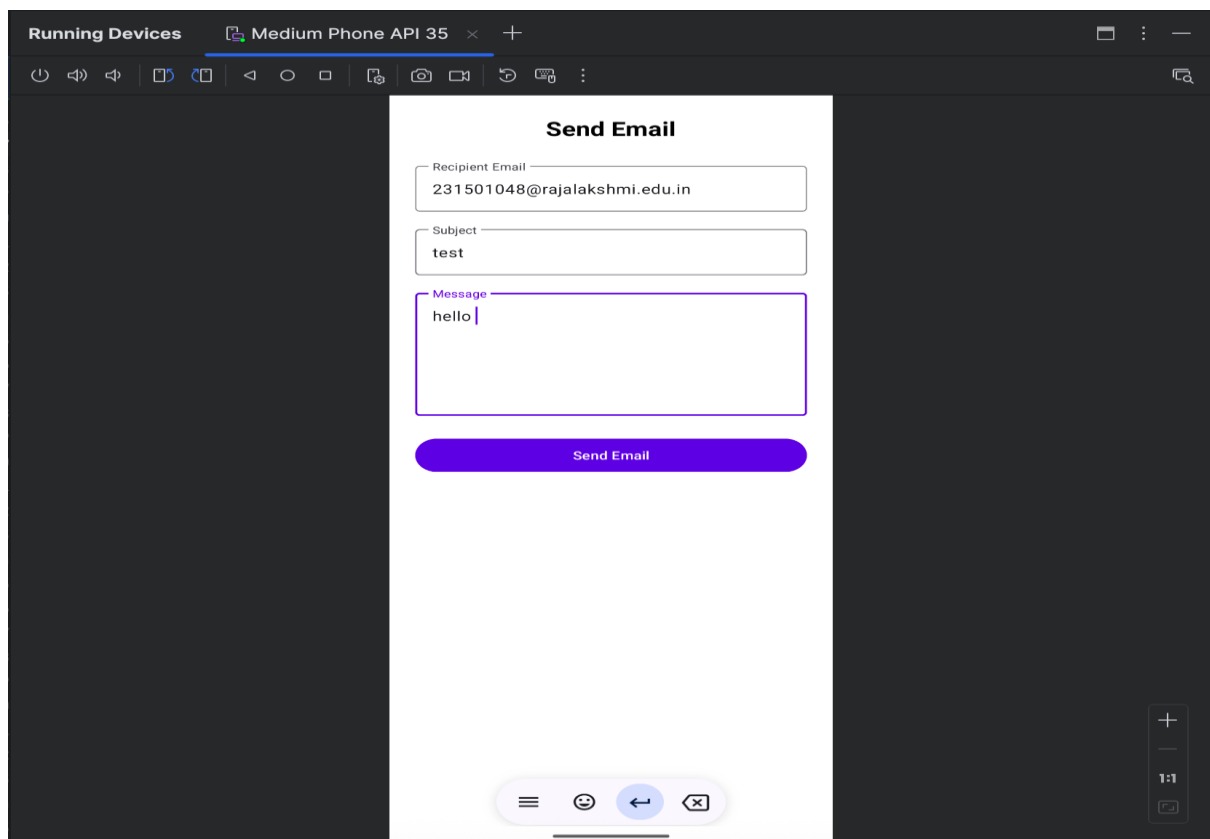
### Night/themes.xml:

```
<resources xmlns:tools="http://schemas.android.com/tools">
    <style name="Theme.Emailsender" parent="Theme.Material3.DayNight.NoActionBar">
        <!-- Dark mode colors -->
        <item name="colorPrimary">@color/purple_200</item>
        <item name="colorOnPrimary">@android:color/black</item>
        <item name="colorSecondary">@color/teal_200</item>
    </style>
</resources>
```

### Color.xml:

```
<resources>
    <color name="purple_500">#6200EE</color>
    <color name="purple_200">#BB86FC</color>
    <color name="teal_200">#03DAC5</color>
</resources>
```

### Output:



### Result:

Thus the give program is executed successfully.