DATE:05/04/2024

**AIM:-**

Implement an application to display the alert box message.

**PROCEDURE:-**

Step 1: Declare permissions.

Step 2: Create broadcast receiver.

Step 3: Handle SMS reception.

Step 4: Display Alert Dialog.

**PRGRAM CODE:-**

**AndroidManifest.xml:**

```xml
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.smsalert">
    <uses-permission android:name="android.permission.RECEIVE_SMS" />
    <uses-permission android:name="android.permission.READ_SMS" />
    <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/AppTheme">
```

```xml
        <activity android:name=".MainActivity">

            <intent-filter>

                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />

            </intent-filter>

        </activity>

        <receiver

            android:name=".SmsReceiver"

            android:enabled="true"

            android:exported="true">

            <intent-filter android:priority="999">

             <action android:name="android.provider.Telephony.SMS_RECEIVED" />

            </intent-filter>

        </receiver>

    </application>

</manifest>
```

**MainActivity.kt:**

```kotlin
package com.example.smsalert

import android.os.Bundle

import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

    override fun onCreate(savedInstanceState: Bundle?) {

        super.onCreate(savedInstanceState)
```

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

    }

}
```

**SmsReceiver.kt**:

```kotlin
package com.example.smsalert

import android.content.BroadcastReceiver

import android.content.Context

import android.content.Intent

import android.os.Build

import android.os.Bundle

import android.provider.Telephony

import android.telephony.SmsMessage

import androidx.appcompat.app.AlertDialog

class SmsReceiver : BroadcastReceiver() {

    override fun onReceive(context: Context, intent: Intent) {

        if (intent.action == Telephony.Sms.Intents.SMS_RECEIVED_ACTION) {

            val bundle = intent.extras

            if (bundle != null) {

                val pdus = bundle.get("pdus") as Array<Any>

                for (pdu in pdus) {

                    val smsMessage: SmsMessage = if (Build.VERSION.SDK_INT >=
Build.VERSION_CODES.M) {
```

```kotlin
                SmsMessage.createFromPdu(pdu as ByteArray,
bundle.getString("format"))
            } else {
                SmsMessage.createFromPdu(pdu as ByteArray)
            }
            val sender = smsMessage.originatingAddress
            val message = smsMessage.messageBody
            showSmsAlert(context, sender, message)
        }
      }
   }
   private fun showSmsAlert(context: Context, sender: String?, message: String?) {
      val alertDialogBuilder = AlertDialog.Builder(context)
      alertDialogBuilder.setTitle("New SMS Received")
      alertDialogBuilder.setMessage("From: $sender\nMessage: $message")
      alertDialogBuilder.setPositiveButton("OK") { dialog, which ->
         // Action to perform when OK button is clicked
         dialog.dismiss()
      }
      val alertDialog = alertDialogBuilder.create()
      alertDialog.show()
   }}
```
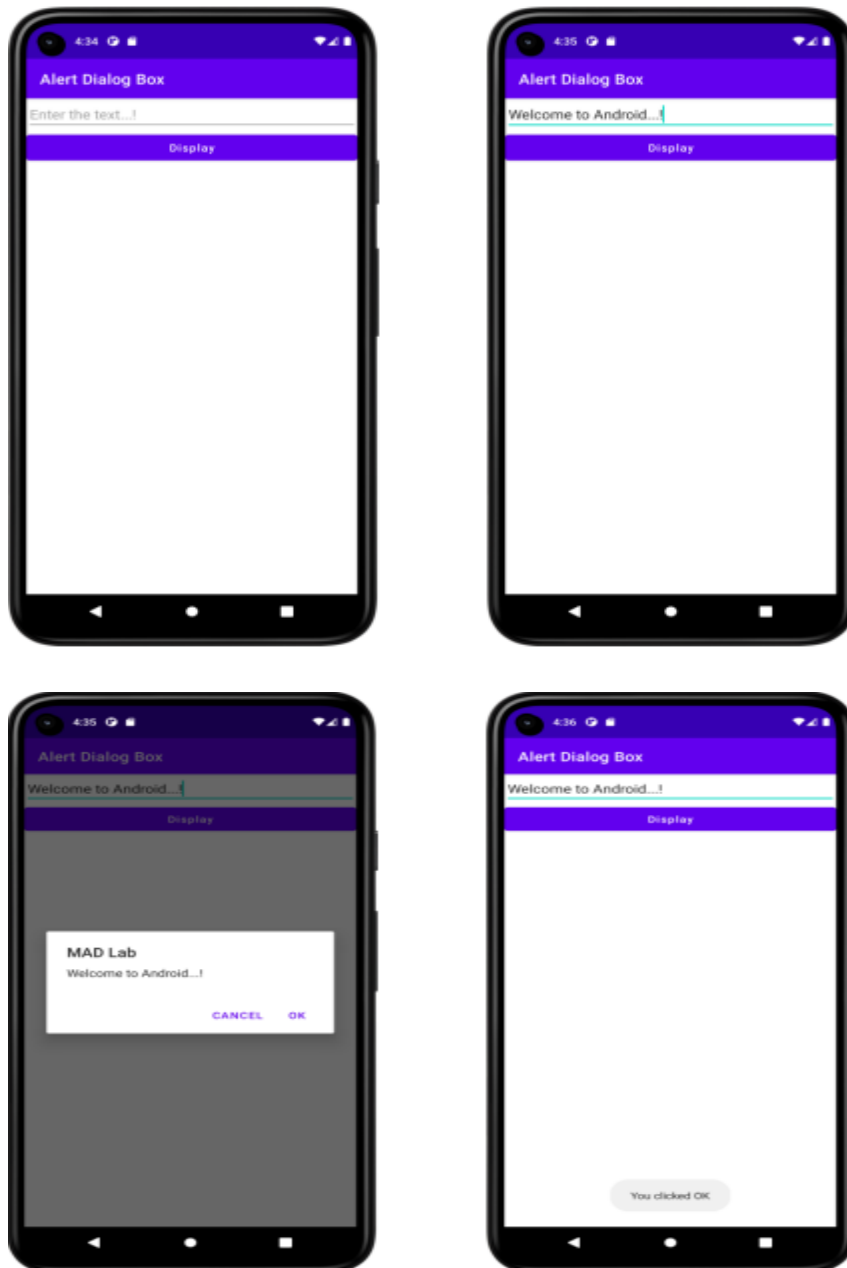
**OUTPUT:-**



**RESULT:-**

Thus to implement an application to display the alert box message is implemented and executed successfully.