**API - CATFACT**

**I. AndroidManifest.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools"  
 package="com.example.catfact">  
   
 <uses-permission android:name="android.permission.INTERNET"/>  
  
 <application  
 android:allowBackup="true"  
 android:dataExtractionRules="@xml/data\_extraction\_rules"  
 android:fullBackupContent="@xml/backup\_rules"  
 android:icon="@mipmap/ic\_launcher"  
 android:label="@string/app\_name"  
 android:roundIcon="@mipmap/ic\_launcher\_round"  
 android:supportsRtl="true"  
 android:theme="@style/Theme.CatFact"  
 android:usesCleartextTraffic="true"  
 tools:targetApi="31">

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

**II. Build.gradle (Module :app)**

buildFeatures **{** viewBinding true  
**}**

dependencies **{**  
 implementation 'com.squareup.retrofit2:retrofit:2.9.0'  
 implementation 'com.squareup.retrofit2:converter-gson:2.9.0'  
**}**

**III. Java**

1. **MainActivity**

package com.example.catfact  
  
import androidx.appcompat.app.AppCompatActivity  
import android.os.Bundle  
import android.view.View  
import com.example.catfact.databinding.ActivityMainBinding  
import kotlinx.coroutines.Dispatchers  
import kotlinx.coroutines.GlobalScope  
import kotlinx.coroutines.launch  
import kotlinx.coroutines.withContext  
import retrofit2.Retrofit  
import retrofit2.awaitResponse  
import retrofit2.converter.gson.GsonConverterFactory  
  
class MainActivity : AppCompatActivity() {  
 lateinit var binding: ActivityMainBinding  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 binding = ActivityMainBinding.inflate(*layoutInflater*)  
 setContentView(binding.*root*)  
  
 binding.LayoutGenerateFact.setOnClickListener **{** getCurrentPost()  
 **}** }  
  
 private fun getCurrentPost() {  
 binding.tvFact.*visibility* = View.*GONE* binding.tvLength.*visibility* = View.*GONE* binding.pbLoading.*visibility* = View.*VISIBLE* val api = Retrofit.Builder()  
 .baseUrl("https://catfact.ninja/")  
 .addConverterFactory(GsonConverterFactory.create())  
 .build().create(ApiRequests::class.*java*)  
  
 GlobalScope.*launch*(Dispatchers.IO) **{** val response = api.getFact().awaitResponse()  
 if (response.*isSuccessful*) {  
 val data = response.body()!!  
 withContext(Dispatchers.Main) **{** binding.tvFact.*visibility* = View.*VISIBLE* binding.tvLength.*visibility* = View.*VISIBLE* binding.pbLoading.*visibility* = View.*GONE* binding.tvFact.*text* = data.fact  
 binding.tvLength.*text* = data.length.toString()  
 **}** }  
 **}** }  
}

1. **CatJSON (data class)**

package com.example.catfact  
  
data class CatJSON(  
 val fact: String,  
 val length: Int  
)

1. **ApiRequests (interface)**

package com.example.catfact  
  
import retrofit2.Call  
import retrofit2.http.GET  
  
interface ApiRequests {  
 @GET("fact")  
 fun getFact(): Call<CatJSON>  
}

**III. Res -> Layout**

1. **activity\_main.xml**

*<?*xml version="1.0" encoding="utf-8"*?>*<androidx.constraintlayout.widget.ConstraintLayout 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"  
 tools:context=".MainActivity">  
  
 <ProgressBar  
 android:id="@+id/pbLoading"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 android:visibility="gone"  
 tools:visibility="visible"/>  
  
 <TextView  
 android:id="@+id/tvFact"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Hello World!"  
 android:textSize="24sp"  
 android:textAlignment="center"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"/>  
  
 <TextView  
 android:id="@+id/tvLength"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"  
 android:text="Hello World!"  
 android:textSize="24sp"  
 android:textStyle="italic"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@id/tvFact"/>  
  
 <androidx.constraintlayout.widget.ConstraintLayout  
 android:id="@+id/LayoutGenerateFact"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.0"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="1.0" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

