**Practical No. 10**

**Title: Android program to work with REST API**

**Aim: Create an application to demonstrate rest api**

# Exercise - Create android application to demonstrate REST API

**Implementation: Program:**

# MainActivity.java

package com.example.apiproject;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle; import android.widget.Toast;

import java.util.List;

import retrofit2.Call; import retrofit2.Callback; import retrofit2.Response;

public class MainActivity extends AppCompatActivity {

Apiinterface apiinterface;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

apiinterface= Retrofitinstance.getR().create(Apiinterface.class);

apiinterface.getposts().enqueue(new Callback<List<postpojo>>() {

@Override

public void onResponse(Call<List<postpojo>> call, Response<List<postpojo>> response) { if(response.body().size() > 0) {

Toast.makeText(MainActivity.this, "List is not empty",

Toast.LENGTH\_SHORT).show();

}

else{

Toast.makeText(MainActivity.this, "List is empty",

Toast.LENGTH\_SHORT).show();

}

}

@Override

public void onFailure(Call<List<postpojo>> call, Throwable t)

{

Toast.makeText(MainActivity.this,"error",

Toast.LENGTH\_SHORT).show();

}

});

}

}

# Retrofitinstance.java

package com.example.apiproject;

import retrofit2.Retrofit;

import retrofit2.converter.gson.GsonConverterFactory;

public class Retrofitinstance {

private static Retrofit r; private static final String

Baseurl="https://jsonplaceholder.typicode.com/";

public static Retrofit getR() {

if(r == null)

{ r=new Retrofit.Builder().baseUrl(Baseurl). addConverterFactory(GsonConverterFactory.create()).

build();

} return r;

}

}

# Apiinterface.java

package com.example.apiproject;

import java.util.List;

import retrofit2.Call; import retrofit2.http.GET;

public interface Apiinterface {

// https://jsonplaceholder.typicode.com/

@GET("posts")

Call<List<postpojo>> getposts();

# } postpojo.java

package com.example.apiproject;

public class postpojo {

private float userId; private float id; private String title; private String body;

// Getter Methods

public float getUserId() { return userId;

} public float getId() { return id;

} public String getTitle() { return title;

} public String getBody() { return body;

}

// Setter Methods

public void setUserId(float userId) { this.userId = userId;

}

public void setId(float id) { this.id = id;

}

public void setTitle(String title) { this.title = title;

}

public void setBody(String body) { this.body = body;

}

}

# 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">

<TextView

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Hello World!"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Output:**

