

API

What is Api?

- API stands for Application Programming Interface, which is a set of rules that allows software programs to communicate and exchange data
- APIs are used by many apps and services that connect to the internet, including social media apps, rideshare apps, and mobile payment apps.

What is open weather Api?

- OpenWeatherMap is an online service that provides weather data through an API (Application Programming Interface). OpenWeatherMap's API offers a variety of weather data, including:
- Current weather,Forecasts,Historical weather,Statistical weather data,Weather overview,Government weather alerts
- **Current weather:** Provides access to current weather conditions
- **Forecasts:** Provides forecasts for the current hour, 48 hours, and 8 days
- **Historical weather:** Provides access to historical weather data for over 45 years
- **Statistical weather data:** Provides statistical data for weather parameters like temperature, pressure, humidity, wind, precipitation, and clouds
- **Weather overview:** Provides a human-readable summary of the weather for today and tomorrow
- **Government weather alerts:** Provides access to government weather alerts

Java program to fetch weather from open weather api?

```
package com.kodnest.api.openweatherapi;

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.net.HttpURLConnection;

import java.net.URL;

public class WeatherFetcher {

    private static final String API_KEY = "YOUR_API_KEY";
```

```

private static final String BASE_URL = "http://api.openweathermap.org/data/2.5/weather";

public static void main(String[] args) {

    String cityName = "London"; // Change this to your desired city

    fetchWeather(cityName);

}

public static void fetchWeather(String cityName) {

    try {

        // Construct the API URL

        String urlString = String.format("%s?q=%s&appid=%s&units=metric", BASE_URL, cityName,
API_KEY);

        URL url = new URL(urlString);

        HttpURLConnection connection = (HttpURLConnection) url.openConnection();

        connection.setRequestMethod("GET");


        // Check the response code

        int responseCode = connection.getResponseCode();

        if (responseCode == HttpURLConnection.HTTP_OK) {

            BufferedReader in = new BufferedReader(new
InputStreamReader(connection.getInputStream()));

            String inputLine;

            StringBuilder response = new StringBuilder();

            while ((inputLine = in.readLine()) != null) {

                response.append(inputLine);

            }

        }

    }

}

```

```

        in.close();

        // Print the weather data

        System.out.println("Weather Data: " + response.toString());
    } else {

        System.out.println("GET request not worked. Response Code: " + responseCode);

    }

} catch (Exception e) {

    e.printStackTrace();

}

}

}

```

OMDb Api?

The Open Movie Database (OMDb) is a free, independent service that aggregates movie information from various sources:

What it does:

OMDb provides a RESTful web service to retrieve movie or series information, such as titles, plots, actors, years, and posters

Java program to fetch Any Movie from OMDb api?

```

import java.io.BufferedReader;

import java.io.InputStreamReader;

import java.net.HttpURLConnection;

import java.net.URL;

```

```

public class MovieFetcher {

```

```

public static void main(String[] args) {

    String apiKey = "YOUR_API_KEY"; // Your TMDb API key

    String movieTitle = "Inception"; // Example movie title

    String urlString = "http://www.omdbapi.com/?t=" + movieTitle + "&apikey=" + apiKey;

    try {

        // Create URL object

        URL url = new URL(urlString);

        HttpURLConnection connection = (HttpURLConnection) url.openConnection();

        connection.setRequestMethod("GET");

        // Get response code

        int responseCode = connection.getResponseCode();

        // If the response code is 200 (HTTP_OK), read the response

        if (responseCode == HttpURLConnection.HTTP_OK) {

            BufferedReader in = new BufferedReader(new
InputStreamReader(connection.getInputStream()));

            String inputLine;

            StringBuilder response = new StringBuilder();

            // Read the response

            while ((inputLine = in.readLine()) != null) {

                response.append(inputLine);

            }

            in.close();

            // Print the movie data

            System.out.println("Movie Data: " + response.toString());

```

```
    } else {  
        System.out.println("Error: " + responseCode);  
    }  
} catch (Exception e) {  
    e.printStackTrace();  
}  
}  
}
```