

EX:NO:10

TELEPHONY SERVICES

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DATE:26/04/2024

AIM:-

Develop an android application to display the information of the telephony services.

PROCEDURE:-

Step 1: Create a new Android Project.

Step 2: Design the user Interface.

Step 3: Implement button click listener.

Step 4: Fetch Telephony Information.

Step 5: Update UI with telephony information.

Step 6: Test the application.

Step 7: Handle edge cases.

Step 8: Optimize and refine.

PRGRAM CODE:-

AndroidManifest.xml:

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.telephonyinfo">

    <uses-permission android:name="android.permission.READ_PHONE_STATE"
/>

    <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">
        <activity android:name=".MainActivity">
            <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 version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
    tools:context=".MainActivity">
    <Button
        android:id="@+id/buttonDisplayTelephonyInfo"
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"

        android:text="Display Telephony Info"

        android:layout_centerInParent="true"

        android:onClick="displayTelephonyInfo" />
</RelativeLayout>
```

MainActivity.kt:

```
package com.example.telephonyinfo

import android.Manifest
import android.content.Context
import android.content.pm.PackageManager
import android.os.Build
import android.os.Bundle
import android.telephony.TelephonyManager
import android.widget.Toast
import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

    override fun onCreate(savedInstanceState: Bundle?) {

        super.onCreate(savedInstanceState)

        setContentView(R.layout.activity_main)

    }

    fun displayTelephonyInfo(view: android.view.View) {

        if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.M &&
```

```

        checkSelfPermission(Manifest.permission.READ_PHONE_STATE) !=
PackageManager.PERMISSION_GRANTED

    ) {

requestPermissions(arrayOf(Manifest.permission.READ_PHONE_STATE), 1)

    } else {

        Thread {

            Thread.sleep(30000) // Delay of 30 seconds

            runOnUiThread {

                val telephonyManager =

                    getSystemService(Context.TELEPHONY_SERVICE) as
TelephonyManager

                val networkOperator = telephonyManager.networkOperatorName

                val phoneType = when (telephonyManager.phoneType) {

                    TelephonyManager.PHONE_TYPE_GSM -> "GSM"

                    TelephonyManager.PHONE_TYPE_CDMA -> "CDMA"

                    else -> "Unknown" }

                val info =

                    "Network Operator: $networkOperator\nPhone Type: $phoneType"

                Toast.makeText(this, info, Toast.LENGTH_LONG).show()

            }

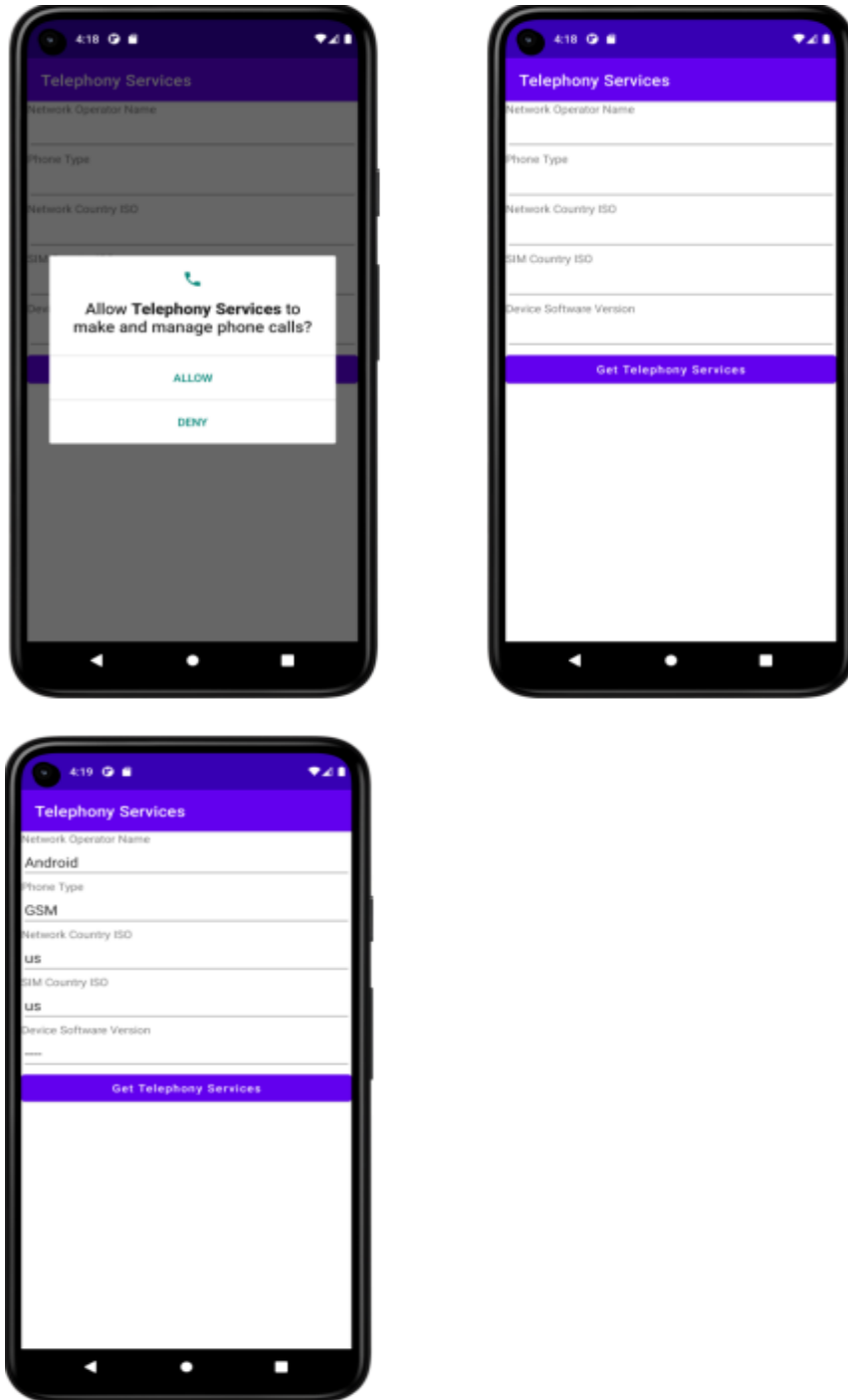
        }.start()

    }

}

```

OUTPUT:-



RESULT:-

Thus to develop an android application to display the information of the telephony services is implemented and executed successfully.