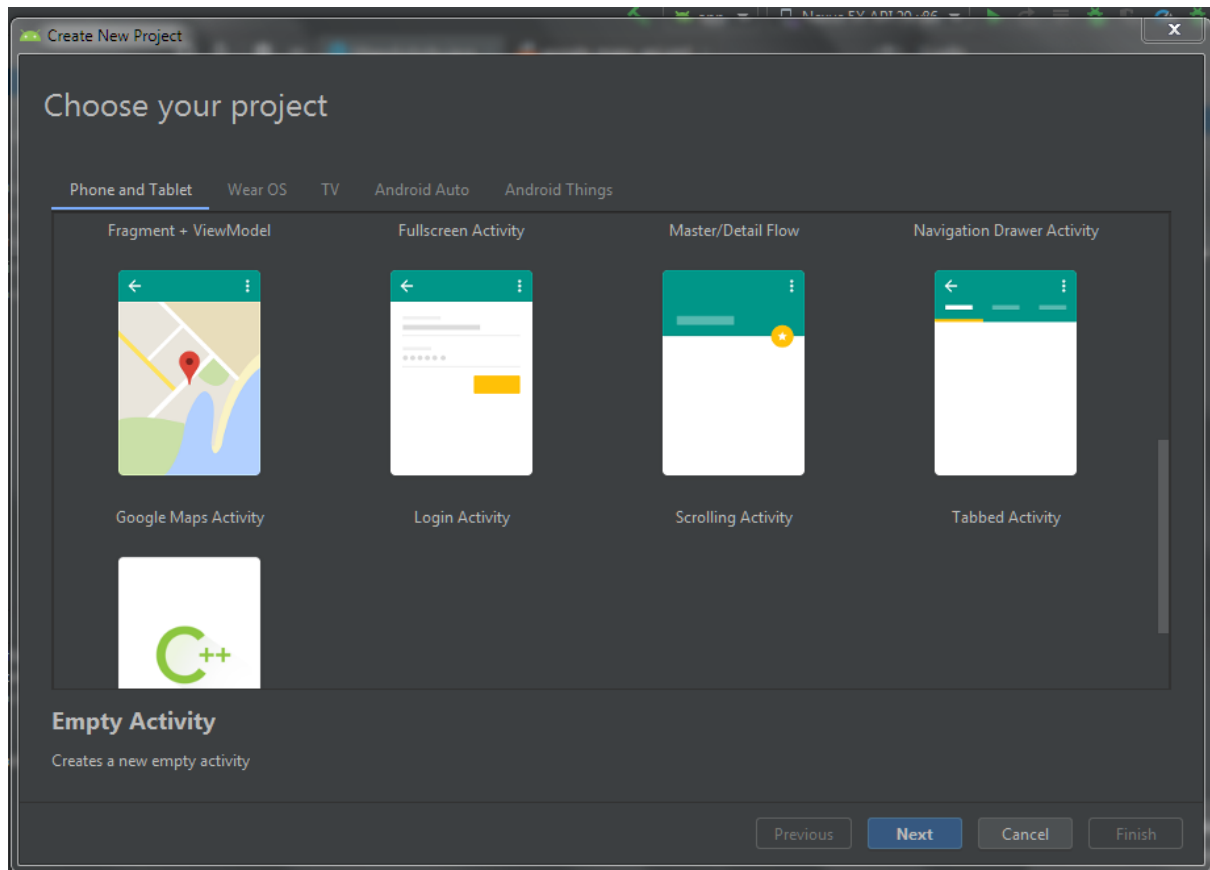


Tutorial 9 Android MAP

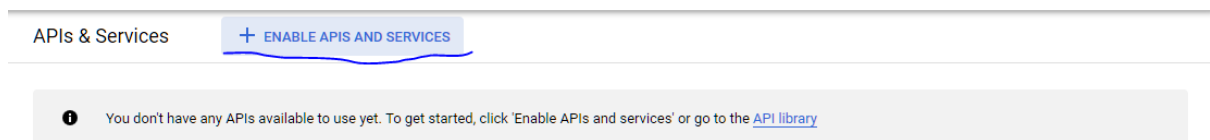
Luthfie Fauzan Anshary

3SC6

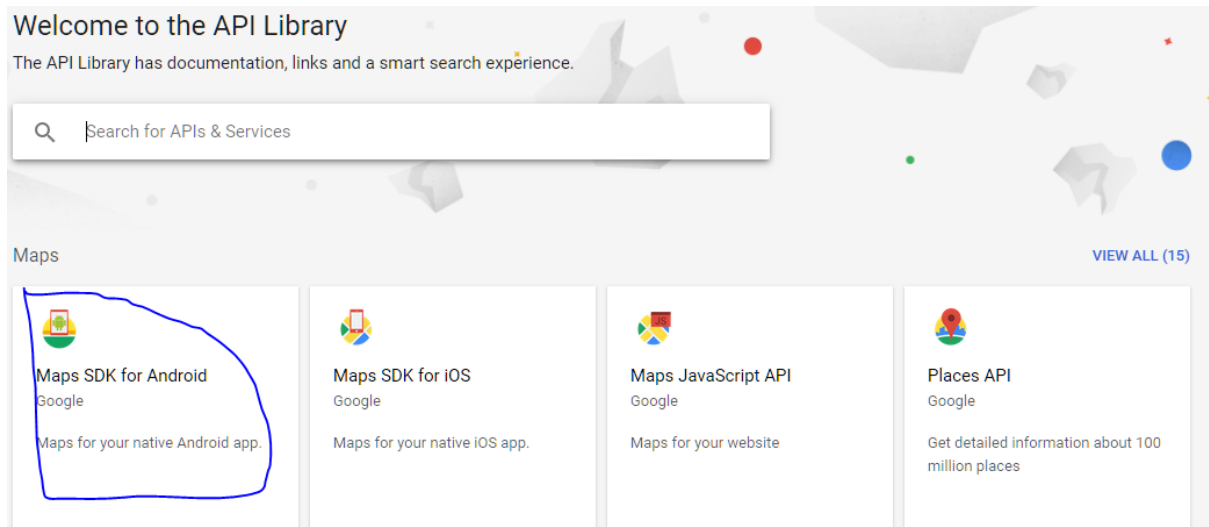
1. Pertama buat project baru lalu pilih **google Maps Activity**



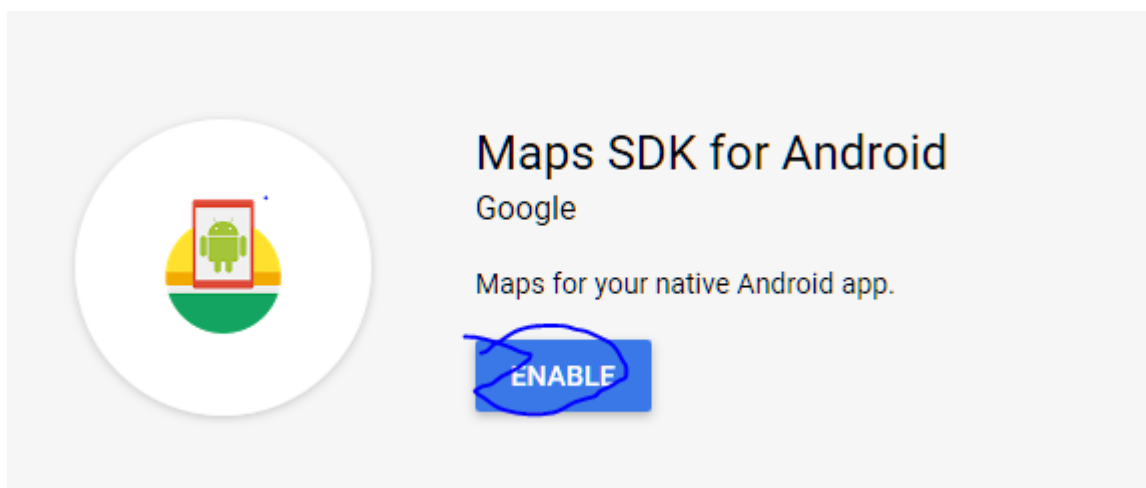
2. Setelah di buat project nya pertama kita harus ke <https://console.developers.google.com>. Untuk bisa mendapatkan Google Maps Keys nya
3. Setelah login klik **ENABLE APIS AND SERVICES**



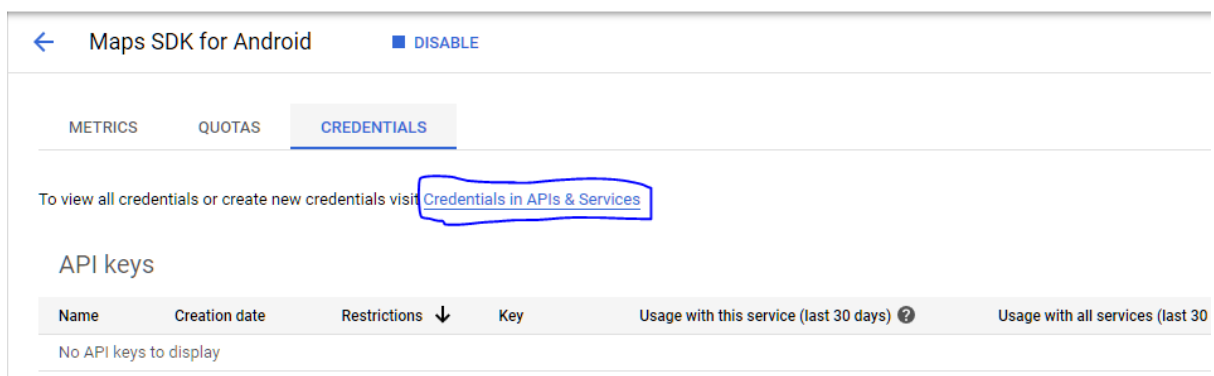
4. Setelah itu pilih **maps sdk for android**



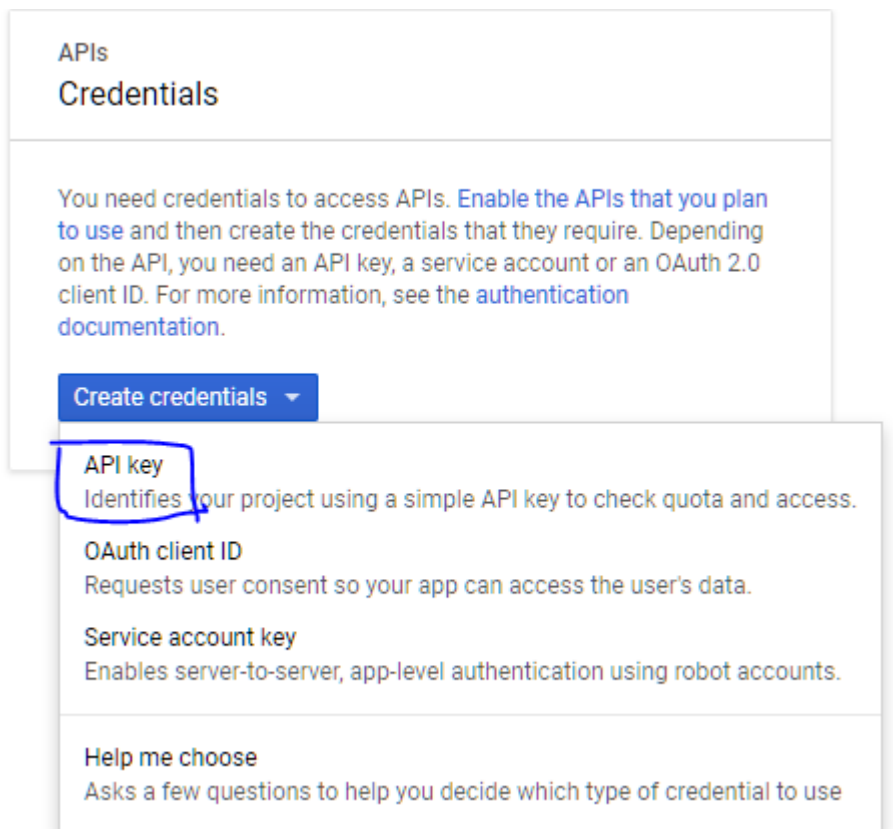
5. Setelah itu klik tombol enable nya



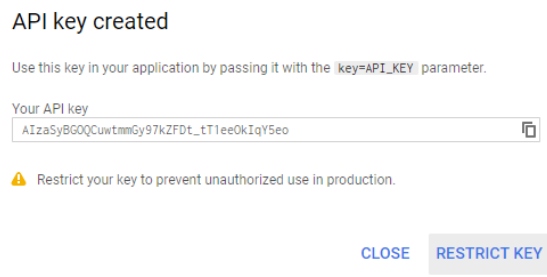
6. Setelah di tampilan baru pilih tab **Credentials** lalu klik link **Credentials in APIs & services**



7. Setelah itu klik tombol **create credentials** lalu pilih **API key**



8. Setelah sudah berhasil membuat key klik **restrict key**




9. Setelah itu cari **Application restrictions** pilih **Android apps**.

Name *

API key 1

Key restrictions



This key is unrestricted. Restrictions help prevent unauthorised use and quota theft. [Learn more](#) 

Application restrictions

An application restriction controls which websites, IP addresses or applications can use your API key. You can set one application restriction per key.

- ☐ None
- ☐ HTTP referrers (websites)
- ☐ IP addresses (web servers, cron jobs, etc.)
- ☒ Android apps
- ☐ iOS apps

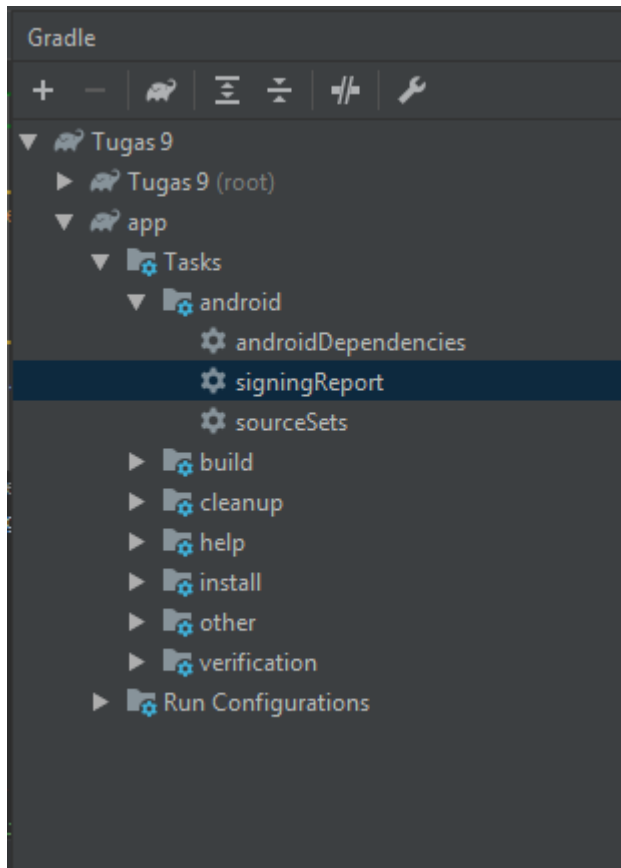
10. Selanjutnya pada kolom **Restrict usage to your Android apps** pilih **ADD AN ITEM**

Restrict usage to your Android apps

Add your package name and SHA-1 signing-certificate fingerprint to restrict usage to your Android apps

ADD AN ITEM

11. Untuk mendapatkan SHA-1. Ke android studio lalu pilih **View -> Tool Windows -> Gradle**. Pilih **app/android/signingReport**



12. Lalu Copy yang bernama Sha 1 lalu paste ke yang tadi lalu masukkan package name nya sesuai nama project lalu klik done

```
Variant: debug
Config: debug
Store: C:\Users\Lee\.android\debug.keystore
Alias: AndroidDebugKey
MD5: C1:3C:A2:D6:1D:7B:47:6E:C2:4E:88:37:87:C5:73:83
SHA1: 77:05:C2:1A:8B:AF:C1:88:AD:B7:AE:8A:34:EA:32:F4:49:4E:E6:B6
SHA-256: 45:40:73:18:92:E1:63:08:78:31:74:0D:FC:33:0C:75:A3:A9:08:7B:6D:9A:96:22:59:10:42:07:2F:A9:C8:75
Valid until: Wednesday, November 3, 2049
```

Restrict usage to your Android apps

Add your package name and SHA-1 signing-certificate fingerprint to restrict usage to your Android apps

New item

Package name *

com.example

Package name is required

SHA-1 certificate fingerprint *

CANCEL

DONE

13. Setelah itu Pada kolom **API restrictions** pilih **Restrict key** lalu centang **Maps SDK for Android**.

API restrictions

API restrictions specify the enabled APIs that this key can call

☐ Don't restrict key
This key can call any API

☒ Restrict key

☒ Maps SDK for Android

Note: It may take up to 5 minutes for settings to take effect

SAVE CANCEL

14. Setelah di save kembali ke android studionya dan buka **MapsActivity.java** lalu isikan seperti ini

```
import androidx.fragment.app.FragmentActivity;
import android.os.Bundle;

import com.google.android.gms.maps.CameraUpdateFactory;
import com.google.android.gms.maps.GoogleMap;
import com.google.android.gms.maps.OnMapReadyCallback;
import com.google.android.gms.maps.SupportMapFragment;
import com.google.android.gms.maps.model.LatLng;
import com.google.android.gms.maps.model.MarkerOptions;

public class MapsActivity extends FragmentActivity implements
OnMapReadyCallback {
    private GoogleMap mMap;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_maps);
        // Membuat objek SupportMapFragment untuk mendapatkan notifikasi
        saat map siap digunakan
        SupportMapFragment mapFragment = (SupportMapFragment)
        getSupportFragmentManager()
            .findFragmentById(R.id.map);
        mapFragment.getMapAsync(this);
    }
    /*
        Ketika map tersedia, maka map akan di manipulasi seperti mengatur
        posisi map langsung
        ke posisi Longitude Latitude yang kita tentukan. Dalam kasus ini
        JL. Petogogan I No. 41
    */
    @Override
    public void onMapReady(GoogleMap googleMap) {
        mMap = googleMap;

        // Menambahkan marker ke lokasi yang kita tentukan
    }
}
```

```

        LatLng petogogan = new LatLng(-6.252828, 106.794783);
        mMap.addMarker(new MarkerOptions().position(petogogan).title("Jl.
Petogogan I No. 41"));
        mMap.moveCamera(CameraUpdateFactory.newLatLng(petogogan));
    }
}

```

15. Lalu buka layout **activity_maps.xml** lalu isikan seperti ini

```

<?xml version="1.0" encoding="utf-8"?>
<fragment xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:map="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/map"
    android:name="com.google.android.gms.maps.SupportMapFragment"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MapsActivity" />

```

16. Lalu buka **google_maps_api.xml** lalu isikan seperti ini, dan jangan lupa menggantikan keynya(**AIzaSyCG8bf2ZbmX4jULt7ifCxq1iA_j7MNwfU8**) dengan key yang dibuat tadi

```

<resources>
    <!-- Ganti dengan API Key masing-masing -->
    <string
        name="google_maps_key"
        templateMergeStrategy="preserve"
        translatable="false">AIzaSyCG8bf2ZbmX4jULt7ifCxq1iA_j7MNwfU8
    </string>
</resources>

```

17. Setelah itu buka manifest nya lalu ganti jadi seperti ini :

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.tugas9">
    <!-- Permission -->
    <uses-permission
        android:name="android.permission.ACCESS_COARSE_LOCATION" />
    <uses-permission android:name="android.permission.ACCESS_FINE_LOCATION"
    />
    <uses-permission android:name="android.permission.ACCESS_NETWORK_STATE"
    />
    <uses-permission android:name="android.permission.INTERNET" />
    <uses-permission
        android:name="com.google.android.providers.gsf.permission.READ_GSERVICES"
    />
    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/AppTheme">
        <meta-data
            android:name="com.google.android.geo.API_KEY"
            android:value="@string/google_maps_key" />
        <activity
            android:name=".MapsActivity"
            android:label="@string/title_activity_maps">

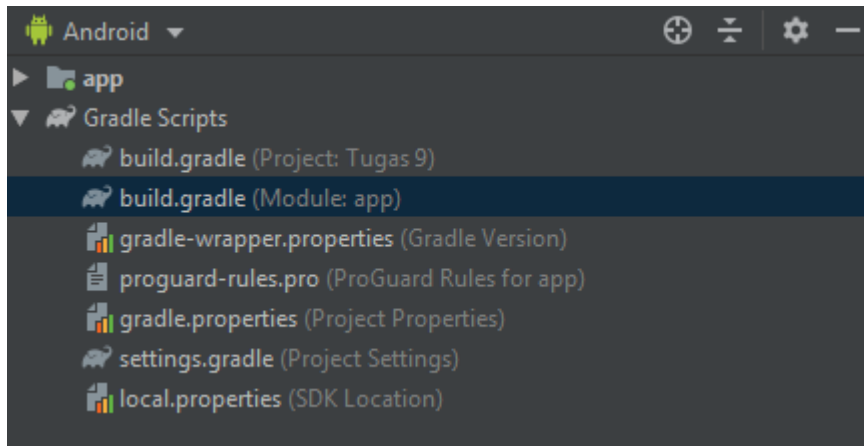
```

```

        <intent-filter>
            <action android:name="android.intent.action.MAIN" />
            <category android:name="android.intent.category.LAUNCHER"
/>
        </intent-filter>
    </activity>
</application>
</manifest>

```

18. Buka **build.gradle(app)** lalu ubah isinya jadi seperti ini



```

apply plugin: 'com.android.application'

android {
    compileSdkVersion 29
    buildToolsVersion "29.0.2"
    defaultConfig {
        applicationId "com.example.tugas9"
        minSdkVersion 15
        targetSdkVersion 29
        versionCode 1
        versionName "1.0"
        testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"
    }
    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android-
optimize.txt'), 'proguard-rules.pro'
        }
    }
}

dependencies {
    implementation fileTree(dir: 'libs', include: ['*.jar'])
    //noinspection GradleCompatible
    implementation 'com.android.support:appcompat-v7:28.0.0'
    implementation 'com.google.android.gms:play-services-maps:16.1.0'
    testImplementation 'junit:junit:4.12'
    androidTestImplementation 'com.android.support.test:runner:1.0.2'
    androidTestImplementation 'com.android.support.test.espresso:espresso-
core:3.0.2'
}

```


19. Lalu jalankan project nya

