JMeter Testing (Load Testing)

Why are we using Jmeter?

Apache JMeter is used for testing performance of both on static and dynamic resources (files, Servlets, Perl scripts, Java Objects, Data Bases and Queries, FTP Servers and more). It is used for load simulating load on server or object to test its endurance and performance.

What are we testing in our application?

In our application we have followed a Service Oriented Architecture. We want to test and check the performance (load testing) of our web service for multiple users.
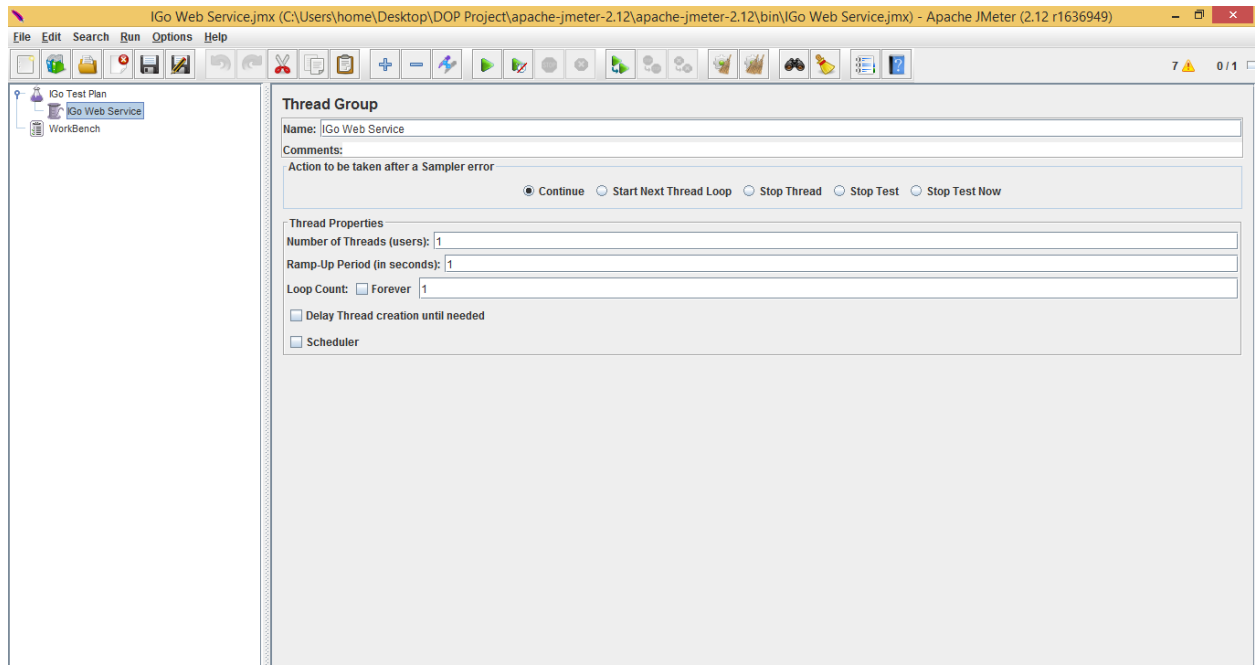Our web service is hosted on
http://54.69.0.233:8080/iGoWeb/HappyPathClientService?wsdl.
This service accepts a SOAP request and responds with data in the similar format.

Creating a Web Test Plan

1. Creating a Thread group:

   We have to right click on test plan and select Add Threads (Users) -> ThreadGroup. We can set the number of users and the ramp up period which means the time in which all the users must be started and the loop count which the number of times requests are passed in the thread group.

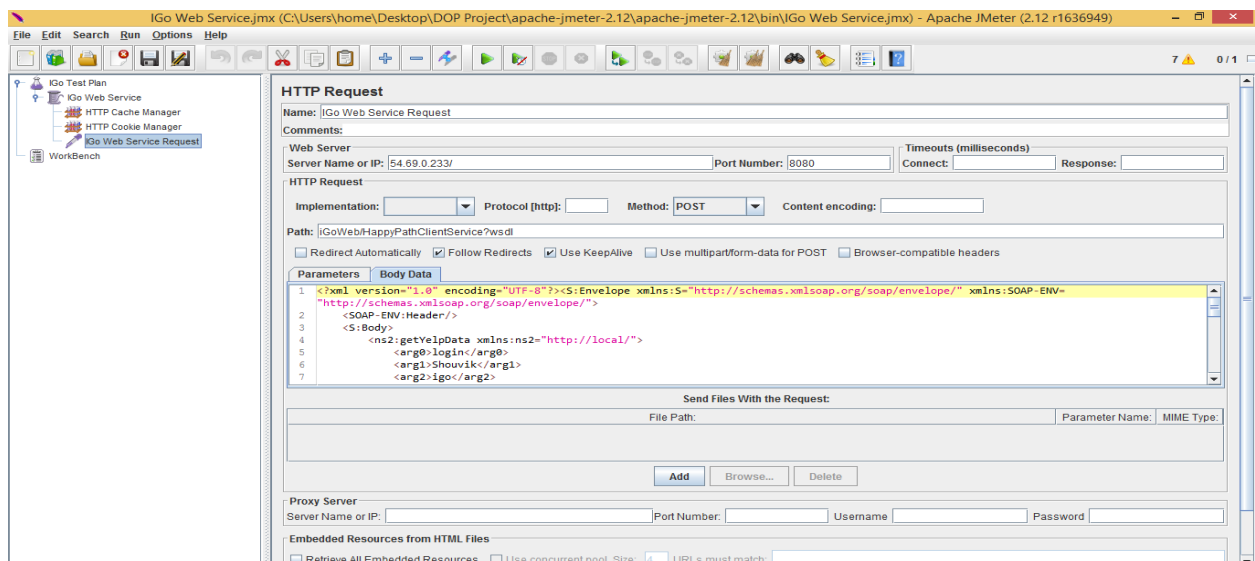   Below is the screenshot of our thread group.

2. Now we add Config elements.

   - HTTP Cache Manager
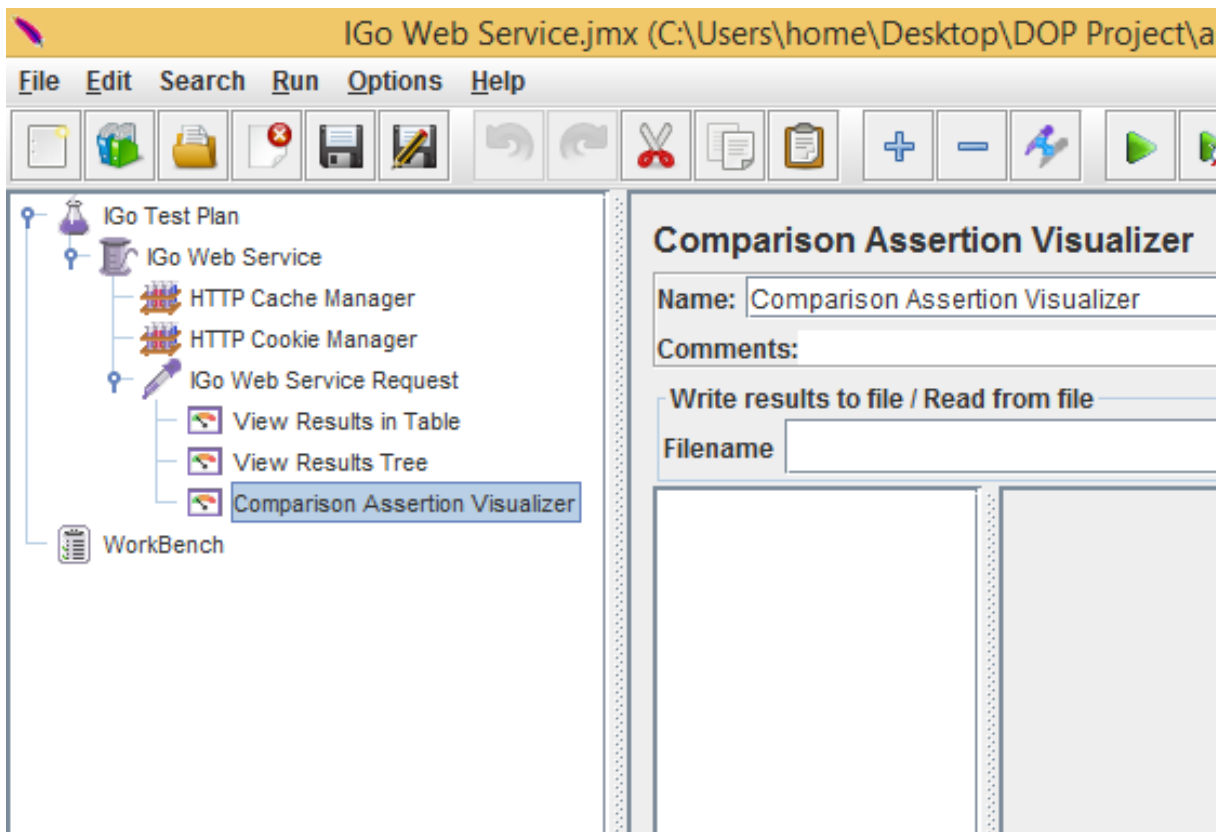   - HTTP Cookie Manager

3. Our next step involves adding a Sampler.
   We add a new HTTP Request and configure it in accordance to our web service.
   Below is the snapshot.

4. Now we add a Listener to this HTTP Request so that is captures the response. We use three types of listeners:

- View Results in Table
- View Results in Tree
- Comparison Assertion Visualizer

We similarly create different HTTP Requests for different scenarios of our application. The .jmx file for the test results is included in the folder.