

Performance Task

Question. I “Scripting”

Develop a working JMeter script simulating a full user journey to be as follows:

- 1- Navigate to <http://automationpractice.com/> landing Page.
- 2- Click on “Sign In” button displayed on the upper right corner on the landing page.
- 3- Type in the following credentials in both “Email address” and “Password” fields and then hit “Sign In”.
Email: ITI41@gmail.com
PW: ITI41
You can use these working credentials or you can manually register as many as you like.
- 4- Now you should be on the “My Account” page, From the upper navigation bar click on “T-SHIRTS”.
- 5- Hover your mouse on “Faded Short Sleeve T-Shirts” after that you will be able to add it to your cart.
- 6- A popup box will be displayed confirming your item, use it to “Proceed to checkout”.
- 7- On the “SHOPPING-CART SUMMARY” page click on “Proceed to checkout”.
- 8- On the “ADDRESSES” page click on “Proceed to checkout”.
- 9- On the “SHIPPING” page click on “Proceed to checkout”. (Make sure to check terms and conditions checkbox first).
- 10- On the “Payment Method” page click on “Pay by bank wire”.
- 11- On the “Order Summary” page click on “I confirm my Order”.
- 12- Validate that the order has been dispatched by asserting on “Your order will be sent as soon as we receive payment.” On the “ORDER CONFIRMATION” Page.

Script quality will be judged as follows:

- 1- The correct use of parameterization, try as much as you can to make your script fully independent on test data. By replacing hardcoded values on each request by a user defined variable.
- 2- Adding assertion for each response to validate the correct user navigation through the different pages. Make it a text response assertion not a response code.
- 3- Make you script independent on the running environment by using HTTP Request Defaults.
- 4- All the multivalued test data (Like No. of Passengers, Departing From, Service Class, Flights,...etc.) should be placed in an external sheet and then read through the use of " CSV Data Set Config”.
- 5- Use Constant Timers with reasonable delays therefore, we can have a more realistic script.
- 6- User Cache manager as force it to clear cache for each iteration.
- 7- Feel free to use Cookie manager when needed.

Delivery:

Name your project file as “JMeter_Assignment.jmx” and upload it alongside the (Test_Data.csv) file. And attach them to the mail thread where I sent you this task.

Guidelines and hints:

- 1- Check “Generate Parent Sample” in each Transaction Controller so you can have all its dispersed requests grouped and attached to its parent. That will make them easier to be tracked on the “View Results Tree”.
- 2- Make sure that the added components (Assertions, Timers) are correctly attached to the parent request.
- 3- You have two different approaches to enhance your already recorded requests A. The first one is by enhancing the requests one by one. Move across each request and fully enhance it (Adding variables , Assertions, Timers,..etc.) and then continuously run it to make sure that the added components are working fine for this request. Having everything working, move to the second request and then to the third and so on so forth.

B. The second approach is by adding the enhancements (one by one) for all the requests at once. For example add Timers for all the requests and then make a dry run. Should everything work fine start adding another enhancement (Assertions for example) to the whole requests and then make another run to validate and keep doing that until you are finished.

Feel free to follow any of these approaches or even mix between them as long as you are feeling comfortable and not getting your script messy.

Question. II “Running and Analyzing”

For the already developed script in Question. I, add a Simple “Thread Group”, an “Aggregate Report”, make a full performance run with two users for a quarter of an hour duration, watch your “Aggregate Report” counting and accumulating the results and when it’s done take a screenshot for that aggregate report.

Validate your obtained results against these SLAs:

- 1- The **total error percentage** for all samples must not exceed **(10 %)**.
- 2- At least **90%** of the **total** issued requests must not exceed **(15 seconds)**.
- 3- At least **99%** of the **“Sign In”** requests must not exceed **(4 seconds)**.

Delivery:

A pdf file (Report.pdf) where your aggregate report screenshot is placed; also add a 3-rows table in the same document. Each row shall represent the status for each SLA mentioned above. Shade any violated SLA(s) in **Red**. And the passed ones in **Green**.

Note : Please stick to **two users** run and don’t apply a large load on the system otherwise you may end up having all your IPs blacklisted by the site owner and we will no longer have access to it.

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Question. III “Load Profiling”:

A. Use the **“jp@gc - Stepping Thread Group”** that we have covered in our session to configure the following load profile:

Ramping up 100 users at a pace **1 user/second** and ramp down with an exit rate of **1 user/second**. The Load Profile should be looking like the following:



B. (Bonus Question) Not a mandatory question !

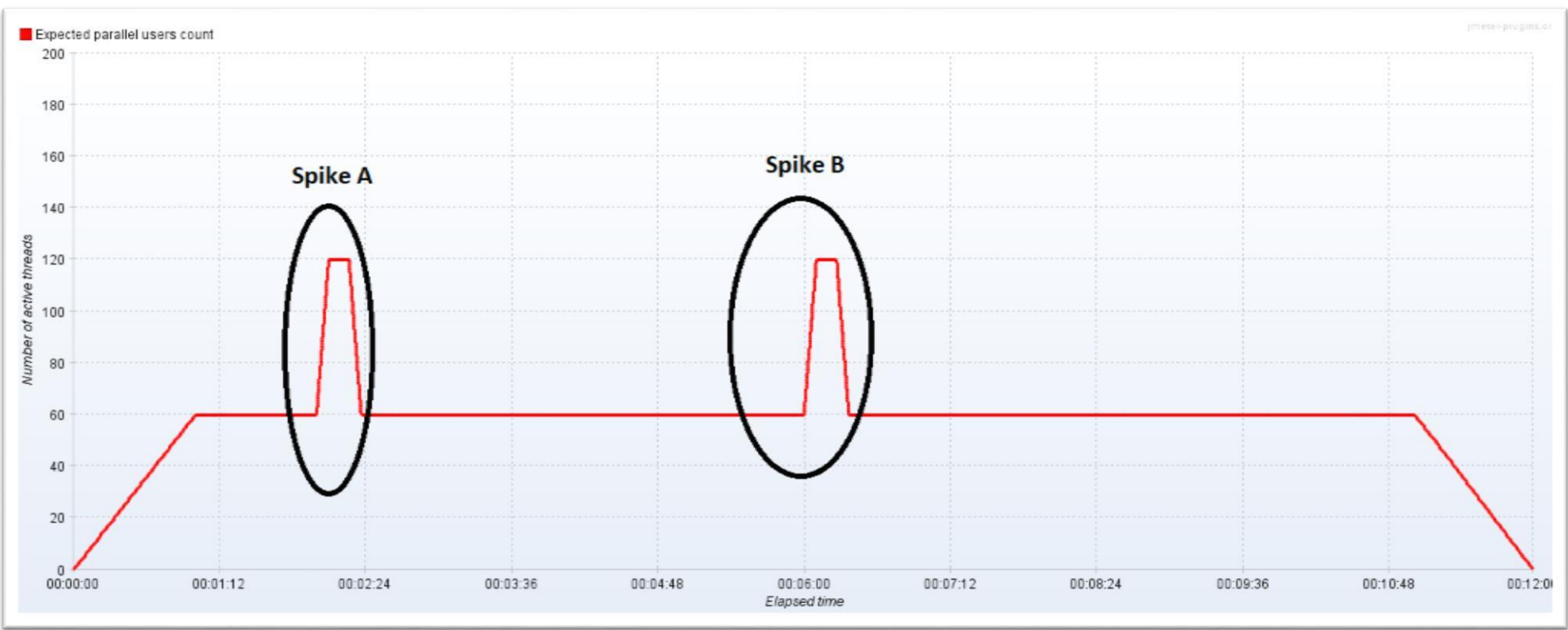
Use JMeter to generate the following Load Profile having two spikes:

- The normal applied load is 60 users with a ramp rate = 1 user/ second and hold time = 600 seconds and a ramp down rate of 1 user/second
- Spike A should be suddenly starting by adding 60 additional users to the system while it is under load, the spike should start 120 seconds after the test start, with a ramp rate of 10 users/seconds and a ramp down rate of 10 users/seconds.
- Spike B should similar to Spike A with the exception that it should be applied 360 seconds after the test start.

Now how are you going to configure that load profile?

Well, you have two ways to do that, the first one is by using "**jp@gc - Ultimate Thread Group**" you will have to read about it, as we did not cover it in our previous session.

The other way will require a "**Shaba7**" to do it without the use of **Ultimate Thread Group** just scratch your head and try to figure it out. 😊



Delivery:

Just Send the two load profiles each in a separate file, (First_Load.jmx) and (Second_Load.jmx).

For the load profile questions, **Do not add components, do not record anything, do not run anything**, just add thread groups, configure, save and send that is all.

Deadline:

The deadline for this task is Monday the 8th of March 2021.

Feel free to contact me or Gamal if you encountered any problems or needed any kind of support.

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All the best of luck!