**"SOURCE CODE QR CODE GENERATOR DAN SCANNER"**



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# 1. Source Code QR Code Generator
## A. build.gradle

```
plugins {

    id 'com.android.application'

}


android {

    compileSdkVersion 30

    buildToolsVersion "30.0.3"


    defaultConfig {

        applicationId "com.example.qrcodegenerator"

        minSdkVersion 16

        targetSdkVersion 30

        versionCode 1

        versionName "1.0"


        testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"

    }


    buildTypes {

        release {

            minifyEnabled false

            proguardFiles getDefaultProguardFile('proguard-android-optimize.txt'),
'proguard-rules.pro'

        }

    }

    compileOptions {

        sourceCompatibility JavaVersion.VERSION_1_8

        targetCompatibility JavaVersion.VERSION_1_8

    }
```

```
}

dependencies {

    implementation 'com.journeyapps:zxing-android-embedded:3.0.2@aar'

    implementation 'com.google.zxing:core:3.2.1'

    implementation 'androidx.appcompat:appcompat:1.2.0'

    implementation 'com.google.android.material:material:1.3.0'

    implementation 'androidx.constraintlayout:constraintlayout:2.0.4'

    testImplementation 'junit:junit:4.+'

    androidTestImplementation 'androidx.test.ext:junit:1.1.2'

    androidTestImplementation 'androidx.test.espresso:espresso-core:3.3.0'
}
```

**B. MainActivity.java**
```java
package com.example.qrcodegenerator;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.graphics.Bitmap;
import android.graphics.BitmapFactory;
import android.net.Uri;
import android.os.Bundle;
import android.provider.MediaStore;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ImageView;

import com.google.zxing.BarcodeFormat;
import com.google.zxing.MultiFormatWriter;
import com.google.zxing.WriterException;
import com.google.zxing.common.BitMatrix;
import com.journeyapps.barcodescanner.BarcodeEncoder;

import java.io.ByteArrayOutputStream;

public class MainActivity extends AppCompatActivity {
```

```java
    Button button;
    EditText editText;
    ImageView imageView;
    String qrGenerator;

    MultiFormatWriter multi = new MultiFormatWriter();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        button = findViewById(R.id.btn);
        editText = findViewById(R.id.text);
        imageView= findViewById(R.id.image);

        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                try {
                    qrGenerator = editText.getText().toString();
                    BitMatrix bitMatrix = multi.encode(qrGenerator,
BarcodeFormat.QR_CODE, 300, 300);

                    BarcodeEncoder barcodeEncoder = new BarcodeEncoder();
                    Bitmap bitmap = barcodeEncoder.createBitmap(bitMatrix);
                    imageView.setImageBitmap(bitmap);

                    Intent share = new Intent(Intent.ACTION_SEND);
                    share.setType("image/jpeg");
                    ByteArrayOutputStream bytes = new ByteArrayOutputStream();
                    bitmap.compress(Bitmap.CompressFormat.JPEG, 100, bytes);
                    String path =
MediaStore.Images.Media.insertImage(getContentResolver(), bitmap, "Title",
null);
                    Uri imageUri =  Uri.parse(path);
                    share.putExtra(Intent.EXTRA_STREAM, imageUri);
                    startActivity(Intent.createChooser(share, "Select"));
                } catch (WriterException e){
                    e.printStackTrace();
                }
            }
        });

    }
}
```

### C. activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/image"
        android:layout_width="match_parent"
        android:layout_height="400dp"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="47dp" />

    <EditText
        android:id="@+id/text"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Masukkan Text"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="546dp" />

    <Button
        android:id="@+id/btn"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Generate QR"
        tools:layout_editor_absoluteX="16dp"
        tools:layout_editor_absoluteY="656dp" />
</LinearLayout>
```

## 2. Source Code QR Code Scanner

### A. build.gradle

```
plugins {
    id 'com.android.application'
}

android {
    compileSdkVersion 30
    buildToolsVersion "30.0.3"

    defaultConfig {
        applicationId "com.example.qrcodescanner"
```

```
        minSdkVersion 24
        targetSdkVersion 30
        versionCode 1
        versionName "1.0"

        testInstrumentationRunner
"androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android-
optimize.txt'), 'proguard-rules.pro'
        }
    }
    compileOptions {
        sourceCompatibility JavaVersion.VERSION_1_8
        targetCompatibility JavaVersion.VERSION_1_8
    }
}

dependencies {

    implementation 'com.google.zxing:core:3.2.1'
    implementation 'com.journeyapps:zxing-android-embedded:3.2.0@aar'
    implementation 'androidx.appcompat:appcompat:1.2.0'
    implementation 'com.google.android.material:material:1.3.0'
    implementation 'androidx.constraintlayout:constraintlayout:2.0.4'
    testImplementation 'junit:junit:4.+'
    androidTestImplementation 'androidx.test.ext:junit:1.1.2'
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.3.0'
}
```

**B. MainActivity.java**
```
package com.example.qrcodescanner;

import androidx.annotation.Nullable;
import androidx.appcompat.app.AppCompatActivity;

import android.app.Activity;
import android.app.AlertDialog;
import android.content.DialogInterface;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
```

```java
import android.widget.Button;
import android.widget.Toast;

import com.google.zxing.integration.android.IntentIntegrator;
import com.google.zxing.integration.android.IntentResult;

public class MainActivity extends AppCompatActivity {

    private Button scan_btn;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        scan_btn = (Button)findViewById(R.id.scan_btn);
        final Activity activity = this;
        scan_btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                IntentIntegrator integrator = new IntentIntegrator(activity);

integrator.setDesiredBarcodeFormats(IntentIntegrator.QR_CODE_TYPES
);
                integrator.setPrompt("SCAN");
                integrator.setCameraId(0);
                integrator.setBeepEnabled(true);
                integrator.setBarcodeImageEnabled(true);
                integrator.initiateScan();
            }
        });
    }

    @Override
    protected void onActivityResult(int requestCode, int resultCode,
@Nullable Intent data) {
        IntentResult result =
IntentIntegrator.parseActivityResult(requestCode, resultCode, data);
        if (result != null){
            if (result.getContents() == null){
                AlertDialog alertDialog = new
AlertDialog.Builder(MainActivity.this).create();
                alertDialog.setTitle("Hasil Scan");
                alertDialog.setMessage("Anda membatalkan scanning");
                alertDialog.setButton(AlertDialog.BUTTON_POSITIVE, "YA",
                    new DialogInterface.OnClickListener() {
```

```java
                @Override
                public void onClick(DialogInterface dialog, int which) {
                    dialog.dismiss();
                }
            });
        alertDialog.show();
    }else {
        AlertDialog alertDialog = new
AlertDialog.Builder(MainActivity.this).create();
        alertDialog.setTitle("Hasil Scan");
        //alertDialog.setMessage(result.toString());
        alertDialog.setMessage(result.getContents());
        alertDialog.setButton(AlertDialog.BUTTON_POSITIVE, "YA",
            new DialogInterface.OnClickListener() {
                @Override
                public void onClick(DialogInterface dialog, int which) {
                    dialog.dismiss();
                }
            });
        alertDialog.show();
    }
    }else {
        super.onActivityResult(requestCode, resultCode, data);
    }

    }
}
```

## C. activity_main.xml

```xml
<RelativeLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="15dp"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="QR Code Scanner"
        android:textColor="#000"
        android:textSize="25dp"
        android:layout_centerHorizontal="true"/>
```

```xml
    <Button
        android:id="@+id/scan_btn"
        android:layout_width="100dp"
        android:layout_height="100dp"
        android:layout_centerHorizontal="true"
        android:layout_centerVertical="true"
        android:text="SCAN"/>
</RelativeLayout>
```