TELEPHONY SERVICES

AIM:

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

PROCEDURE:

- Open Android Studio and import the package
- In activity_main.xml drag and drop the buttons
- The button needs to perform actions to change the colour, font size and background colour
- Click android virtual device that should control the toolbar
- Design the graphical layout with the textview and buttons
- Run the application
- The version of android and name is displayed
- The theme of the file is also mentioned in a file
- Run the file using the version which is displayed to the users.

PROGRAM 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"
```

```xml
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:

```kotlin
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"
```
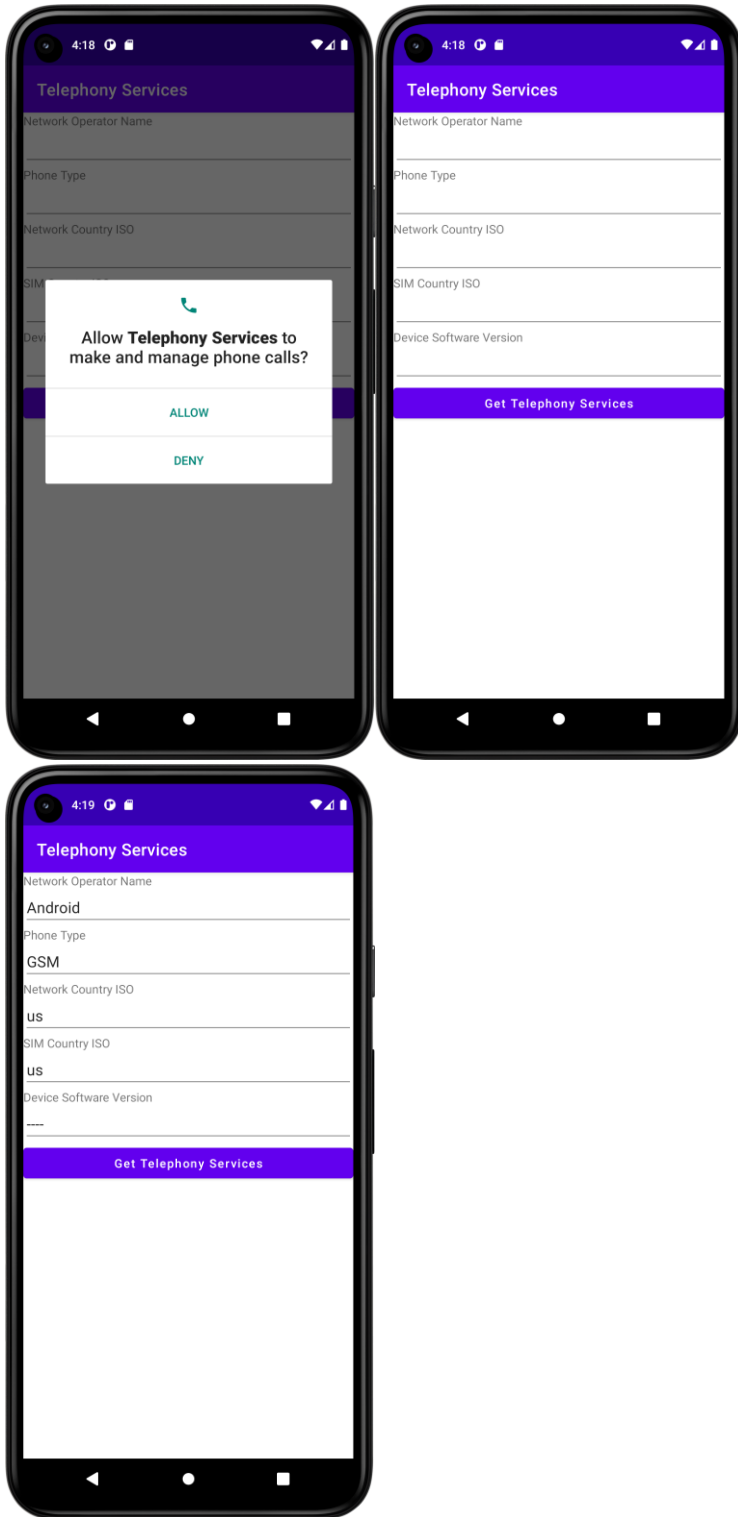
```
Toast.makeText(this, info, Toast.LENGTH_LONG).show()
}
}.start()
}
}
}
```

OUTPUT:

RESULT: