

## Parsing JSON in Java

This document provides instructions of how to parse JSON in Java. JSON stands for Java Script Object Notation and it is a common format of web service output.

In following code snippet, an HTTP request is sent to tinysong web service, which is a RESTful service, and a JSON formatted result is returned.

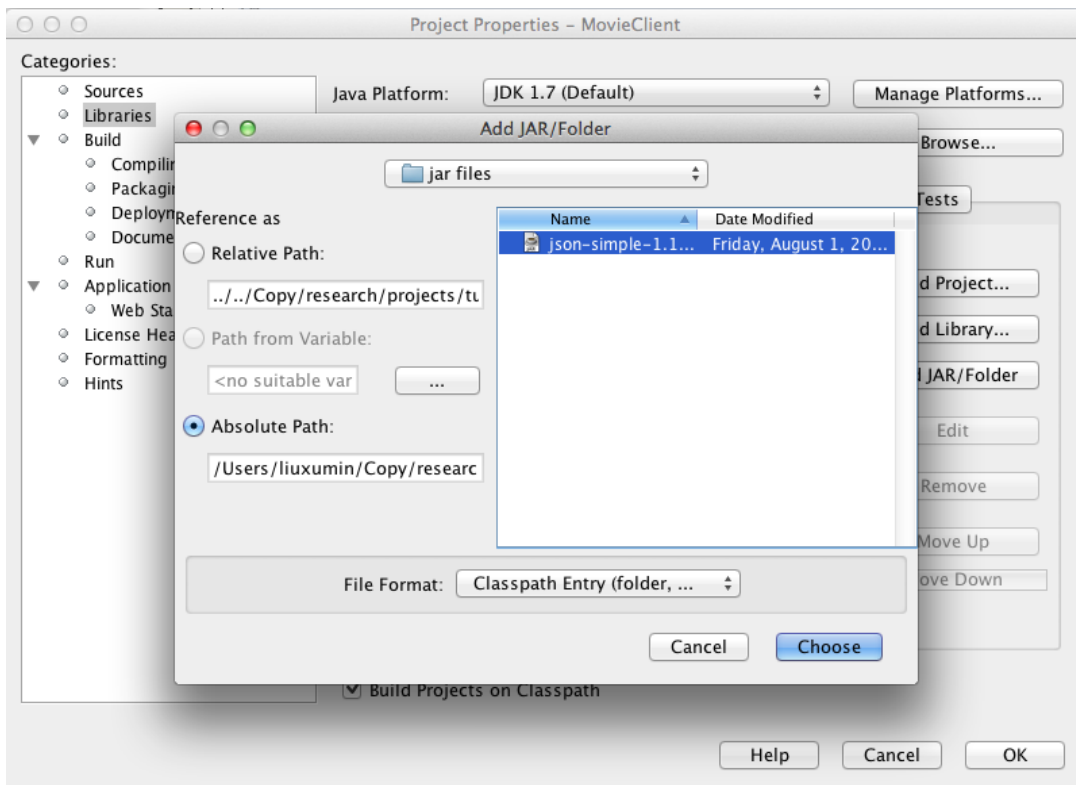
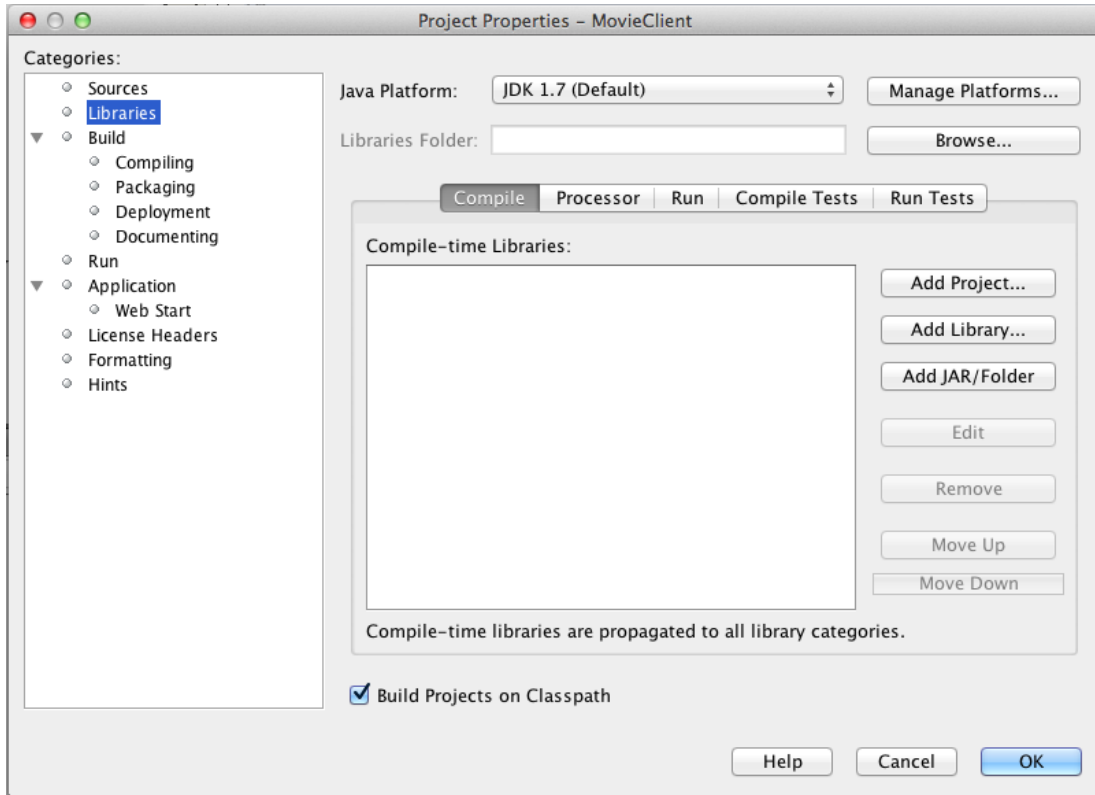
```
String query="Usher";String key = "0306a279dcf01f196621c6ccca3b11a8";

URL url = new URL("http://tinysong.com/s/" + query + "?format=json&key=" +
key);
URLConnection connection =HttpURLConnection) url.openConnection ();
connection.setRequestMethod("GET");
connection.connect();
BufferedReader bufferReader = new BufferedReader(new InputStreamReader
(connection.getInputStream()));
String str;
StringBuffer stringBuffer = new StringBuffer();
while ((str = bufferReader.readLine()) != null) {
    stringBuffer.append(str);
    stringBuffer.append("\n");
}
System.out.println(stringBuffer.toString());
str = stringBuffer.toString();
```

To parse a Json result stored in str,

### **Step 1: Add JSON library to the project:**

- Download json.simple library (.jar ) file from here :[Link](#)
- Right click over the project tree structure
- Click on Project Properties
- Click on Libraries
- Click on Add JAR/Folder
- Browse and find the place where you downloaded the json.simple JAR
- Add the Jar file



## Step 2: Create and use the JSON parser:

- Create JSON parser

```
JSONParser parser = new JSONParser();
```

- Parse str .

```
Object obj = parser.parse(str);
```

- As str is an array of records, a JSONArray is created. We cast the Object into JSONArray.

```
JSONArray msg = (JSONArray) obj;
```

- The JSONArray corresponds to a Map structure in java so we create an iterator to loop through it. Inside the JSONArray we have JSONObject separated by commas. We set the next item from the JSONArray to be a JSONObject and perform a get Operation using the key

```
Iterator<?> iterator = msg.iterator();  
JSONObject a ;  
while (iterator.hasNext()) {  
a=(JSONObject) iterator.next();  
System.out.println(a.get("SongName"));  
}
```

### Output result:

```
DJ Got Us Falling In Love Again [Ft. Pitbull]  
Good Kisser  
OMG (Ft Will.I.Am)  
You Remind Me  
NICKI MINAJ FT CHRIS BROWN - RIGHT BY MY SIDE  
Black Black Heart 2.0  
Burn  
Confessions, Part 2  
Yeah! (feat. Usher & Ludacris)
```