

The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Electrical and Computer Engineering
Bachelor of Software Engineering Honours
EEX5362 – Performance Modelling
Mini Project



Answers should be clear, and readable. Unclear, unreadable, copied, and direct reproduction from the textbooks and internet will not gain any points for the answers. Delayed submissions will count minus marks. We will accept your Mini Project report within three (03) days after the due date and you will receive the (-05) marks per delay date.

Mini Project Submission Due Date: 19/05/2024

Prepare a test plan using JMeter tool for the below test scenarios.

Note – You do not need to create scripts on the *Pre-Requisites* part, you only need to create the script for the *User Flow(s)* Steps. However, you need to complete the *Pre-Requisites* to do the *User Flow(s)*

Pre-Requisites

- Open <https://petstore.octoperf.com/>
- Click **Enter the Store** Link
- Click **Sign In** link
- Click **Register Now!** link
- Create your Account.
 - Create **username & password** as test<your student number> e.g.: test12345.
 - Fill out the remaining details - **Email, First name, Last name, Status, Addr1, Addr2, City, State, Zip, Country, Phone** with dummy data.

Instructions

- Record User Flow 1 & Perform the Tasks 1-5 on that Recorded Script
- Record User Flow 2 & Perform the Tasks 6-9 on that Recorded Script
- Get User Flow 1 script User Flow 2 script under the same Test Plan & Perform the Tasks 10-15 on that Test Plan

User Flow 1

- Open <https://petstore.octoperf.com/>
- Click **Enter the Store** Link
- Click **Sign In** link
- Enter the Username & Password
- Click **Login** button
- Select the Pet as **Fish** in the Main Menu
- Select the **Product ID of Angel fish** from the table in the Fish Page
- Select the **Item ID of Large Angel fish** from the table in the Angel Fish Page
- Click **Add to Cart** button in the Large Angel Fish page
- Click **Proceed to checkout** button in the Shopping Cart Page
- Fill out the Payment Details (use fake card details)
- Fill out the Billing Address Details, Do not check the Ship to different address check box
- Click **Continue** button
- Click **Confirm** button in the Order Page
- Click **Return to Main Menu** link in Order Details Page
- Click **Sign Out** from the Main Menu

Perform the below tasks 1-5 on the recorded script for User Flow 1.

1. Name The Thread group for the Script as User Flow 1.
2. Add Think Times/Step Delays between each transaction. All think times should be 2 seconds.
3. Get the Pet Data from a csv data sheet
 - a. Add all Pet categories available
 - i. FISH
 - ii. DOGS
 - iii. CATS
 - iv. REPTILES
 - v. BIRDS
 - b. The Data sheet must only contain the Pet categories, no Product IDs or Item IDs should be added to the data sheet
4. Make sure that the **Product ID** & the **Item ID** get automatically changed based on the Pet Category (use Regular Expression Extractor)
5. **Product ID** & the **Item ID** should get Randomly Selected from the available results

User Flow 2

- a. Open <https://petstore.octoperf.com/>
- b. Click **Enter the Store** Link
- c. Click **Sign In** link.
- d. Enter the Username & Password
- e. Click **Login** button.
- f. Enter **Angel fish** in the search text box & Click **Search** button.
- g. Select the 1st Result from the result list.
- h. Click **Add to Cart** button of the 1st of the listed options.
- i. Update the quantity for 2 & click **Update Cart** button.
- j. Click **Proceed to checkout** button in the Shopping Cart Page
- k. Fill out the Payment Details (use fake card details)
- l. Fill out the Billing Address Details, do not check the Ship to different address check box
- m. Click **Continue** button.
- n. Click **Confirm** button in the Order Page
- o. Click **Return to Main Menu** link in Order Details Page
- p. Click **Sign Out** from the Main Menu

Perform the below tasks 6-9 on the recorded script for User Flow 2.

6. Name The Thread group for the Script as User Flow 2.
7. Add Think Times/Step Delays between each transaction. All think times should be 3 seconds.
8. Use the below Pet Search Criteria form a CSV data sheet.
 - a. Add below pets to search.
 - i. Angel Fish
 - ii. Bull Dog
 - iii. Manx
 - iv. Parrot
 - v. Finch
 - b. The Data sheet must only contain the Pet name, no Product IDs or Item IDs should be added to the data sheet.
9. Randomize Selections for Steps g & h

Add both recorded scripts/Thread groups for user flow 1 & 2 under the Same Test Plan and perform below tasks 10 – 15.

10. Add below 2 listeners to the test plan.

- a. View Results Tree

Set the View Results tree to save the results data as xml format. Steps to perform this activity is mentioned at the end of this Paper.
 - b. Aggregate Report
11. Run the Test for 5 Loops, 1 user per Thread group.
 12. Using the test run in Step 11, Find the Average response times to below transactions.
 - a. Click Login Button
 - b. Click Add to Cart button
 - c. Click Proceed to Checkout button
 - d. Order Confirmation
 - e. Return to Main Menu
 13. Save the Aggregate Report to a csv file. (Use the 'Save Table Data' option in aggregate report listener), use the naming format as "miniproject-aggregate_<your name>_<student no>.csv"
 14. Save your Test Plan with naming format "miniproject-Test_<your name>_<student no>.jmx"
 15. Save your View Results tree results with naming format "miniproject-Results_<your name>_<student no>.xml"

Share the Saved Scripts/Tests, Data Sheets, Aggregate Report, Results tree & Answers to Question/Task 12 files by the date:

Steps to Save the View Results Tree data.

Follow the steps below before running the test.

1. Add View Results Tree listener to the test Plan
2. Click Configure button, in the Listener

The screenshot shows the 'View Results Tree' configuration window. The 'Name' field is set to 'View Results Tree'. The 'Write results to file / Read from file' section has a 'Filename' field. The 'Log/Display Only' section has checkboxes for 'Errors', 'Successes', and 'Configure'. The 'Configure' button is circled in red.

3. Select the Configurations as below screen shot

The screenshot shows the 'Sample Result Save Configuration' dialog box. All options are checked:

- ☒ Save As XML
- ☒ Save Elapsed Time
- ☒ Save Response Message
- ☒ Save Success
- ☒ Save sent byte count
- ☐ Save Response Filename
- ☐ Save Encoding
- ☒ Save Idle Time
- ☒ Save Response Headers (XML)
- ☒ Save Assertion Results (XML)
- ☒ Save Field Names (CSV)
- ☒ Save Label
- ☒ Save Thread Name
- ☒ Save Assertion Failure Message
- ☒ Save Active Thread Counts
- ☒ Save Latency
- ☐ Save Sample and Error Counts
- ☒ Save Request Headers (XML)
- ☒ Save Response Data (XML)
- ☒ Save Time Stamp
- ☒ Save Response Code
- ☒ Save Data Type
- ☒ Save received byte count
- ☒ Save URL
- ☒ Save Connect Time
- ☐ Save Hostname
- ☐ Save Sampler Data (XML)
- ☒ Save Sub Results

The 'Done' button is at the bottom.

4. Provide the location to save the file & file name as below, with format as xml

The screenshot shows the 'View Results Tree' configuration window. The 'Filename' field is highlighted with a red box. The filename is 'D:\JMeter\apache-jmeter-5.4.3\Open Uni Scripts\miniproject-Results_nadeera_12345.xml'.

5. Run the test.