#503(prac4a)---27/07/19---

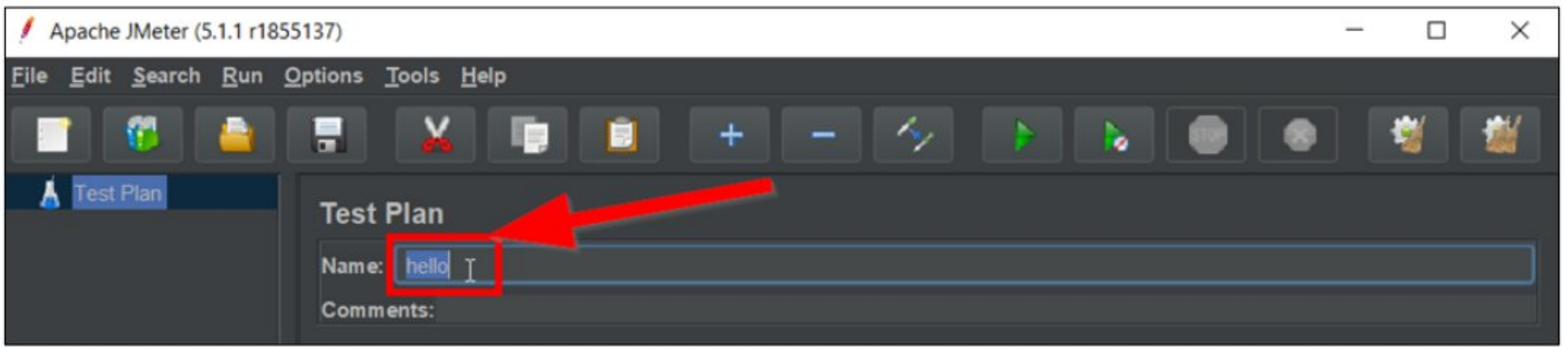
#AIM: Load Testing using JMeter.

PRE-REQUISITES:

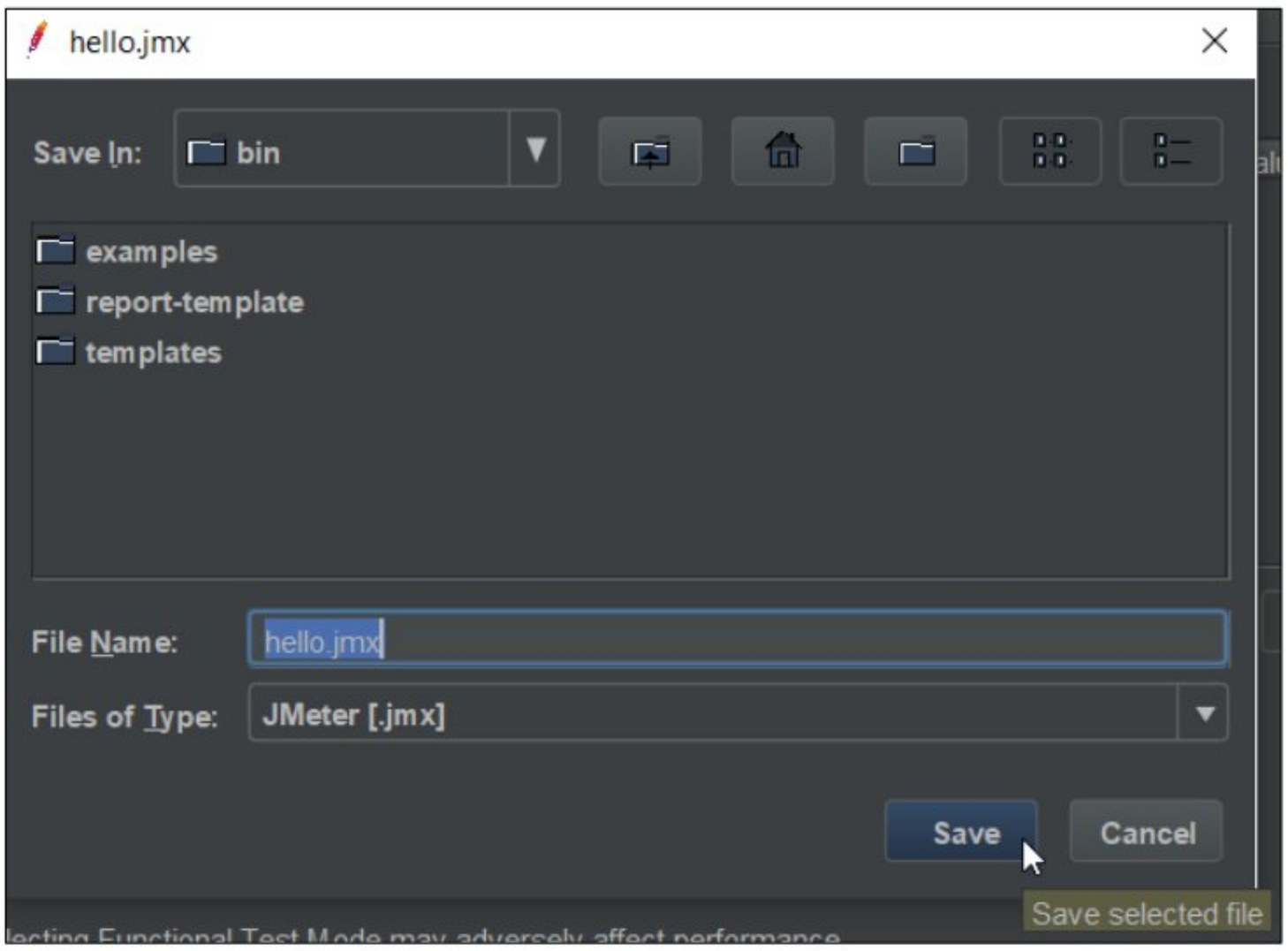
1) To Download **"JDK":**
   - **Visit** https://www.oracle.com/technetwork/java/javase/downloads/jdk12-downloads-5295953.html
   - **Download** this file "jdk-12.0.2_windows-x64_bin.exe" and **install it.**
2) To Download **"Apache JMeter":**
   - Visit https://jmeter.apache.org/download_jmeter.cgi
   - Under section "**Apache JMeter 5.1.1 (Requires Java 8+)**"
   - Under sub-section "**Binaries**", download "apache-jmeter-5.1.1.zip" file.
   - Installation:
     - Extract the "apache-jmeter-5.1.1.zip" file.
     - Navigate to: ***apache-jmeter-5.1.1 > bin >*** the "***ApacheJMeter.jar"*** *file* is your working space.

STEPS:

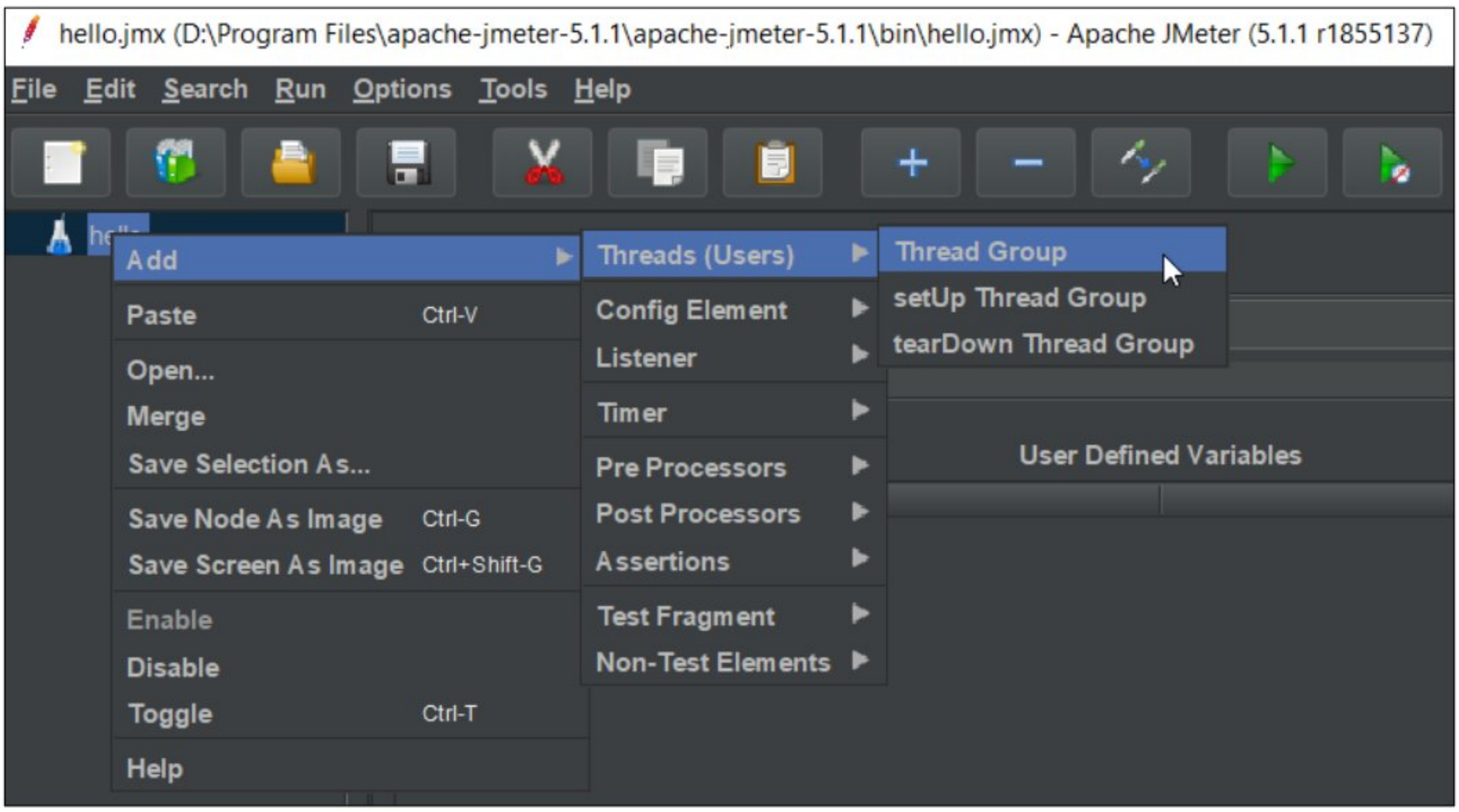
1) **Open "ApacheJMeter.jar"** file**. Name your *Test Plan*** as ***"hello"*****:**



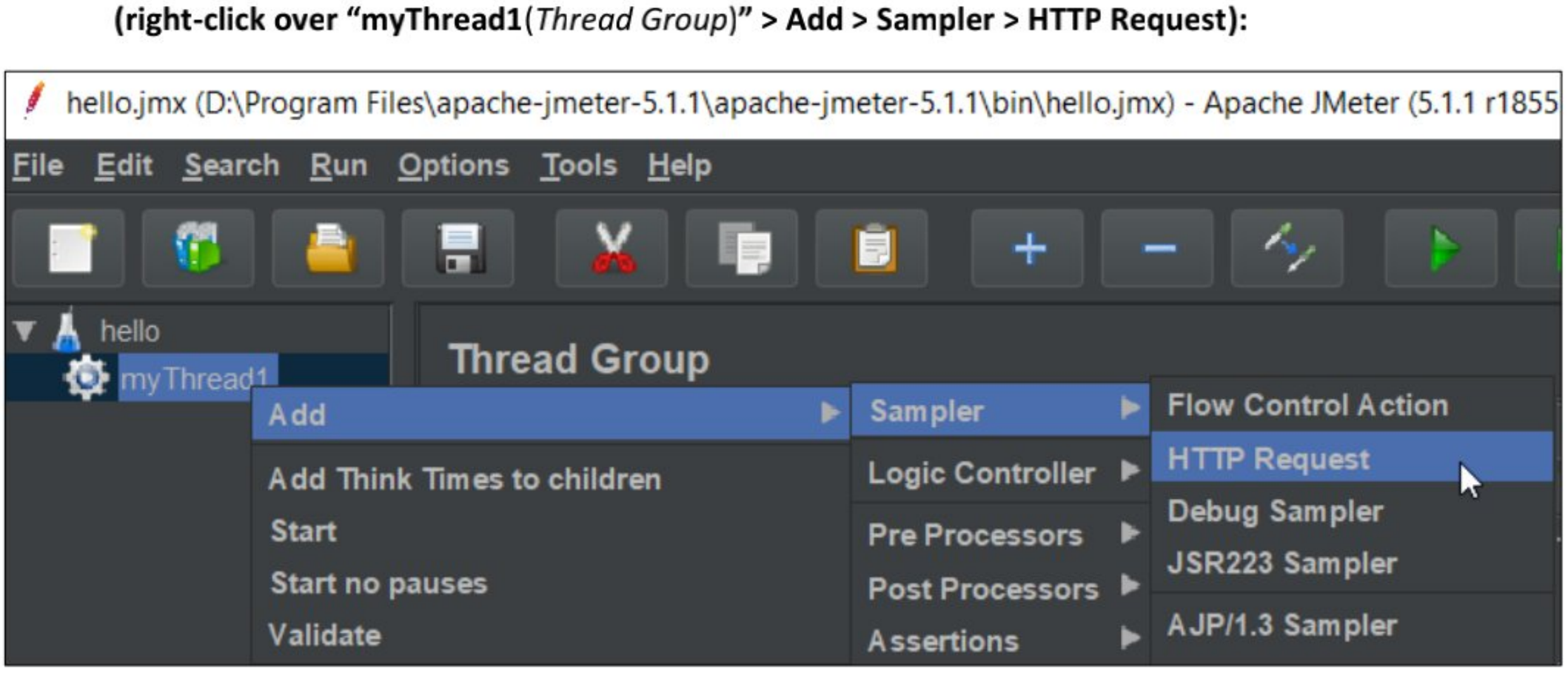
2) **Save(CTRL+S)** your Test Plan. It will be saved as ".jmx"(i.e. Java Management Extensions)**:**



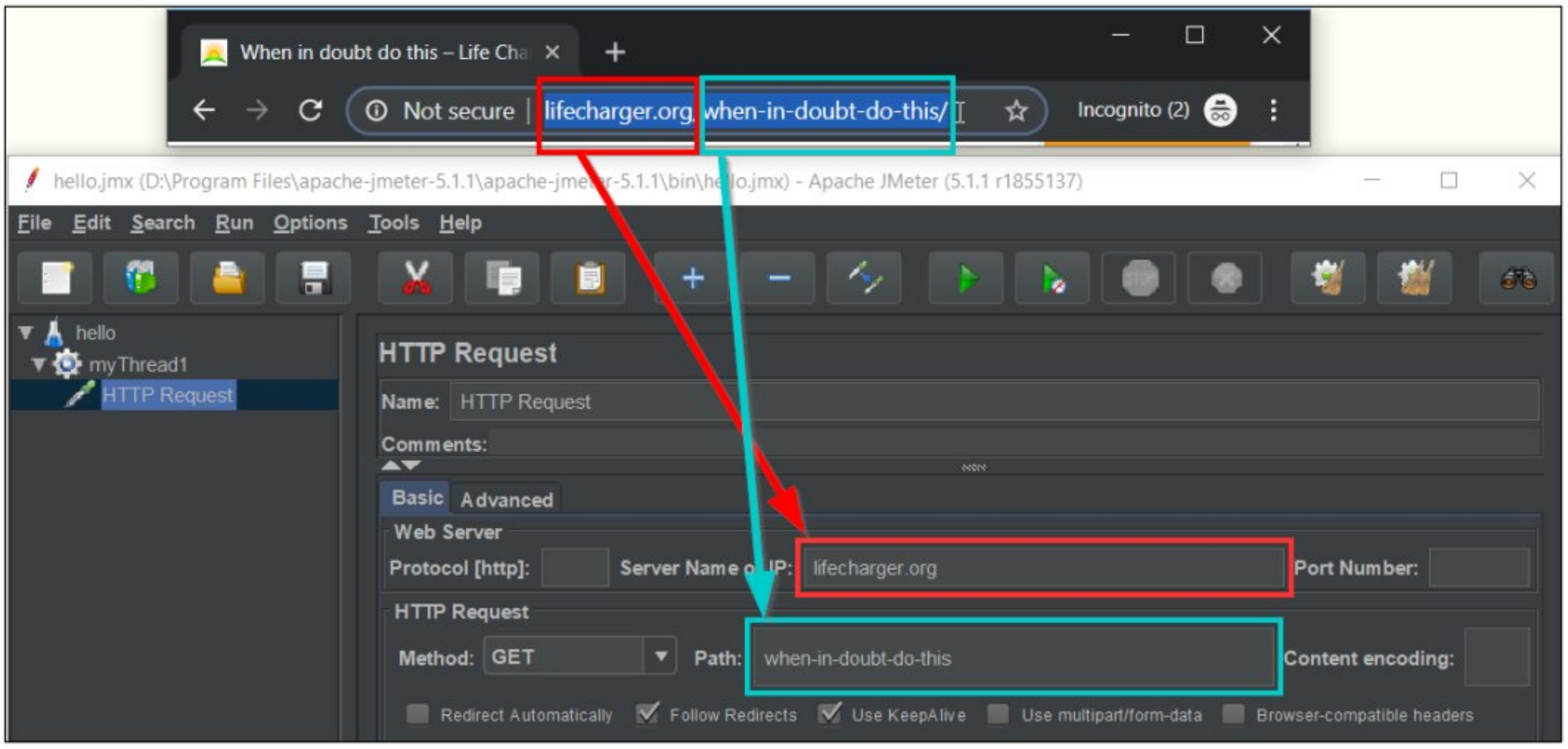
3) Create a ***Thread Group***
(right-click over "hello(*Test Plan*)**" > Add > Thread(Users) > Thread Group >**
Name your *Thread Group* as ***"myThread1"*** **> Save(CTRL+S)):**



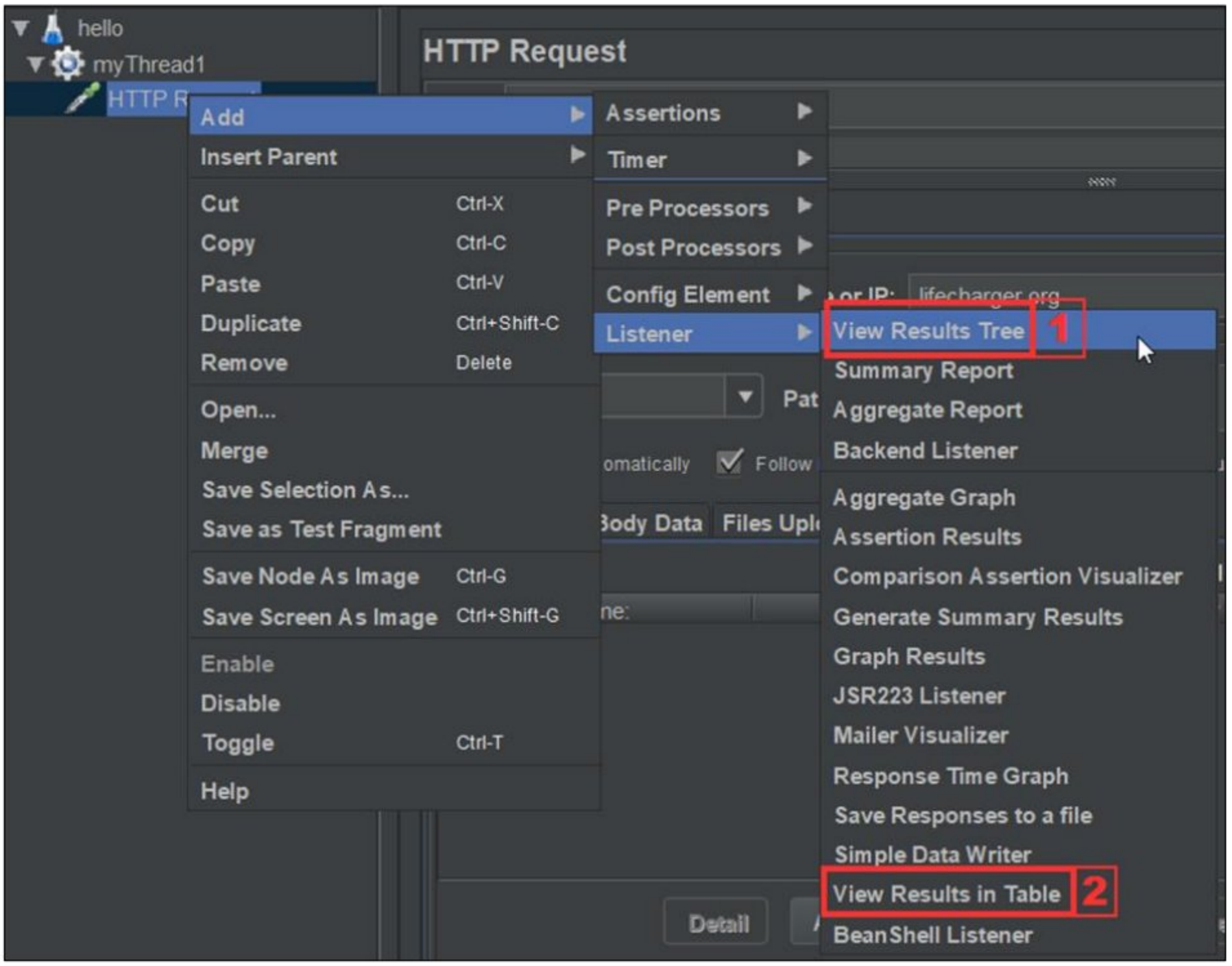
4) Under Thread Group(myThread1), add a "Sampler", namely ***HTTP Request***:
(right-click over "myThread1(*Thread Group*)**" > Add > Sampler > HTTP Request):**



5) Now visit any website page with a next path. Then **set** *website name* as "**Server Name or IP**" & *next path* as "**Path**" in the Basic panel:

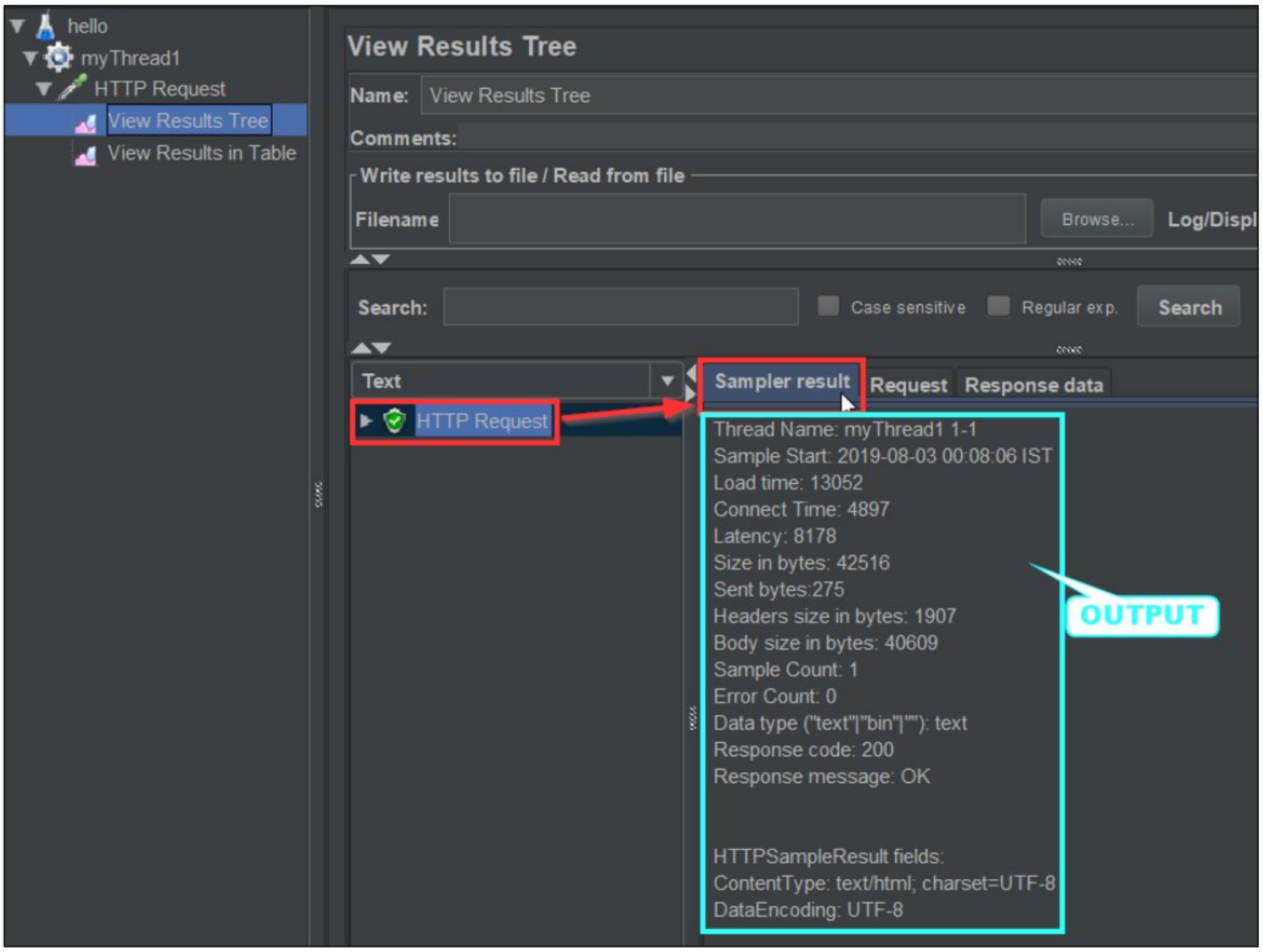


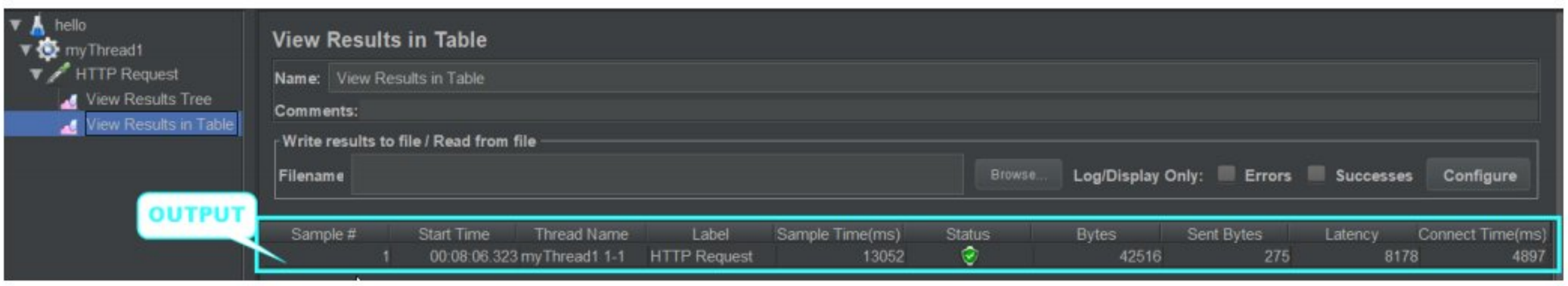
6) Under HTTP Request Sampler, add 2 "Listeners", namely ***View Results Tree*** & ***View Results in Table:***
(right-click over HTTP Request(*Sampler*)**> Add > Listener > View Results Tree) &**
(right-click over HTTP Request(*Sampler*)**> Add > Listener > View Results in Table):**



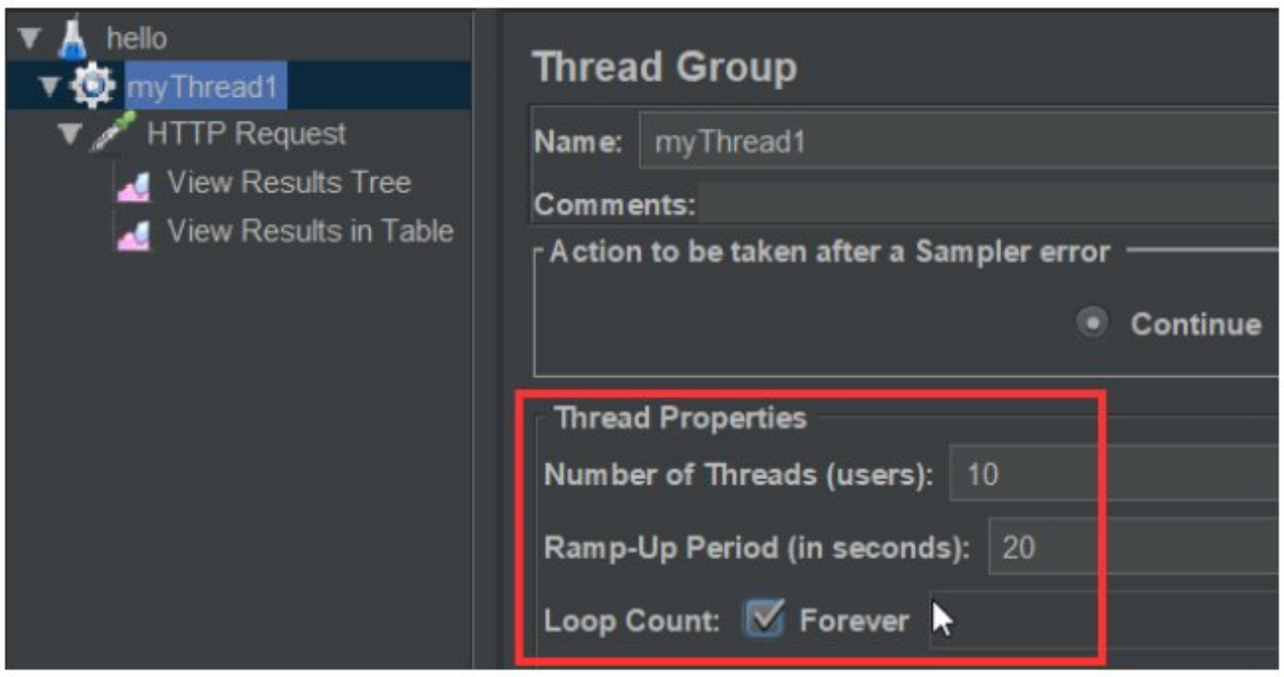
7) **Save(CTRL+S) & Run(CTRL+R)** the file and wait for a while. You'll see some:

- **OUTPUTS:**



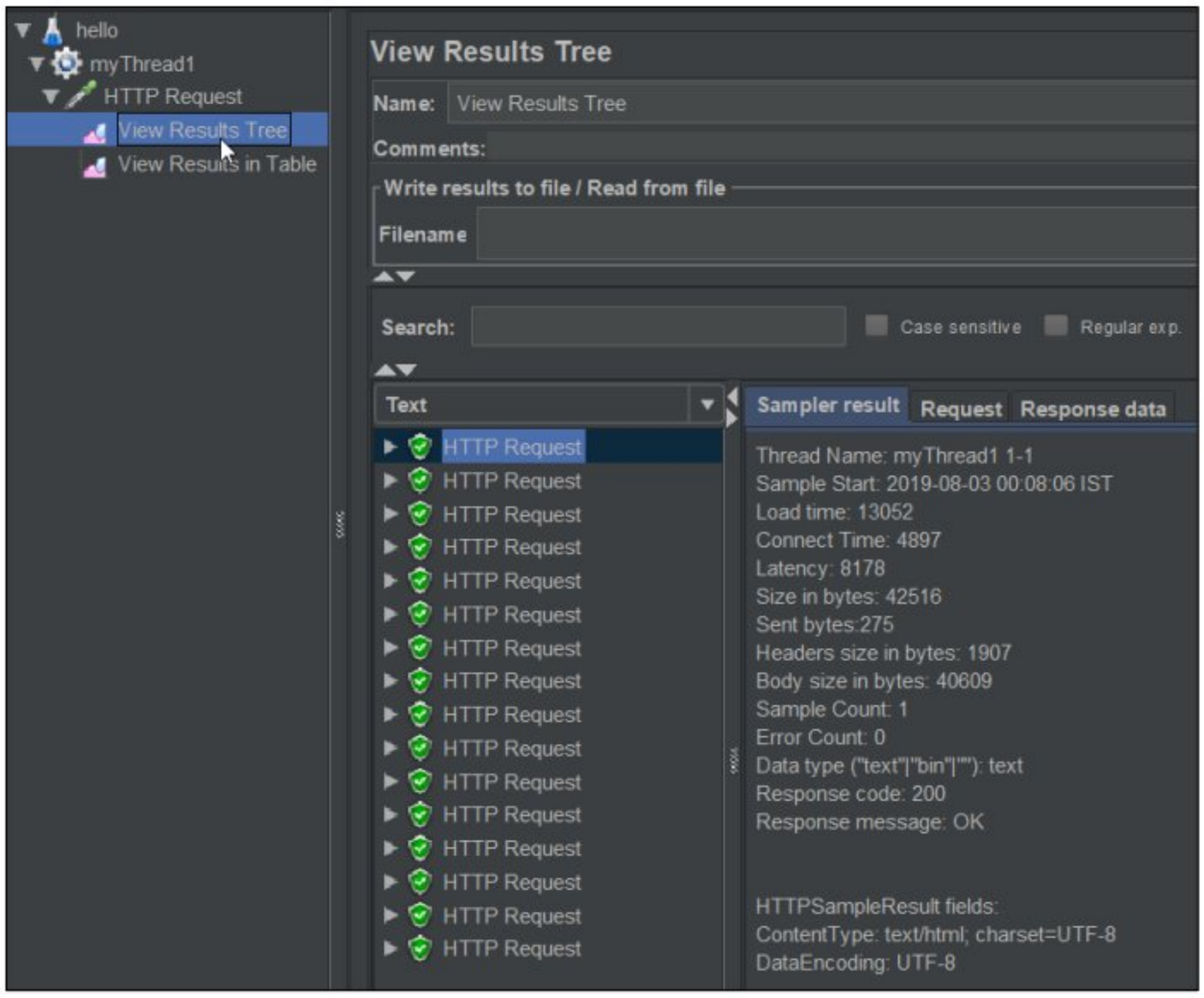


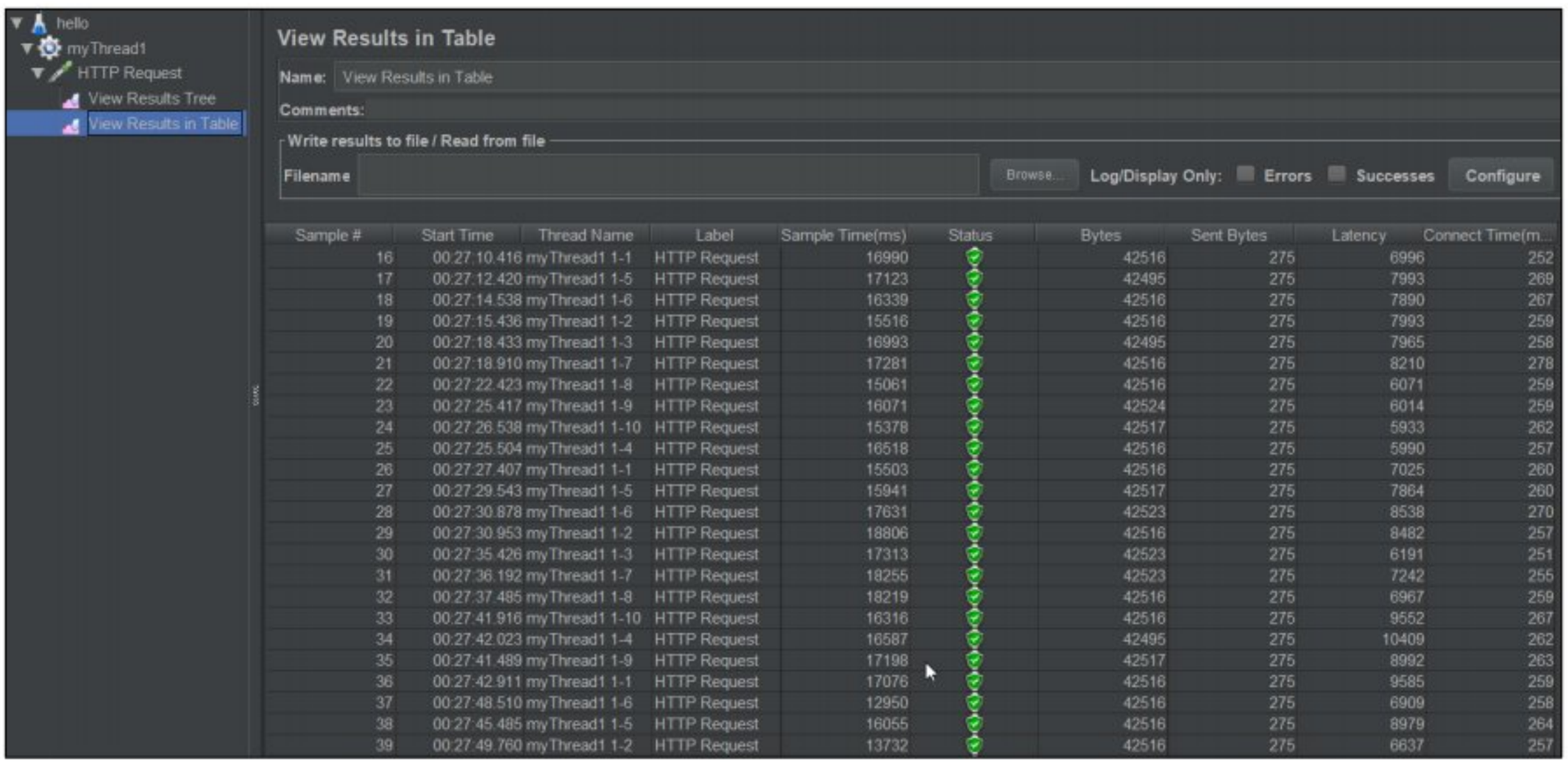
8) Now change some Thread Properties**(users=10; ramp-up period=20; loop count=Forever):**



9) **Save(CTRL+S) & Run(CTRL+R)** the file and wait for a while. You'll see some infinite:

- **OUTPUTS:**





10) Finish!

Apache JMeter is:

-designed to load test functional behavior and measure performance.

-used to test performance both on static and dynamic resources, web dynamic applications.

Some features include: ability to test many apps/server/protocol types; Test Plan recording, building, debugging; complete report; portable; pure java; multi-threading; offline analysis of results; highly extensible core.