



NeoLoad Training V2023.2







Exercises

Exercise 1

After completing this exercise, you will be able to:

- Use the Tricentis training environment
- Record a simple User Path with NeoLoad
- Recognize the components of a User Path

Exercise 1

	Steps to Perform	Transactions	Application
1	Start a Recording. Click the Start Recording  button.		
2	Name the User Path ' Exercise 01 - Browser '		
3	Pick the browser type you are going to use for recording and click ' OK '. <i>If you get a pop-up asking you to close your browser, then close it before recording.</i>		
Make sure you have copied the JPetStore URL to your clipboard (http://training.local:8080/jpetstore/)			
4	Paste the URL in the browser and launch JPetStore	Home	
5	Click the ' Enter the Store ' link	Enter Store	
6	Select any pet from one of the images	Select Category	
7	Click on one of the products	Select Product	
8	Click on one of the items	Select Item	
9	Click the ' Add to Cart ' button	Add to Cart	
10	Click the ' Stop the recording '  button		
11	Click the ' Finish '  button on the ' Post-recording Wizard ' window		
12	Navigate through User Path ' Exercise 01 - Browser ' and see how it's built		








Finished

Exercise 2

After completing this exercise, you will be able to:

- Record a more structured User Path with NeoLoad
- Use the 'Flag' feature to find information in a User Path

Exercise 2



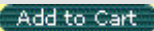

	Steps to Perform	Transactions	Application
1	Start a Recording. Click the Start Recording  button.		
2	Name the User Path ' Exercise 02 - Searcher '		
3	Pick the browser type you are going to use for recording and click ' OK '. <i>If you get a pop-up asking you to close your browser, then close it before recording.</i>		
Make sure you have copied the JPetStore URL to your clipboard (http://training.local:8080/jpetstore/)			
4	Paste the URL in the browser and launch JPetStore	Home	
5	Click the ' Enter the Store ' link	Enter Store	
6	Enter ' Amazon Parrot ' into the search field on JPetStore		
7	Click on the ' Search ' link	Search	
8	Click on the ' Great companion for up to 75 years ' link	Companion	
9	Click on the item ID of ' EST-18 ' link	Select Item	
10	Click the ' Stop the recording '  button		
11	Click the ' Finish '  button on the ' Post-recording Wizard ' window		
12	Use the  (' Flag Requests ') feature, ' whose definition contains ', to look for ' Amazon ' and ' EST-18 ' <ul style="list-style-type: none">• Search is case sensitive		









Finished

Exercise 3

After completing this exercise, you will be able to:

- Understand how technical parameters may influence a VU profile

	Steps to Perform	Transactions	Application
1	Start a Recording. Click the Start Recording  button.		
2	Name the User Path ' Exercise 03 - Buyer '		
3	Pick the browser type you are going to use for recording and click ' OK '. <i>If you get a pop-up asking you to close your browser, then close it before recording.</i>		
Make sure you have copied the JPetStore URL to your clipboard (http://training.local:8080/jpetstore/)			
4	Paste the URL in the browser and launch JPetStore	Home	
5	Log into JPetStore by clicking the ' Sign-in ' link. Keep the defaults.	Login	
6	Click the ' Submit ' button	Submit	
7	Select any pet from one of the images	Select Category	
8	Click on one of the products	Select Product	
9	Click on one of the items	Select Item	
10	Click the ' Add to Cart '  button	Add to Cart	
11	Click the ' Proceed to Checkout '  button	Checkout	





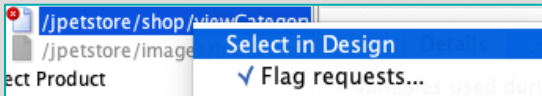
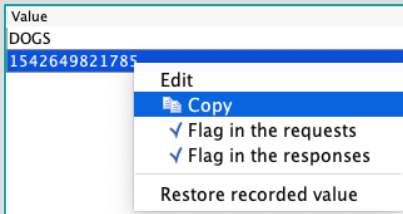
	Steps to Perform	Transactions	Application
13	Click the 'Continue'  button on the 'Checkout Summary' page	Checkout Summary	
14	Click the 'Submit'  button on the 'Payment Details' page	Payment Details	
15	Click the 'Continue'  button on the 'Order Details' page	Order Details	
16	Logout of JPetStore by clicking the 'Sign-out' link	Logout	
17	Click the 'Stop the recording'  button		
18	Click the  button on the Post-Recording Wizard		
19	Click the  (Check a user path) button to check the validity of why this might have failed the test		

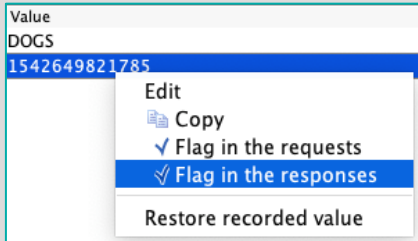




Do not try to fix the issue here.....this will be addressed in the next exercise








Exercise 4


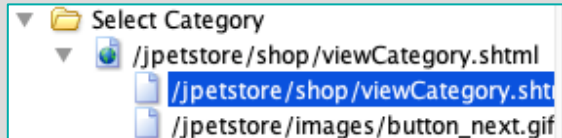

After completing this exercise, you will be able to:

- Correlate dynamic parameters with NeoLoad

	Steps to Perform	Transactions	Application							
Duplicate the User Path from 'Exercise 03 - Buyer' and name this one 'Exercise 04 - Buyer'										
1	Click the  (Check a user path) button to check the validity of why this might have failed the test									
2	Open the Check a user path  , on the 'Exercise 04 - Buyer', and locate the request with the HTTP 500 error by clicking on the small red icon  in the upper right of the window.									
3	Right-click on the failed request, in the tree window, and select the option 'Select in Design' to go back to the Controller									
Request should contain a value for ID equal to something like:		<table border="1"><thead><tr><th colspan="2">Request parameters:</th></tr><tr><th>Name</th><th>Value</th></tr></thead><tbody><tr><td>categoryId</td><td>DOGS</td></tr><tr><td>id</td><td>1542649821785</td></tr></tbody></table>		Request parameters:		Name	Value	categoryId	DOGS	id
Request parameters:										
Name	Value									
categoryId	DOGS									
id	1542649821785									
4	Right-click on the ID value and select 'Copy' to copy the number to your clipboard									

	Steps to Perform	Transactions	Application
5	Right-click on the ID number and select ' Flag in the Responses ' which will then identify a response, in the tree, with a blue check-mark. This is the response where the ID number resides		
There could be more than one transaction/page/request with a Blue checkmark. Choose the first one which appears in the User Path			
6	Go to the request that has the check-mark: <ul style="list-style-type: none">• "Submit" Transaction<ul style="list-style-type: none">• <code>"/jpetstore/shop/signon.shtml"</code> page<ul style="list-style-type: none">• <code>"/jpetstore/shop/signon.shtml;jsessionid=#####"</code> request		
7	Click the ' Advanced '  button to see the ' Advanced Parameters ' of the page		
8	Click the ' Variable extractors ' tab then click the ' Create a new extractor '  button		
9	On the ' Variable Extractor ' window, name the extraction ' Extracted_ID '		





	Steps to Perform	Transactions	Application
10	Click the 'Text Picker'  button, in the 'Starting with:' section of the window		
11	On the 'Response text picker' window, paste the ID number, that you copied earlier, into the 'Find' field and NeoLoad should highlight the value in the response section of the window: <ul style="list-style-type: none">		
12	Select the left boundary of the value: &id= and click the  button		
13	Click the 'Text Picker'  button in the 'Ending with' section		
14	Select the right boundary of the value: "> and click the  button		
15	Click the  button to complete the creation of the variable extraction		
NeoLoad has automatically created the Regular Extraction: &id=(.*?)">			
16	Single-click the 'Extracted_ID' line to highlight it		







	Steps to Perform	Transactions	Application			
17	Click the <input type="button" value="Search and replace..."/> button to search for values that match the RegEx and replace them					
18	On the 'Search and Replace' window click the <input type="button" value="Replace all"/> button to change the values					
19	Click the <input type="button" value="OK"/> button to complete the replacement action					
20	Click the <input type="button" value="OK"/> button to exit the 'Advanced Parameters' window					
	Go back to the request that had the ID number we originally searched: <ul style="list-style-type: none">• "Select Category" Transaction<ul style="list-style-type: none">• <code>/jpetstore/shop/viewCategory.shtml</code> request					
	You should now see <code>\${Extracted_ID}</code> <table border="1" data-bbox="901 908 1131 1031"><tr><td>Value</td></tr><tr><td>DOGS</td></tr><tr><td><code>\${Extracted_ID}</code></td></tr></table>	Value	DOGS	<code>\${Extracted_ID}</code>		
Value						
DOGS						
<code>\${Extracted_ID}</code>						
21	Click the  (Check a user path) button to check the validity. The test should now PASS					




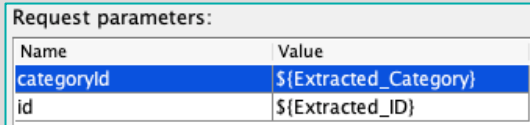
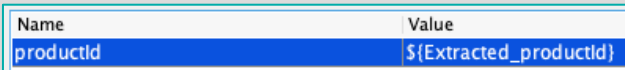
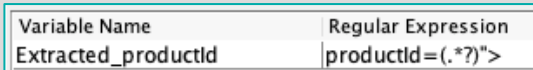
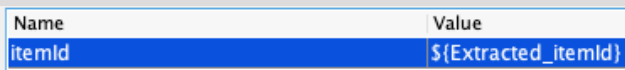
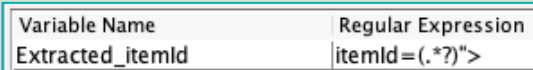


Exercise 5


After completing this exercise, you will be able to:




- Create and utilize variables





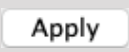

	Steps to Perform	Transactions	Application
	‘users.csv’ can be found in the “C:\Users\OrasiLabs\Desktop\Class Files\NeoLoad Training Materials” folder		
	Duplicate the User Path from ‘Exercise 04 – Buyer’ and name this one ‘Exercise 05 - Buyer’		
1	On the ‘Exercise 05 - Buyer’ User Path, open the ‘Select Category’ transaction and click the request: <ul style="list-style-type: none">/jpetstore/shop/viewCategory.shtml		
2	Right-click on the Category value (‘whateverValueYouUsed’) select ‘Copy’ to copy to your clipboard		
3	Right-click on the Category value and select ‘Flag in the Responses’ which will then identify a response in the tree, causes a blue checkmark in the User Path. This is the response where the Category value resides in a response.		
4	Go to the request <ul style="list-style-type: none">‘Submit’ Transaction<ul style="list-style-type: none">‘/jpetstore/shop/signonForm.shtml’ request		
5	Click the ‘Advanced’  button to see the ‘Advanced Parameters’ of the page		
6	Click the ‘Variable extractors’ tab and click the ‘Add’ button 		
7	Name this extraction ‘Extracted_Category’ and click the ‘Text Picker’  button in the ‘Starting with’ section of this window		






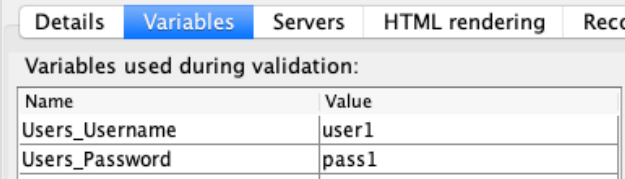
	Steps to Perform	Transactions	Application
8	On the ' Response text picker ' window, paste the Category value into the ' Find ' field and NeoLoad should highlight the value in the response section of the window: <ul style="list-style-type: none">"jpetstore/shop/viewCategory.shtml?categoryId=whateverValueYouUsed"><img border="0" src="../../images/sm_dogs.gif"		
9	Select the left boundary of the value: categoryId= and click the  button		
10	Click the ' Text Picker '  button in the ' Ending with ' section		
11	Select the left boundary of the value: "><img border= and click the  button		
12	Click the  button to complete the creation of the variable extraction		
NeoLoad has automatically created the Regular Extraction: categoryId=(.*?)"><img border			
13	Click the  button to to close out of the ' Advanced Parameters ' window		
14	Go back to the request where the Category was hardcoded: <ul style="list-style-type: none">/jpetstore/shop/viewCategory.shtml		
15	Double-click on the ' Category ' value to open the ' Edit Request Parameter ' window		

	Steps to Perform	Transactions	Application
16	Click on the  button to get to the list of variables to choose from and select 'Extracted_Category'		
17	Click the  button twice to complete the variable pick		
NeoLoad should look like this:			
			
18	Do the same steps (5-17) for the 'Select Product' , 'Select Item' and 'Add to Cart' transactions and handle the values of:		
	<ul style="list-style-type: none">• 'Extracted_productId'• 'Extracted_itemId'	<div></div> <div></div>	
Next, we will create a new Variable for the UserID and Password login for JPetStore			
19	Create a new variable....Click the 'Variables'  icon, at the top of the NeoLoad window, to launch the 'Edit variables' window		
20	Click the  button (on the bottom left part of the window) to create a new variable.		
21	Select 'List' as the type of variable to add. Name the list variable: 'Address'.		

	Steps to Perform	Transactions	Application															
22	<div>Add three (3) columns: ‘City’, ‘State’ and ‘Zip Code’ then add four (4) rows with the following data:<ul style="list-style-type: none">Boston, MA, 02134Random Lake, WI, 53075Beverly Hills, CA, 90210Echo, OR, 97826</div> <table><tr><td>City</td><td>State</td><td>Zip Code</td></tr><tr><td>Boston</td><td>MA</td><td>02134</td></tr><tr><td>Random L...</td><td>WI</td><td>53075</td></tr><tr><td>Beverly Hills</td><td>CA</td><td>90210</td></tr><tr><td>Echo</td><td>OR</td><td>97826</td></tr></table>	City	State	Zip Code	Boston	MA	02134	Random L...	WI	53075	Beverly Hills	CA	90210	Echo	OR	97826		
City	State	Zip Code																
Boston	MA	02134																
Random L...	WI	53075																
Beverly Hills	CA	90210																
Echo	OR	97826																
23	Click the <input type="button" value="OK"/> button to complete the creation of the variable																	
24	Click the <input type="button" value="Apply"/> and the <input type="button" value="OK"/> buttons to save the variable																	
25	Open the ‘Payment Details’ transaction and click the request with the payment details <ul style="list-style-type: none">/jpetstore/shop/newOrder.shtml																	
Change ‘order.billCity’ , ‘order.billstate’ and ‘order.billZip’ fields by double-clicking to open the ‘Edit Request Parameter’ window																		
26	Double-click on the value ‘Palo Alto’ field to open the ‘Edit Request Parameter’ window																	
27	Click on the <input type="button" value="..."/> button to get to the list of variables to choose from and select ‘Address.City’ and do this for ‘orderbillState’ value ‘CA’ and ‘order.billZip’ value ‘94303’																	

	Steps to Perform	Transactions	Application																												
	<div>The request should now look like this:</div> <table><tr><th>Name</th><th>Value</th></tr><tr><td>order.cardType</td><td>Visa</td></tr><tr><td>order.creditCard</td><td>999 9999 9999 9999</td></tr><tr><td>order.expiryDate</td><td>12/03</td></tr><tr><td>order.billToFirstName</td><td>ABC</td></tr><tr><td>order.billToLastName</td><td>XYX</td></tr><tr><td>order.billAddress1</td><td>901 San Antonio Road</td></tr><tr><td>order.billAddress2</td><td>MS UCUP02-206</td></tr><tr><td>order.billCity</td><td>\${Address.City}</td></tr><tr><td>order.billState</td><td>\${Address.State}</td></tr><tr><td>order.billZip</td><td>\${Address.Zip Code}</td></tr><tr><td>order.billCountry</td><td>USA</td></tr><tr><td>x</td><td>38</td></tr><tr><td>y</td><td>9</td></tr></table>	Name	Value	order.cardType	Visa	order.creditCard	999 9999 9999 9999	order.expiryDate	12/03	order.billToFirstName	ABC	order.billToLastName	XYX	order.billAddress1	901 San Antonio Road	order.billAddress2	MS UCUP02-206	order.billCity	\${Address.City}	order.billState	\${Address.State}	order.billZip	\${Address.Zip Code}	order.billCountry	USA	x	38	y	9		
Name	Value																														
order.cardType	Visa																														
order.creditCard	999 9999 9999 9999																														
order.expiryDate	12/03																														
order.billToFirstName	ABC																														
order.billToLastName	XYX																														
order.billAddress1	901 San Antonio Road																														
order.billAddress2	MS UCUP02-206																														
order.billCity	\${Address.City}																														
order.billState	\${Address.State}																														
order.billZip	\${Address.Zip Code}																														
order.billCountry	USA																														
x	38																														
y	9																														
	Make sure you have downloaded the ‘Download user list’ from the training site for use in this exercise																														
	We will change the login for JPetStore to come from a file that contains user ids and passwords																														
28	To add new users, click the ‘Variables’  icon to launch the ‘Edit variables’ window																														
29	Click the  button to create a new variable. Select ‘File’ as the type of variable to add. Name the list variable ‘Users’.																														



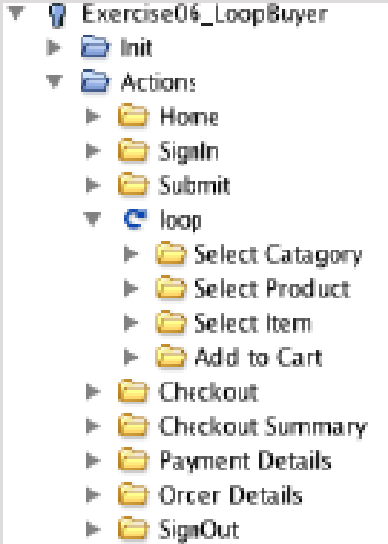
	Steps to Perform	Transactions	Application																		
30	Click on the  button to find and load the 'users.csv' that you downloaded earlier																				
31	Click the 'Use first line in file as column headings?' <div><div><div><div><input checked="" type="checkbox"/></div><div>Use first line in file as column headings?</div></div><table><tr><th>Username</th><th>Password</th></tr><tr><td>user1</td><td>pass1</td></tr><tr><td>user2</td><td>pass2</td></tr><tr><td>user3</td><td>pass3</td></tr><tr><td>user4</td><td>pass4</td></tr><tr><td>user5</td><td>pass5</td></tr><tr><td>user6</td><td>pass6</td></tr><tr><td>user7</td><td>pass7</td></tr><tr><td>user8</td><td>pass8</td></tr></table></div></div>	Username	Password	user1	pass1	user2	pass2	user3	pass3	user4	pass4	user5	pass5	user6	pass6	user7	pass7	user8	pass8		
Username	Password																				
user1	pass1																				
user2	pass2																				
user3	pass3																				
user4	pass4																				
user5	pass5																				
user6	pass6																				
user7	pass7																				
user8	pass8																				
32	Click the 'For each Virtual User instance'  For each Virtual User instance to have each VU have a different UserID/PW																				
33	Click the  button to complete the creation of the new variable																				
34	Click the  button to accept the changes and then the  button																				
35	Go to the request <ul style="list-style-type: none">“Submit” Transaction<ul style="list-style-type: none">'/jpetstore/shop/signonForm.shtml' request	<table><tr><th>Name</th><th>Value</th></tr><tr><td>username</td><td>j2ee</td></tr><tr><td>password</td><td>\${AutoPassword_1}</td></tr><tr><td>x</td><td>30</td></tr><tr><td>y</td><td>13</td></tr></table>	Name	Value	username	j2ee	password	\${AutoPassword_1}	x	30	y	13									
Name	Value																				
username	j2ee																				
password	\${AutoPassword_1}																				
x	30																				
y	13																				



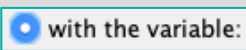

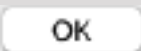

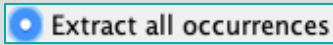
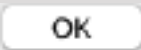
	Steps to Perform	Transactions	Application
Change the 'Username' value and the 'password' value to be pushed by the new variable 'Users'			
36	Double-click on the 'username' value field ('j2ee') to open the 'Edit Request Parameter' window		
37	Click on the  button to get to the list of variables to choose from and select 'Users.Username' from the variable list.		
38	Click the  button to complete the substitution of the new variable		
39	Do steps #36-38 for the 'password' value field as well		
40	Click the 'Save'  button to save your work		
41	Click the  (Check a user path) button to check the validity of the 'Exercise 05 - Buyer' User Path		
On the 'Check the User Path validity' window, select the 'Variables' tab to validate that the data you manipulated has been handled			
			








Exercise 6




After completing this exercise, you will be able to:

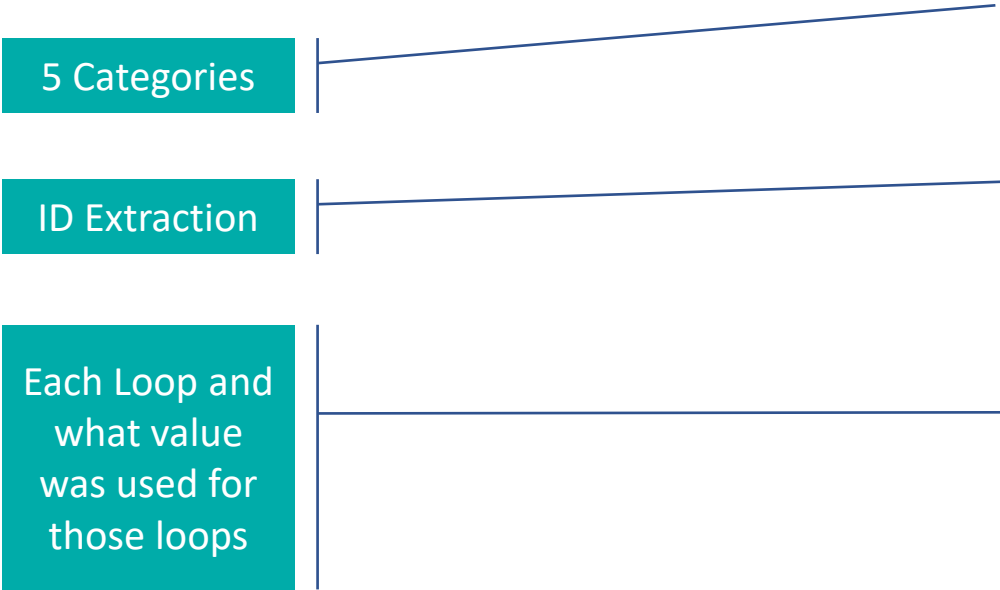
- Use the NeoLoad variables
- Handling an array
- How to concatenate variables
- Use of loop and while

	Steps to Perform	Transactions	Application
We are going to modify the 'LoopBuyer' in order to choose a pet from each category.			
1	Duplicate the 'Exercise 05 - Buyer' User Path name this one 'Exercise 06 - LoopBuyer'		
2	Add a 'Loop' action  to the User Path by either dragging it up or right-clicking. Put the new loop just above the 'Select Category' transaction		
3	Now move the 'Select Category', 'Select Product', 'Select Item' and 'Add to Cart' transactions into the loop		
<p>The User Path should now look like this:</p> 			

	Steps to Perform	Transactions	Application
We now need to change the Variable Extraction that was done for the 'Category' to extract all occurrences to build an array. But we will use the 'Flag' feature to search for variable 'Extracted_Catagory'			
4	Click the  (Flag Requests) feature and select the 'with the variable'  option		
5	Uncheck the option 'used in request' since we want to just search in responses		
6	Use the  picker button and select the 'Extracted_Category' from the list of variables		
7	Click the  button to complete adding the variable		
A blue checkmark should be on the User Path 'Submit' identifying where, in a response, the extraction was done <ul style="list-style-type: none">• /jpetstore/shop/signonForm.shtml			
8	On this request, click the  Advanced button to get to the 'Variable Extraction' tab		
9	On the 'Variable Extraction', double-click the Variable Name 'Extracted_Category' to open it		
10	Click the 'Extract all occurrences'  radio button on the Variable Extractor window. You should now see the 'Test' field state: [FISH,DOGS,REPTILES,CATS,BIRDS]		
Doing this tells NeoLoad to build an array of values it finds no matter the size of the array			
11	Click the  button twice to complete the creation of the variable extraction		

	Steps to Perform	Transactions	Application
We now need to tell the 'loop' to pick from the array that was just created			
12	Click the 'loop'  action, in the User Path, and change the 'Execute loop' to the array		
13	Click on the  button to get to the list of variables and choose 'Extracted_Catagory_matchNr' and click the 'OK'  button		
The field should now look like the following:			
<div><div>Settings</div><div>Execute loop <input type="text" value="racted_Category_matchNr"/>  times.</div></div>			
Now we need to change how NeoLoad handles the Category ID and make it loop as many times as the total number of categories. Here we will concatenate two variables together.			
14	Go to the request: <ul style="list-style-type: none">• "Select Category" Transaction<ul style="list-style-type: none">• /jpetstore/shop/viewCategory.shtml		
15	Double-click the 'categoryId' value '\${Extracted_Category}' and change the expression to be: <ul style="list-style-type: none">• '\${Extracted_Category}_\${loop_counter}' <div><div><div><div></div><div>Use an expression.</div></div><div>The expression may contain static text and variables. The variable syntax i...</div><div>Expression: <input type="text" value="\${Extracted_Category}_\${loop_counter}"/> </div></div></div> <ul style="list-style-type: none">• A 'loop_counter' variable is created automatically when a Loop is added to a User Path		

	Steps to Perform	Transactions	Application
16	Click the  button to complete changing the variable		
17	Click the  (Check a user path) button to check the validity of the 'LoopBuyer' User Path		
18	On the 'Check the User Path validity' window, select the name of the User Path 'Exercise 06 - LoopBuyer' and you should see the results		





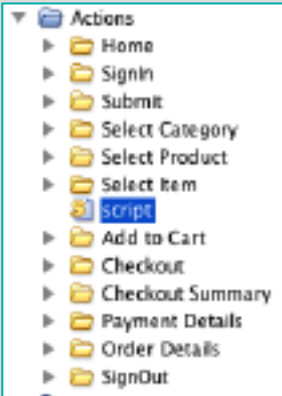
Finished



Variables extracted during validation:	
Name	Value
Extracted_Catagory_matchNr	5
Extracted_Catagory_1	FISH
Extracted_Catagory_2	DOGS
Extracted_Catagory_3	REPTILES
Extracted_Catagory_rand	REPTILES
Extracted_Catagory_4	CATS
Extracted_Catagory_5	BIRDS
Extracted_ID	1539783384071
loop_counter	1
loop_counter	1
Extracted_Product	FI-SW-01
Extracted_Item	EST-1
loop_counter	2
Extracted_Product	K9-BD-01
Extracted_Item	EST-7
loop_counter	3
Extracted_Product	RP-SN-01
Extracted_Item	EST-11
loop_counter	4
Extracted_Product	FL-DLH-02
Extracted_Item	EST-17
loop_counter	5
Extracted_Product	AV-SB-02
Extracted_Item	EST-19

Exercise 7

After completing this exercise, you will be able to:

- Use of a JavaScript action within a User Path
- Writing information out to the logger





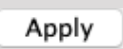
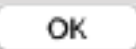
	Steps to Perform	Transactions	Application
1	Duplicate the 'Exercise 05 - Buyer' User Path name it 'Exercise 07 - JS_Buyer'		
We are going to insert a JavaScript action which will log an entry every time an item is added to the shopping cart			
2	Add a 'JavaScript' action  JavaScript to the User Path by either dragging it up or right-clicking. Put the new action just above the 'Add to Cart' transaction		
The User Path should now look like this:			
			
NeoLoad has some sample code already established for you to take advantage of but also there is an extensible library in the NeoLoad documentation for ways to utilize JS together with NeoLoad:			
<ul style="list-style-type: none">https://documentation.tricentis.com/neoload/latest/en/WebHelp/#985.htm			








	Steps to Perform	Transactions
3	<div><p>Edit the JavaScript to handle logging:</p><ul style="list-style-type: none">• make sure variables are spell checked. Compiler is case sensitive• Look in the "logs" tab on the User Check Path for output from the script</div> <div><pre>// Javascript skeleton. // Edit and adapt to your needs. // The documentation of the NeoLoad Javascript API // is available in the appendix of the documentation. // Get variable value from VariableManager var category = context.variableManager.getValue("Extracted_Category"); var product = context.variableManager.getValue("Extracted_productId"); var item = context.variableManager.getValue("Extracted_itemId"); if (item==null) { context.fail("Variable 'item' not found"); } // Do some computation using the methods // you defined in the JS Library logger.debug("Picked a: "+category+" The product is: "+product+" The Item picked: "+item+" The LG used: "+context.currentLG.name);</pre></div> <div><p>Note: your variable names might differ from the variables referenced in the example JavaScript. Be sure to verify/update variable names before running a user path check</p></div>	
4	Click the ‘Save’  button to save your work	
5	Click the  (Check a user path) button to check the validity of the ‘Exercise 07 - JS_Buyer’ User Path	






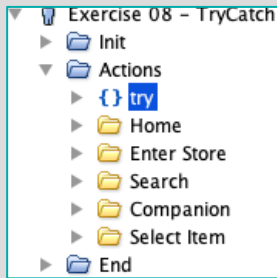



Exercise 8




After completing this exercise, you will be able to:


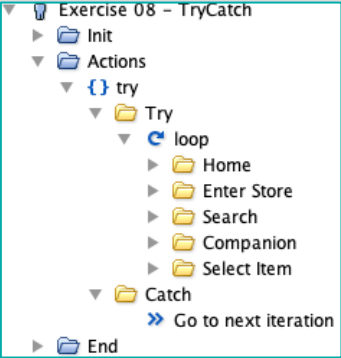

- Setup error management for validating data
- Using think-times for pages


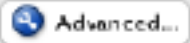






	Steps to Perform	Transactions	Application
1	Duplicate the 'Exercise 02 - Searcher' User Path and rename it 'Exercise 08 - TryCatch'		
We will change the search criteria from 'Amazon Parrot' to be pulled from a list variable			
2	Create a new variable....Click the 'Variables'  icon to launch the 'Edit variables' window		
3	Click the  button (on the bottom left part of the window) to create a new variable. Select 'List' as the type of variable to add. Name the list variable: 'Pets'.		
4	Add one (1) column: named 'Category' and add four (4) rows with the following data: <ul style="list-style-type: none"> • Goldfish • Bulldog • Iguana • Manx 		
5	Click the  button to complete the creation of the variable		
6	Click the  button to accept the changes and then the  button		
7	Open the 'Search' transaction and click the request with the search keyword of 'Amazon Parrot' <ul style="list-style-type: none"> • /jpetstore/shop/searchProducts.shtml 		
8	Change 'Amazon Parrot' field by double-clicking to open the 'Edit Request Parameter' window		


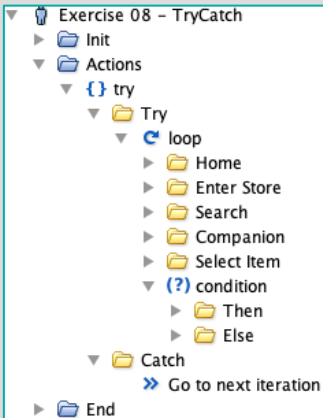
	Steps to Perform	Transactions	Application				
9	Click on the  button to get to the list of variables to choose from and select ‘Pets.Catagory’						
10	Click the  button to complete the creation of the variable	<table><tr><td>Name</td><td>Value</td></tr><tr><td>keyword</td><td>\${Pets.Catagory}</td></tr></table>		Name	Value	keyword	\${Pets.Catagory}
Name	Value						
keyword	\${Pets.Catagory}						
Let’s now add a ‘Validation’ to verify that the ‘Add to Cart’ button appears on the page during the order							
11	Use the  (Flag Requests) feature which will then identify a response in the tree, which will then identify matching responses in the tree with a blue checkmark.						
12	Select the following radio button and enter ‘add_to_cart’	<input checked="" type="radio"/> whose recorded response contains: <input type="text" value="add_to_cart"/>					
Several pages will be flagged as containing this button and that we are going to use the "viewItem" page because that is the page we want to verify - not the others:							
<ul style="list-style-type: none">• ‘Select Item’ transaction<ul style="list-style-type: none">• /jpetstore/shop/viewItem.shtml							
13	On this request, click the  button to launch the ‘Response Validation’ window						
14	Click the  button to add a new validation record and name it ‘Add to Cart’						
15	Click the  button to launch the response and in the find field, put						



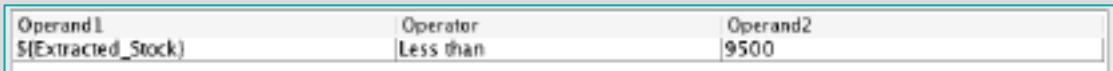

	Steps to Perform	Transactions	Application
16	Enter 'add_to_cart' into the 'Find' field 		
17	Highlight the text 'button_add_to_cart.gif' and click the  button to select this value		
18	Click the  button to accept the additions		
Now let's add a 'Try...Catch' action to to tell NeoLoad to check that if it receives an error do an alternate flow			
19	Add a 'Try...Catch' action  to the User Path by either dragging it up or right-clicking. Put the new action at the to level within the 'Actions' folder.		
20	Click the  action and make sure both settings are selected:		
21	Open the  action and put all of the transactions in the 'Try' transaction		


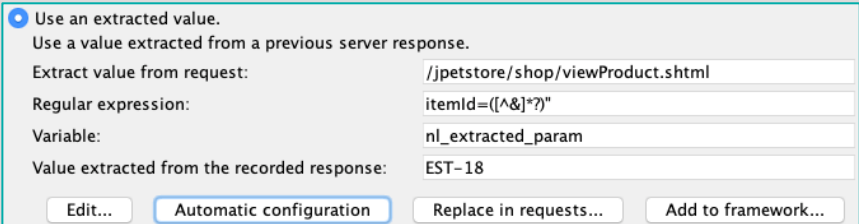

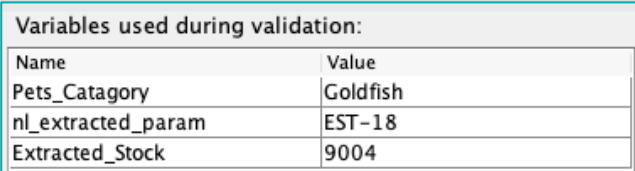
	Steps to Perform	Transactions	Application
	<p>User Path should look like the following:</p> <div><div>Exercise 08 - TryCatch</div><div><div>Init</div><div>Actions</div><div><div>try</div><div><div>Try</div><div><div>Home</div><div>Enter Store</div><div>Search</div><div>Companion</div><div>Select Item</div><div>Catch</div></div></div><div>End</div></div></div></div>		
	<p>Now, if it's proven that the Add to Cart button doesn't exist we will have NeoLoad catch and stop the test</p>		
22	<p>Add a 'Go to next iteration' action  Go to next iteration to the User Path by either dragging it up or right-clicking. Put the new action in the 'Catch' transaction</p>		
	<p>We will now add a 'Loop' action to include several searches between 1 and 4 searches</p>		
23	<p>Add a 'Loop' action  Loop to the User Path by either dragging it up or right-clicking.</p>		
24	<p>Put the new loop just above the 'Home' transaction and put all the transactions in the 'Try' folder into this new loop</p>		

	Steps to Perform	Transactions	Application
25	Make the loop number = 4 (this is the amount of pets in the list variable we created)		
User Path should look like the following:			
			
The last step is to stop the user if the stock of an item falls below 9500 with a conditional <If Statement>			
26	Add a 'If...Then...Else' action (?) If...Then...Else to the User Path by either dragging it up or right-clicking. Put the new action underneath the 'Select Item' transaction		
Since 'If...Then...Else' is a conditional action we need to grab the conditional compare value: Stock			
27	Use the  (Flag Requests) feature to look for a response that contains: 'stock'		

	Steps to Perform	Transactions	Application
	<p>We are going to use the page that's flagged:</p> <ul style="list-style-type: none"> • 'Select Item' transaction • /jpetstore/shop/viewItem.shtml 		
28	Click the 'Advanced'  button to see the 'Advanced Parameters' of the page		
29	Click the 'Variable extractors' tab and click the 'Add'  button		
30	Name this extraction 'Extracted_Stock' and click the 'Text Picker'  button in the 'Starting with' section of this window		
31	On the 'Response text picker' window, type 'stock' into the 'Find' field and NeoLoad should highlight the value in the response section of the window: <ul style="list-style-type: none"> • <code>9012 in stock.</code> 		
32	Select the left boundary of the value: <code></code> and click the  button		
33	Click the 'Text Picker'  button in the 'Ending with' section		
34	Select the left boundary of the value: <code>in stock.<</code> and click the  button		
35	Click the  button to complete the creation of the variable extraction		

	Steps to Perform	Transactions	Application						
	NeoLoad has automatically created the Regular Extraction:	<div>Variable extractors</div> <div>Extract a variable from response content</div> <table><tr><th>Variable Name</th><th>Regular Expression</th><th>Template</th></tr><tr><td>Extracted_Stock</td><td>(.*?) in stock</td><td>\$1\$</td></tr></table>	Variable Name	Regular Expression	Template	Extracted_Stock	(.*?) in stock	\$1\$	
Variable Name	Regular Expression	Template							
Extracted_Stock	(.*?) in stock	\$1\$							
	Now we will create another logical action (If...Then...Else) that will check that if the 'Stock' drops below '9500' then stop the User Path								
36	Add a 'If...Then...Else' action (?) If...Then...Else to the User Path by either dragging it up or right-clicking. Put the new action after the 'Select Item' folder.								
	User Path should look like the following: <div></div>								
37	Single-click on the 'If...Then...Else' (?) If...Then...Else action name								









	Steps to Perform	Transactions	Application
38	Double-click on the 'Operand1' field to get the picker  button to get to the list of variables and select 'Extracted_Stock'		
39	Change the 'Operator' field to be equal to 'Less than'		
40	Change the 'Operand2' field to be '9500'		
Data should look like: 			
Next we need to add an action into the 'Then' folder to stop the test			
41	Add a 'Stop'  Stop action into the User Path by either dragging it up or right-clicking. Put the new action into the 'Then' folder.		
Another fix we need to make is that the 'Itemid' is hardcoded and needs to be variablized			
42	Go to the following request: <ul style="list-style-type: none">• 'Select Item' transaction<ul style="list-style-type: none">• /jpetstore/shop/viewItem.shtml		
43	Double-click on the 'Itemid' value to get the 'Edit Request Parameter' window		







	Steps to Perform	Transactions	Application
44	Click the 'Use an extracted value' radio button <input checked="" type="radio"/> Use an extracted value.		
45	Click the 'Automatic configuration' <input type="button" value="Automatic configuration"/> button to have NeoLoad automatically create the variable extraction		
The window should look like the following:			
46	Click the <input type="button" value="OK"/> button to complete the creation of the variable extraction		
47	Save the project		
48	Click the  (Check a user path) button to check the validity of the 'Exercise 08 - TryCatch' User Path		
Here you can see since it ran a Goldfish, the stock was below 9500 so the test stopped			

Exercise 9

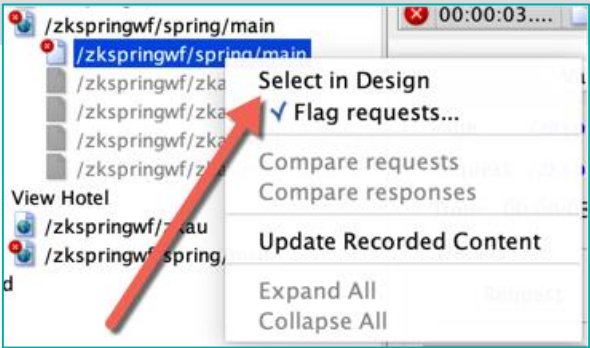
After completing this exercise, you will be able to:


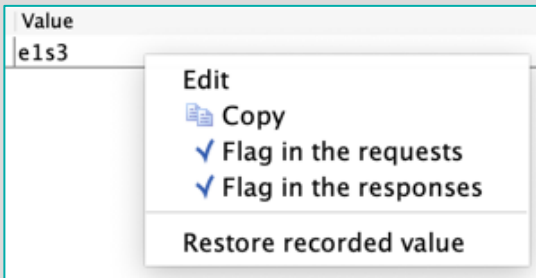


- Better understanding of finding root-cause of errors
- Building and using frameworks






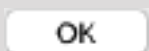

	Steps to Perform	Transactions	Application
1	Start a Recording. Click the record  button		
2	Name the User Path 'Exercise 09 - HotelBooking'		
3	Pick the browser type you are going to use for recording and click OK. If you get a pop-up asking you to close your browser, then close it before recording.		
Make sure you have copied the Hotel Booking URL to your clipboard (http://training.local:8080/zkspringwf)			
4	Paste the URL in the browser and launch the Hotel Booking application	Home	
5	Click the 'Start your Spring Travel experience' link on the bottom right	Start	
6	Click the 'Find Hotels'  button	Find Hotels	
7	Click the 'View Hotel'  link on any of the hotels in the list	View Hotel	
8	Stop the recording 		
9	Click the 'Finish'  button on the Post-Recording Wizard		
10	Click the  (Check a user path) button to check the validity of why this might have failed the test		



	Steps to Perform	Transactions	Application
	<p>The following parameters need to be handled:</p> <ul style="list-style-type: none">• dtid• execution• uuid_0 (for the 'Find Hotels'  button)• uuid_0 (for the 'View Hotel'  link)		
11	On the Check user path window, locate the request with the HTTP 500 error by clicking on the small red icon  in the upper right of the window		
12	Click the 'Open in browser'  button, on the 'Details' tab to see what the error is referring to		
The error states: 'A problem occurred restoring the flow execution with key 'e1s3' We will find the cause of this error			
13	Right-click on the failed request, in the tree window, and select the option 'Select in Design' to go back to the Controller		

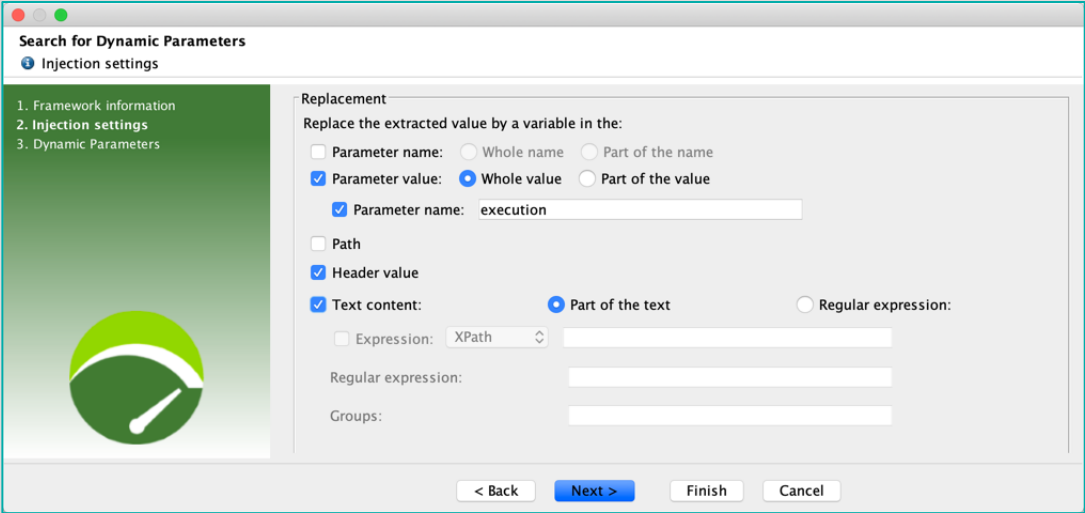


Next Page





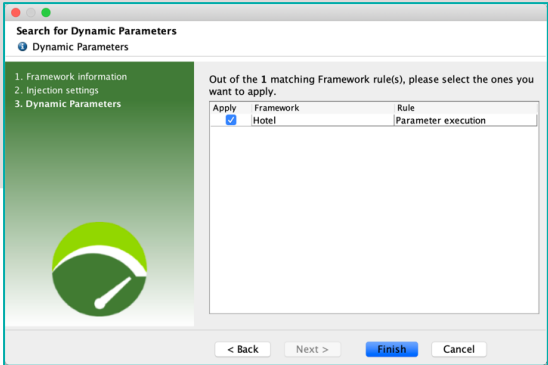
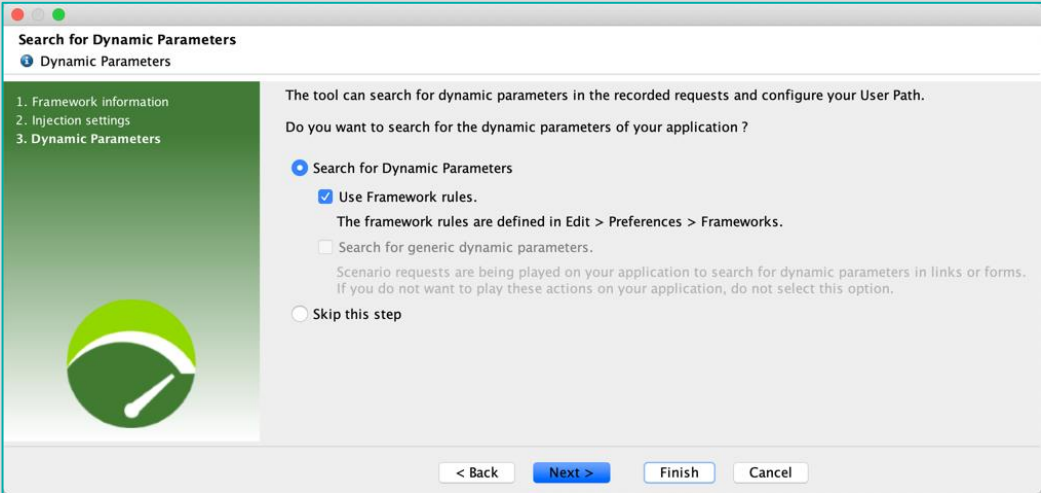
	Steps to Perform	Transactions	Application
14	As you can see, there is an 'execution' value (e1s3) which matches what the error was stating is invalid		
We will extract this value and build a framework for it			
15	Right-click on the execution value 'e1s3' and select 'Copy' to copy to your clipboard		
16	Right-click on the execution value 'e1s3' and select 'Flag in the Responses' which will then identify a response, in the tree, with a blue check-mark. This is the response where the execution value resides		
17	Go to the request that has the blue check-mark on it: <ul style="list-style-type: none">• "Find Hotels" Transaction<ul style="list-style-type: none">• '/zkspringwf/zkau' request		
18	Click the 'Advanced'  button to see the 'Advanced Parameters' of the page		
19	Click the 'Variable extractors' tab and click the 'Add' button 		





	Steps to Perform	Transactions	Application
20	Name this extraction ' Extracted_execution ' and click the ' Text Picker '  button in the 'Starting with' section		
21	Select the left boundary of the value: execution= and click the  button		
22	Click the ' Text Picker '  button in the ' Ending with ' section		
23	Select the right boundary of the value: " and click the  button		
24	Click the  button to complete the creation of the variable extraction		
NeoLoad has automatically created the Regular Expression: execution=(.*?)			
25	Single-click on the new variable name and click the ' Move as a framework parameter '  button		





	Steps to Perform	Transactions	Application
	<p>NeoLoad will launch the ‘Search for Dynamic Parameters’ wizard which is used to create frameworks</p> <div><div><div>1. Framework information</div><div>2. Injection settings</div><div>3. Dynamic Parameters</div></div><div><p>Converts this Variable Extractor into a framework extractor. This way, the same parameter can be searched in other requests and the extraction/replacement is automatically configured.</p><p>After updating a specific framework extractor, you should search for dynamic parameters in the User Path.</p><p>Parameter name: <input type="text" value="execution"/></p><p>Framework name:</p><p><input checked="" type="radio"/> Existing: <input type="text" value=".NET"/></p><p><input type="radio"/> New: <input type="text"/></p><p>< Back Next > Finish Cancel</p></div></div>		
26	Leave the ‘Parameter name’ as the default (‘execution’) but click the ‘New’ radio button to add a new framework		
27	Add a new framework with the name: ‘Hotel’ and click the ‘Next’  button to continue		
28	At step #2 of the framework wizard (‘Injection Settings’) click the ‘Text content’ option if it’s not already selected. This will allow NeoLoad to also search for values in the text content of a response.		






	Steps to Perform	Transactions	Application
29	Leave the 'Header value' option selected as well since this is the default for this value		
	<div>Window should look like this :</div> 		
30	Click the 'Next'  button to continue		
<p>Step #3 of the 'Search for Dynamic Parameters' wizard is the same window that comes up after a recording is finished....this is where NeoLoad will search a User Path for values that match the frameworks that were defined.</p>			

	Steps to Perform	Transactions	Application
31	Leave all the defaults for this step ('3. Dynamic Parameters')		
32	Click the 'Next'  button to continue		
33	After NeoLoad searches the User Path, a match will be found for 'Hotel' with the rule: 'Parameter execution'		



	Steps to Perform	Transactions	Application			
34	Click on the 'Finish'  button					
35	Click the  button to continue					
36	Go to the back to the request that has the value that needed to be handled: <ul style="list-style-type: none">• "Find Hotels" Transaction• '/zkspringwf/spring/main' request					
37	Here you can see that the value 'e1s3' has been substituted with the variable '\${execution}'	<div>Request parameters:</div> <table><tr><th>Name</th><th>Value</th></tr><tr><td>execution</td><td>\${execution}</td></tr></table>		Name	Value	execution
Name	Value					
execution	\${execution}					
38	Click the  (Check a user path) button to check the validity of why this might have failed the test					
Follow steps #11 thru #32 to take care of each of the values that were identified as ones that need to be handled.						
<ol style="list-style-type: none">1. For dtid name the variable as 'Extracted_dtid'2. For uuid_0 (find) name the variable as 'Extracted_uuidFind'3. For uuid_0 (view) name the variable as 'Extracted_uuidView'						

	Steps to Perform	Transactions	Application
After all the values have been handled and the Check Virtual User test have passes, continue with the exercise			
39	Create a new recording by clicking on the record  button		
40	Name the User Path 'Exercise 09 - HotelBooking_Framework'		
Pick the browser type you are going to use for recording and click OK. If you get a pop-up asking you to close your browser, then close it before recording.			
Make sure you have copied the Hotel Booking URL to your clipboard			
41	Follow steps #4 thru #7 in recording the Hotel Booking application		
42	At the 'Post-recording Wizard', click the 'Next'  button to continue past the first step		
43	At the 'Dynamic Parameters' step, uncheck 'Search for generic dynamic parameters' option		
44	Click the 'Next'  button to continue		

	Steps to Perform	Transactions	Application															
	<div>NeoLoad should identify all of the variables that were found needed in the User Path:</div> <div><div><div><div>Post-recording Wizard</div><div>Dynamic Parameters</div><div><div>1. Hosts Selection</div><div>2. Dynamic Parameters</div><div>3. Think Time Parameter</div><div>4. Finish</div></div><div></div></div><div><div>Out of the 4 matching Framework rule(s), please select the ones you want to apply.</div><table><tr><th>Apply</th><th>Framework</th><th>Rule</th></tr><tr><td><input checked="" type="checkbox"/></td><td>Hotel</td><td>Parameter dtid</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Hotel</td><td>Parameter uuid_0</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Hotel</td><td>Parameter execution</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Hotel</td><td>Parameter Extracted_uuidView</td></tr></table></div><div><div>< Back</div><div>Next ></div><div>Finish</div><div>Cancel</div></div></div></div>	Apply	Framework	Rule	<input checked="" type="checkbox"/>	Hotel	Parameter dtid	<input checked="" type="checkbox"/>	Hotel	Parameter uuid_0	<input checked="" type="checkbox"/>	Hotel	Parameter execution	<input checked="" type="checkbox"/>	Hotel	Parameter Extracted_uuidView		
Apply	Framework	Rule																
<input checked="" type="checkbox"/>	Hotel	Parameter dtid																
<input checked="" type="checkbox"/>	Hotel	Parameter uuid_0																
<input checked="" type="checkbox"/>	Hotel	Parameter execution																
<input checked="" type="checkbox"/>	Hotel	Parameter Extracted_uuidView																
45	Click the 'Next'  button to continue																	
46	Click the 'Finish'  button on the Post-Recording Wizard																	
47	Click the  (Check a user path) button to check the validity of the User Path																	



	Steps to Perform	Transactions	Application
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The Check should pass since all of the parameters have been handled by the framework

48

On the ‘Check the User Path validity’ window, select the name of the User Path ‘Exercise 09 - HotelBooking_Framework’ and you should see the results listed here ----->

Check the User Path validity

Select the User Path to check

User Path: Exercise 09 - HotelBookin... Start checking Flag requests... Advanced... The User Path Exercise 09 - HotelBooking_Framework is valid.

Exercise 09 - HotelBooking_Frame

Init

Actions

Home

zkspringwf

zkspringwf/spring/intro

Start

zkspringwf/spring/mair

Find Hotels

zkspringwf/zkau

zkspringwf/spring/mair

View Hotel

zkspringwf/zkau

zkspringwf/spring/mair

End

Time	Action	Response ...	Assertions	Difference
00:00:00...	Exercise 09 - HotelBooking_Framework			
00:00:00...	Init			
00:00:00...	Actions			
00:00:00...	Home			
00:00:00...	zkspringwf			
00:00:00...	zkspringwf	302		
00:00:00...	zkspringwf/	200		0%
00:00:00...	zkspringwf/spring/mair			

Details

Variables

Servers

HTML rendering

Recorded HTML rendering

Variables used during validation:

Name	Value
dtid	z_bq4
uuid_0	kjxPf0
execution	e1s3
execution	e1s3
execution	e1s3
dtid	z_cq4
Extracted_uuidView	jKyPg0
execution	e1s3
execution-1	e1s5
execution	e1s3

Variables extracted during validation:


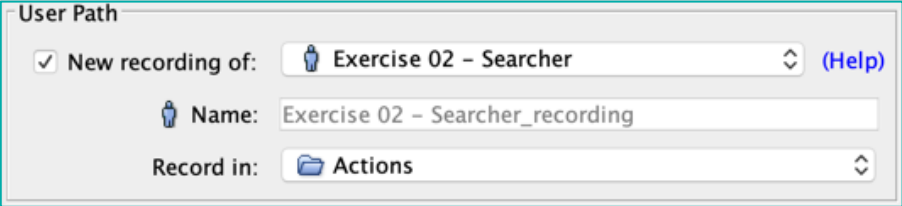
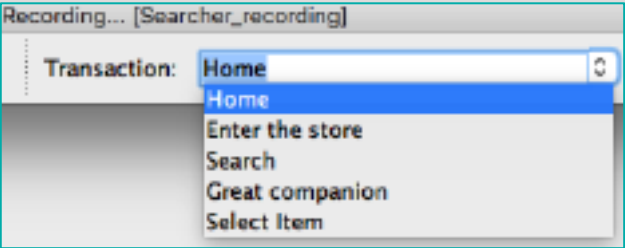
Name	Value
dtid	z_bq4
uuid_0	kjxPf0
execution	e1s3
dtid	z_cq4
Extracted_uuidView	jKyPg0
execution-1	e1s5





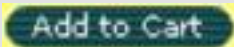



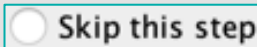

Close


Exercise 10


After completing this exercise, you will be able to:

- How to use NeoLoad's User Path Update feature for Agile development cycles

	Steps to Perform	Transactions	Application
1	Start a Recording. Click the record ● button.		
2	In the 'Start Recording' window, select the option of 'New recording of:' and pick the 'Exercise 08 - TryCatch' User Path from the drop-down list		
	Pick the browser type you are going to use for recording and click 'OK'. If you get a pop-up asking you to close your browser, then close it before recording.		
	Notice how NeoLoad has pre-filled the transaction names based on the "Exercise 08 - TryCatch' User Path		
3	Move thru recording JPetStore, using the prefilled transactions with 'Rattlesnake' for you search criteria		

	Steps to Perform	Transactions	Application										
4	Click 'Doubles as a watch dog' link	Companion											
	<table border="1"><tr><td></td><td></td><td>Product ID</td><td>Name</td></tr><tr><td></td><td></td><td>RP-SN-01</td><td>Rattlesnake</td></tr><tr><td colspan="2">Doubles as a watch dog</td><td></td><td></td></tr></table>					Product ID	Name			RP-SN-01	Rattlesnake	Doubles as a watch dog	
		Product ID	Name										
		RP-SN-01	Rattlesnake										
Doubles as a watch dog													
5	Click one of the 'Item ID' selections	Select Item											
After recording the 'Select Item' step we are going to add new functionality to the new recording													
6	Click the 'Add to Cart'  button on one of the snakes	Add to Cart											
7	Stop the recording 												
8	At the 'Post-Recording Wizard', click the 'Next'  button on step #1												
9	Select the 'Skip this step'  option on step #2 of the 'Post-Recording Wizard'												
10	Click the 'Next'  button												



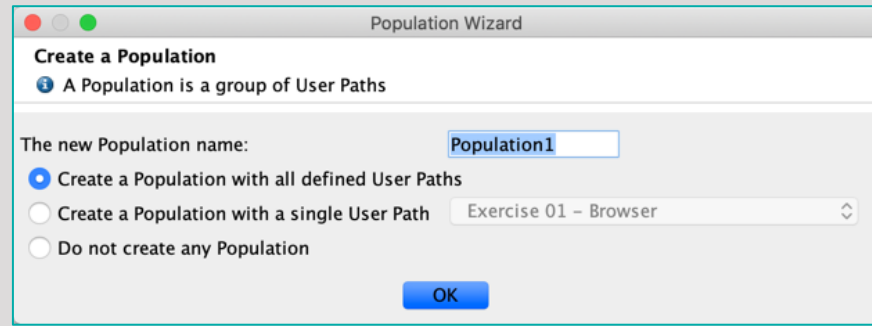

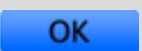

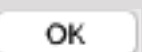
	Steps to Perform	Transactions	Application
11	Click the 'Next' Next > button on step #3		
NeoLoad displays the updates that will be made to the new User Path based on feedback from the old User Path		<div>Verify the update suggested and if necessary 78% of matches Matching threshold 60</div> <div><div>Exercise 08 - TryCatch</div><div>Init</div><div>Actions</div><div>try</div><div>Try</div><div>loop</div><div>Home</div><div>Enter Store</div><div>Search</div><div>Companion</div><div>Select Item</div><div>Add to Cart</div><div>(?) condition</div><div>Catch</div><div>End</div></div>	
12	Expand the 'Add to Cart' folder and you will see all the requests that will be added to the new User Path		
13	Click the 'Next' Next > button on step #4		
14	Click the 'Next' Next > button on step #5		













	Steps to Perform	Transactions	Application	
	<div>NeoLoad now displays the summary of all the change that were accomplished by the update</div> <div><div>The User Path Exercise 08 – TryCatch will be updated on Finish.</div><div>Original User Path : renamed to Exercise 08 – TryCatch_old</div><div>Recording : deleted</div><div><div>Logs</div><div>Logging level: INFO <div>Copy to Clipboard</div></div><div>INFO – 2019/07/19 11:25:32 – Start the update of Exercise 08 – TryCatch:<ul style="list-style-type: none">– Original User Path: renamed to Exercise 08 – TryCatch_old– Recording: deleted– 78% of matches– 13 element(s) deleted– 9 element(s) insertedINFO – Variable extractor "nl_extracted_param" inserted in the parameter "itemId" in "Actions/try/Try/loop/Select</div></div></div>			
15	Select ‘ DEBUG ’ as the logging level to see all of the steps done	Logging level: <div>DEBUG</div>		
16	At the ‘ Post-Recording Wizard ’, click the ‘ Finish ’ <div>Finish</div> button on step #6			
The new User Path has taken the name ‘Exercise 08 - TryCatch’ and the old User Path name has been changed to ‘Exercise 08 – TryCatch_old’ so that you can always go back to the original				
17	Open the ‘Exercise 08 - TryCatch’ User Path to see the addition of the ‘ Add to Cart ’ transaction			


Exercise 11

After completing this exercise, you will be able to:

- Using populations for:
 - Browser Emulation
 - Network Virtualization
 - Cache handling

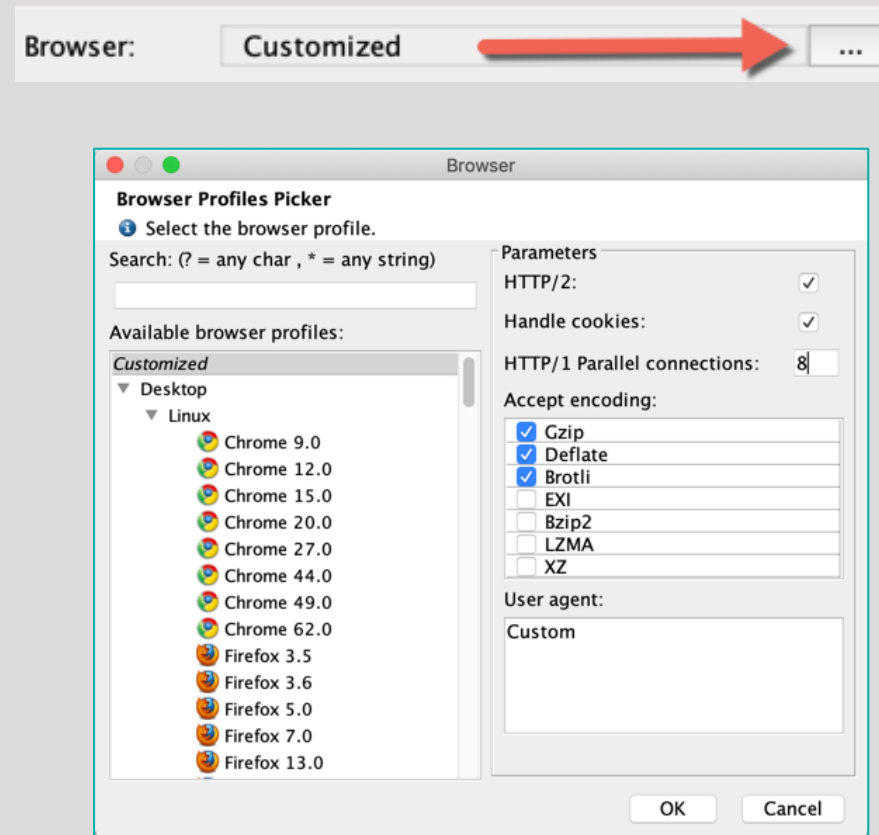
	Steps to Perform	Transactions	Application
1	Click the 'Populations'  Populations tab that we will be using to create a new population		
2	You will be presented with the 'Population Wizard' Which can be used to create the initial population <div data-bbox="1223 392 2089 714">  <p>The dialog box 'Population Wizard' has the title 'Population Wizard'. It contains a section 'Create a Population' with a sub-header 'A Population is a group of User Paths'. Below this, it asks 'The new Population name:' with a text field containing 'Population1'. There are three radio button options: 'Create a Population with all defined User Paths' (which is selected), 'Create a Population with a single User Path' (with a dropdown menu showing 'Exercise 01 - Browser'), and 'Do not create any Population'. An 'OK' button is at the bottom right.</p> </div>		
3	Click the 'Do not create any Population' option  Do not create any Population		
4	Click the 'OK'  button on the 'Population Wizard' window		
5	Click the 'Add a new population'  button at the bottom-left of the NeoLoad window to add a population		
6	On the 'New Population' window, add the new name as 'PetStore'		
7	Click the 'OK'  button on the 'New Population' window		
8	Select, from the 'User Path' drop-down, the User Path 'Exercise 02 - Searcher'		

	Steps to Perform	Transactions	Application																					
Let's add another User Path to this population																								
9	Click the 'Add a new User Path'  button to add a new line to the Population collection. This button is to the far right of the NeoLoad window.																							
10	Select, from the 'User Path' drop-down, the User Path 'Exercise 05 - Buyer'	User Path:  Exercise 05 - Buyer 																						
<p>The window should look like:</p> <div><p>Definition</p><p>Name: PetStore</p><p>Description:</p><p>Content</p><p>A Population is a collection of User Paths.</p><p>Total: 100%</p><table border="1"><thead><tr><th>User Path</th><th>Percentage</th><th>Browser</th><th>Handle Cache</th><th>WAN Emulation</th><th>Download Bandwi...</th><th>Upload Bandwidth</th></tr></thead><tbody><tr><td> Exercise 02 - Searcher</td><td>100%</td><td>Recorded one</td><td>As recorded</td><td>Unlimited</td><td>Unlimited</td><td>Unlimited</td></tr><tr><td> Exercise 05 - Buyer</td><td>0%</td><td>Recorded one</td><td>As recorded</td><td>Unlimited</td><td>Unlimited</td><td>Unlimited</td></tr></tbody></table><p>Parameters</p><p>User Path:  Exercise 05 - Buyer Percent: 0 </p><p>Browser: Recorded one ... WAN Emulation: Unlimited ...</p><p>Handle cache: As recorded</p></div>				User Path	Percentage	Browser	Handle Cache	WAN Emulation	Download Bandwi...	Upload Bandwidth	 Exercise 02 - Searcher	100%	Recorded one	As recorded	Unlimited	Unlimited	Unlimited	 Exercise 05 - Buyer	0%	Recorded one	As recorded	Unlimited	Unlimited	Unlimited
User Path	Percentage	Browser	Handle Cache	WAN Emulation	Download Bandwi...	Upload Bandwidth																		
 Exercise 02 - Searcher	100%	Recorded one	As recorded	Unlimited	Unlimited	Unlimited																		
 Exercise 05 - Buyer	0%	Recorded one	As recorded	Unlimited	Unlimited	Unlimited																		

	Steps to Perform	Transactions	Application
	<p>We will now change the populations to have the following properties:</p> <ul style="list-style-type: none">• 60% of the total percentage number will be used for the 'Exercise 02 - Searcher' User Path• Set 10% of the 'Exercise 02 - Searcher' User Path to use a custom browser called 'custom' in the 'User Agent' field• Set the 'Handle cache' for the 'Exercise 02 - Searcher' User Path to be using full cache• 40% of the total percentage number will be used for the 'Exercise 05 - Buyer' User Path• Set 50% of the 'Exercise 05 - Buyer' User Path to use an iPad with a 3G connection• Set 50% remaining 'Exercise 05 - Buyer' User Path to use an Mac Chrome with a 11G WiFi connection• All Exercise 05 - Buyer' populations will be set to cache as a New User		
11	<p>To add a custom browser, click the 'Browser' pick button to open the 'Browser Profiles Picker' window</p>	<div>Browser: <div>Customized</div>...</div>	

12

On the '**Browser Profiles Picker**' window, select the '**Customized**' option and type '**Custom**' into the '**User agent**' field and set the HTTP/1 Parallel connections' to **8**











Next Page

Screen should look like:

Content

A Population is a collection of User Paths.

Total: 100%

User Path	Percentage	Browser	Handle Cache	WAN Emulation	Download B...	Upload Bandwidth
 Exercise 02 - Searcher	50%	Recorded one	Returning user	Unlimited	Unlimited	Unlimited
 Exercise 02 - Searcher	10%	Customized	Returning user	Unlimited	Unlimited	Unlimited
 Exercise 05 - Buyer	20%	 iPad	As recorded	 3G	850.0Kbps	420.0Kbps
 Exercise 05 - Buyer	20%	 Chrome 49.0	As recorded	 Wifi 802.11g	22.0Mbps	8.0Mbps





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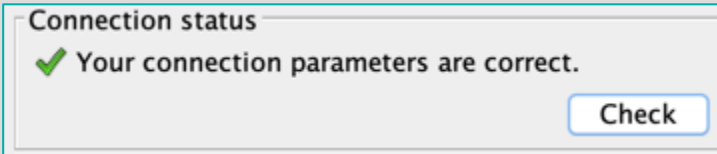

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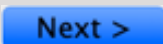


Exercise 12



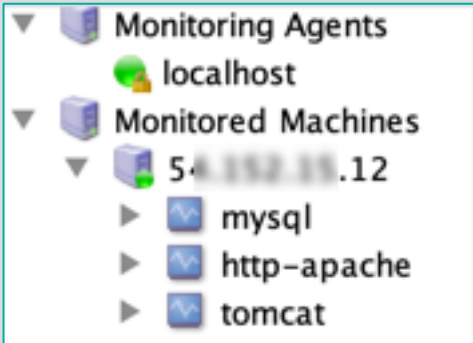
After completing this exercise, you will be able to:

- Setting up server monitoring for NeoLoad
 - MySQL
 - Apache

	Steps to Perform	Transactions	Application
1	Click the 'Monitors'  Monitors tab that we will be using to to create a connection to the application server so that we can collect server side metrics during the test		
2	Click the 'Monitored Machines'  Monitored Machines icon		
3	Click the 'Add a new monitored machine' .  New monitored machine button to open the 'Create Monitored Machine' wizard window		
To connect to the servers, we need to identify the host that will be used. This is the IP of the training site			
4	On the 'Enter host' field, enter the IP Address of the Training Site where you loaded JPetStore		
Add the following server connections: <ul style="list-style-type: none">• MySQL• Apache			
5	Select the 'MySQL Monitor' from the 'Databases' folder		

	Steps to Perform	Transactions	Application
6	Select the 'Apache Monitor' from the 'Web/EJB Tier' folder		
7	Click the 'Next'  button to continue with the wizard		
Step 2 of the wizard is to configure the 'MySQL Monitor'. The first page is informational....			
8	Click the 'Next'  button to continue with the wizard		
9	On the 'Configure MySQL Monitor' window use 'monitor' for the Login and there is no Password		
10	Click the 'Check'  button to validate connection is okay		
You should now get a successful connection 			
11	Click the 'Next'  button to continue with the wizard		


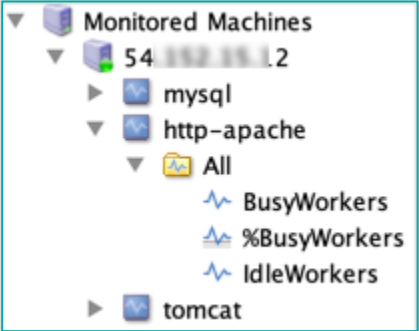

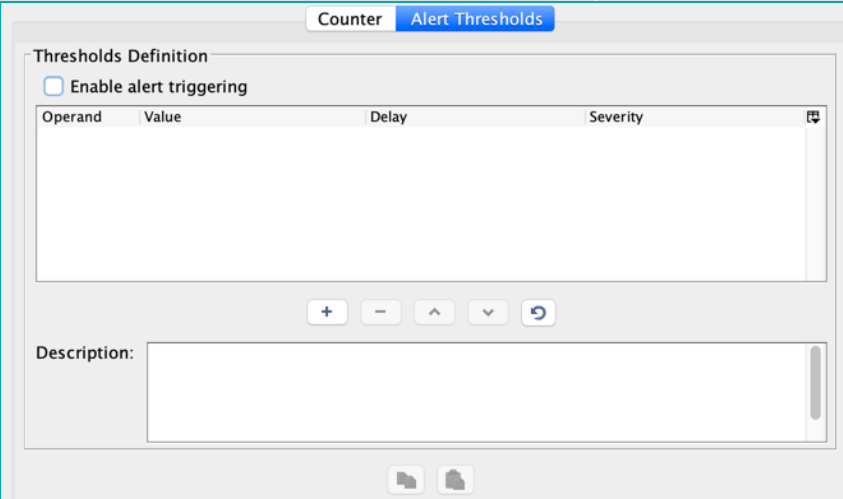
	Steps to Perform	Transactions	Application
Selecting the counters you want to measure are next but we will take just the defaults			
12	Click the 'Next'  button to continue with the wizard		
Step 3 of the wizard is to configure the 'Apache'. The first page is informational....			
13	Click the 'Next'  button to continue with the wizard. No authentication for Apache server.		
14	Click the 'Check'  button to validate connection is okay		
You should now get a successful connection			
15	Click the 'Next'  button to continue with the wizard		
Selecting the counters you want to measure are next but we will take just the defaults			


	Steps to Perform	Transactions	Application
			
16	Click the 'Finish'  button to end the wizard		
The result should be the following:			
			

Exercise 13

After completing this exercise, you will be able to:

- Setting up server monitoring alert thresholds
 - Apache




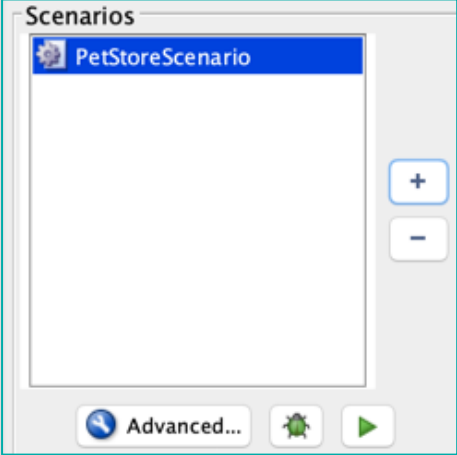
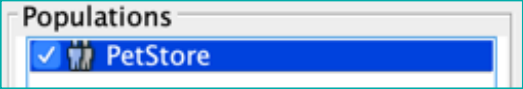
	Steps to Perform	Transactions	Application
We will now set thresholds on the servers we mapped in Exercise 12			
1	In the tree window, open the 'http-apache' icon and then the 'All' folder		
2	Click the 'BusyWorkers'  BusyWorkers selection		
3	Click the 'Alert Thresholds' tab to access the 'Thresholds Definition' window		


	Steps to Perform	Transactions	Application								
4	Click the 'Enable alert triggering' <input checked="" type="checkbox"/> Enable alert triggering option										
5	Click the 'Add a new threshold' <input type="button" value="+"/> button to add a new threshold										
6	Change the 'Value' field from '0.0' to '98.0' <div><div><input checked="" type="checkbox"/> Enable alert triggering</div><table><tr><th>Operand</th><th>Value</th><th>Delay</th><th>Severity</th></tr><tr><td>>=</td><td>98.0</td><td>15 s</td><td>Warning</td></tr></table></div>	Operand		Value	Delay	Severity	>=	98.0	15 s	Warning	
Operand	Value	Delay		Severity							
>=	98.0	15 s		Warning							
7	You can set thresholds on any counter you are monitoring, as well as different severities.										




Exercise 14


After completing this exercise, you will be able to:

- Setting up and running a NeoLoad load test

	Steps to Perform	Transactions	Application
1	Click the 'Runtime' module  Runtime button to configure run a test		
2	Click the 'Add a new scenario'  button on the upper left of the NeoLoad window and name the scenario 'PetStoreScenario'		
3	Select the population 'PetStore' from the 'Populations' section		
Next we will define an increasing workload that starts with a single user and adds an additional user every 15 seconds . Set the maximum number of VUs to 5 .			

	Steps to Perform	Transactions	Application	
4	Set the 'Duration Policy' to be by 'Time' and for '5' minutes	<div><div>Duration Policy</div><div><div><input type="radio"/> No limit (Stop manually)</div><div><input type="radio"/> By Iteration</div><div><input checked="" type="radio"/> By Time: <input type="text" value="0"/> hours <input type="text" value="5"/> minutes <input type="text" value="0"/> seconds</div></div><div>Apply to all</div></div>		
5	For the 'Load Variation Policy' section: <ul style="list-style-type: none">Choose the 'Ramp Up' policyChange 'Initial user number' to '1'Set 'Increment by' to '1' usersDefine running a user 'Every' '15' 'seconds'Select the 'Maximum number of users' and set to '5'	<div><div>Load Variation Policy</div><div><div><input type="radio"/> Constant</div><div><input checked="" type="radio"/> Ramp Up</div><div><input type="radio"/> Peaks</div><div><input type="radio"/> Custom</div></div><div><div>The load is growing regularly.</div><div>Initial user number: <input type="text" value="1"/></div><div>Increment by <input type="text" value="1"/> users</div><div>Every <input type="text" value="15"/> <div>seconds</div></div><div><input checked="" type="checkbox"/> Maximum number of users: <input type="text" value="5"/></div><div><div>Maximum is:</div><div>5 users reached after 1 minute.</div></div></div></div>		
We will start the monitors before the test starts and for a bit after the test ends				
6	Click the 'Advanced parameters for this scenario' button in the 'Scenario' section	<div><div>Scenarios</div><div><div>PetStoreScenario</div></div><div><div>Advanced...</div></div></div>		

	Steps to Perform	Transactions	Application
7	Change the ' Monitoring parameters ' section to start the monitors ' 1 ' minute before and ' 1 ' minute after the test	<div>Advanced runtime<ul style="list-style-type: none"><input checked="" type="checkbox"/> Display Virtual User status during the test.Monitoring parameters:<ul style="list-style-type: none"><input checked="" type="checkbox"/> Before the first Virtual User starts, monitor for 60 seconds<input checked="" type="checkbox"/> Once all the Virtual Users have stopped, monitor for 60 seconds</div>	
8	Click the 'OK'  button to accept the changes		
9	Within the ' Load Generators ' section, make sure the ' localhost:7100 ' generator is selected	<div>Load Generators<ul style="list-style-type: none"><input checked="" type="checkbox"/> Zones<ul style="list-style-type: none"><input checked="" type="checkbox"/> Default zone<ul style="list-style-type: none"><input checked="" type="checkbox"/> localhost:7100</div>	
10	Click the ' Start playing the currently selected scenario '  button either at the top of the screen or just under the ' Scenarios ' section on the left of the NeoLoad window		

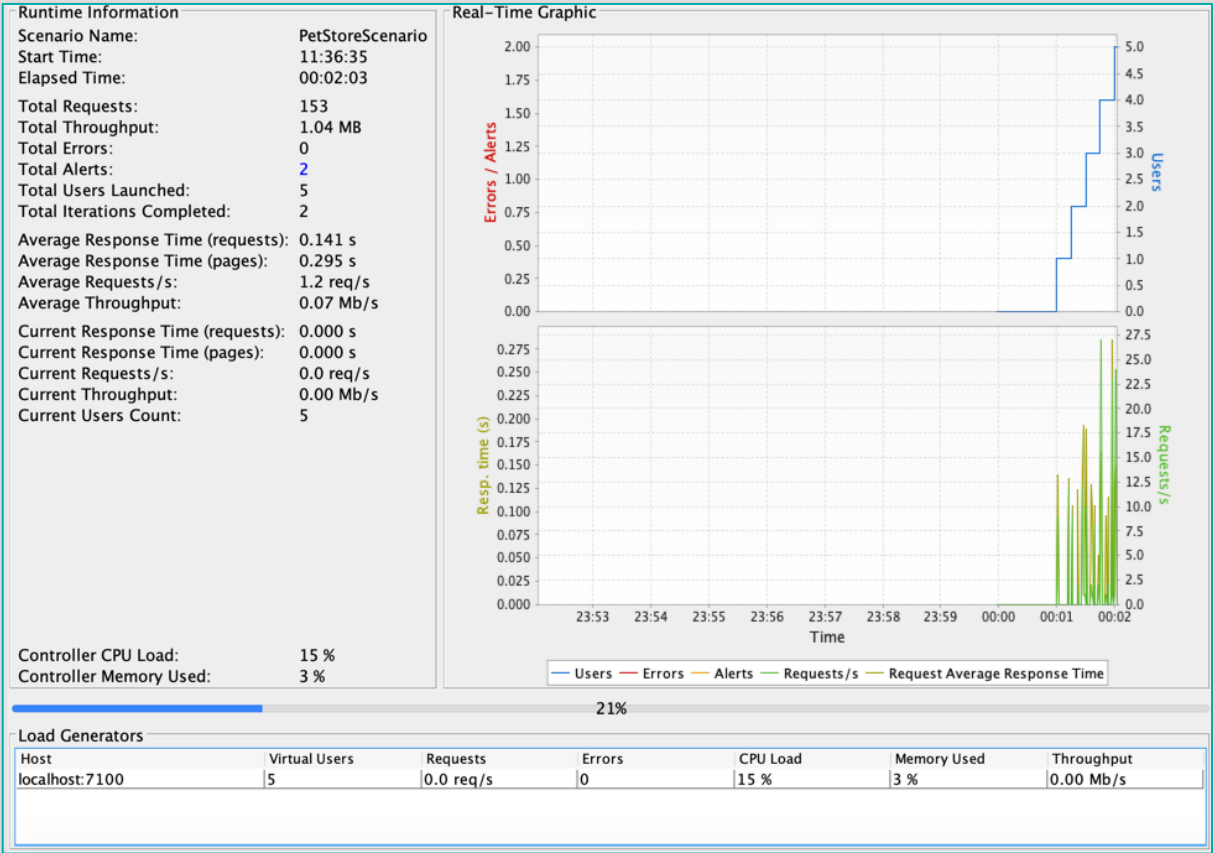
	Steps to Perform	Transactions	Application				
10a	NeoLoad will perform a ‘Sanity Check’ to validate that everything is setup correctly to run a test....if you get this window then just click the <div>▶ Run "PetStoreScenario"</div> button from here	<div>Execution Sanity Check</div> <div>Issues Detected Before Executing Scenario "PetStoreScenario"</div> <div>Fix issues and refresh the list before executing the Scenario.</div> <div>1 warning</div> <table><tr><th>Description</th><th>Resolution</th></tr><tr><td>Advanced WAN Emulation (latency, packet loss) not supported by Load Generator "localhost:7100"</td><td>Load Generators</td></tr></table> <div>▶ Run "PetStoreScenario" Refresh Close</div>	Description	Resolution	Advanced WAN Emulation (latency, packet loss) not supported by Load Generator "localhost:7100"	Load Generators	
Description	Resolution						
Advanced WAN Emulation (latency, packet loss) not supported by Load Generator "localhost:7100"	Load Generators						
The ‘Test description’ window appears where you can name the test as well as put in a description of what you are running							
11	Name the new test ‘PetStoreTest’						
11a	If the ‘Transfer data to NeoLoad Web’ is highlighted and selected then uncheck this option.	<div><input type="checkbox"/> Transfer data to NeoLoad Web Change settings...</div>					
If this option is available, then NeoLoad will send data to the NeoLoad Web components as well.							

	Steps to Perform	Transactions	Application
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12 Click the 'Play' Play button

The test should start and you should be on the 'Runtime Information' Screen where you can see the test running

Explore the other tabs to see what Is presented during Runtime




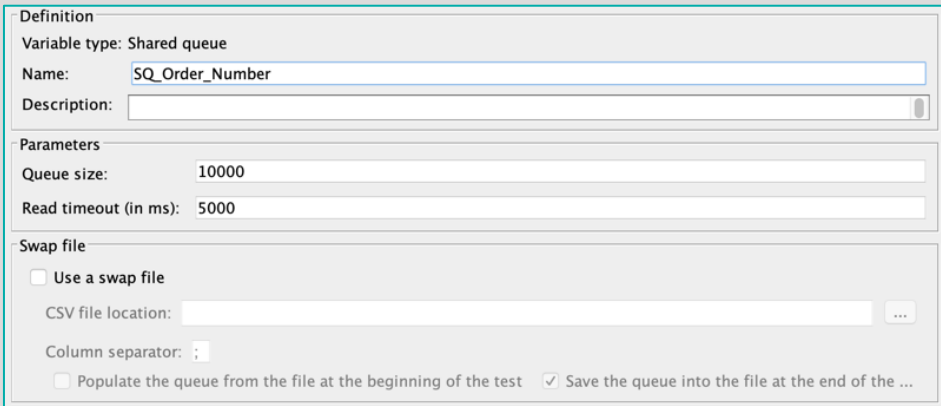







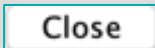
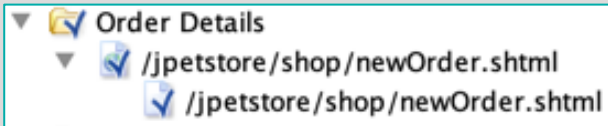
Finished








Exercise 15


After completing this exercise, you will be able to:


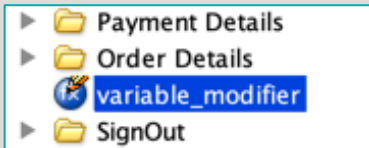

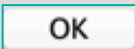
- Sharing data between different User Paths in a project
 - Shared Queue
 - Variable Modifier


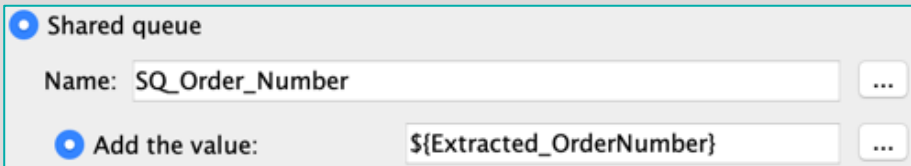
	Steps to Perform	Transactions	Application
1	Duplicate the 'Exercise 05 - Buyer' User Path and name this new one 'Exercise 15a - SQBuyer'		
We sill now create a Shared Queue			
2	Click the 'Variables'  icon to launch the 'Variable Manager' window		
3	Click the 'New variable'  button on the lower left of the window		
4	Pick the 'Shared Queue' option from the list of variables listed		
5	Within the 'Shared queue' window, name the shared queue 'SQ_Order_Number'		


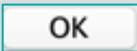


	Steps to Perform	Transactions	Application	
6	Leave all the other default options and click the 'OK'  button			
7	Back on the 'Edit variables' window, click the 'Apply'  and then the 'OK'  buttons			
Now we need to grab the order number from a response				
8	Single-click the 'Exercise 15 - SQBuyer' User Path and launch the 'Flag'  window			
Do a search for the 'Order #'. The Flag entry is case sensitive.				
9	Click the 'whose recorded response contains:' and enter 'Order #' into this field			
10	Click the 'Close'  button on the 'Requests to flag' window			
There should be a blue check mark on the following transaction: <ul style="list-style-type: none">Order Details<ul style="list-style-type: none">/jpetstore/shop/newOrder.shtml<ul style="list-style-type: none">/jpetstore/shop/newOrder.shtml				
				


	Steps to Perform	Transactions	Application
11	Select the request and click the 'Advanced'  button at the bottom of the NeoLoad window		
12	Within the 'Advanced Parameters' window, go to the 'Variable extractors' tab		
13	Click the 'Extract a new extractor'  button		
14	On the 'Variable Extractor' window, name the new extraction as 'Extracted_OrderNumber'		
15	Click the 'Text Picker'  button on the 'Starting with:' section to launch the response		
16	On the 'Response test picker' window, on the 'Find' field, type 'Order #' to search the response		
17	Highlight the following 'Order #' and click the 'Pick selected text'  button		
18	Click the 'Text Picker'  button on the 'Ending with:' section to launch the response		
19	Highlight the following '<' and click the 'Pick selected text'  button		






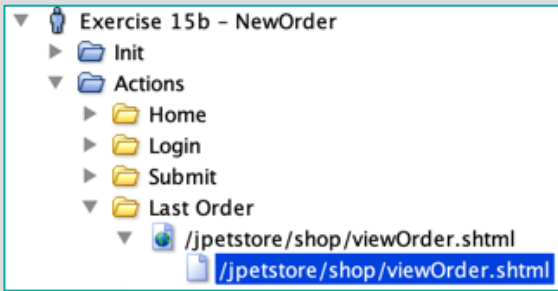

	Steps to Perform	Transactions	Application						
	<p>You should now see the Order # listed in the ‘Test’ field like:</p>	<div>Test Value extracted from recorded content: 7886</div>							
	<p>The Variable Extractor should look like:</p>	<div>Variable extractors Extract a variable from response content <table><tr><th>Variable Name</th><th>Regular Expression</th><th>Template</th></tr><tr><td>Extracted_OrderNumber</td><td>Order #(.*)<</td><td>\$1\$</td></tr></table></div>		Variable Name	Regular Expression	Template	Extracted_OrderNumber	Order #(.*)<	\$1\$
Variable Name	Regular Expression	Template							
Extracted_OrderNumber	Order #(.*)<	\$1\$							
20	Click the ‘OK’ <div>OK</div> button at the bottom of the ‘Variable Extractor’ window								
	<p>We need to set the User/Password, for JPetStore, back to j2ee/j2ee</p>								
	<p>Go to the following request:</p> <ul style="list-style-type: none">Submit<ul style="list-style-type: none">/jpetstore/shop/signon.shtml	<div>Submit /jpetstore/shop/signon.shtml;jse /jpetstore/shop/signon.shtml</div>							
21	Double-click on the ‘\${Users.Username}’ field and change it to ‘j2ee’								
22	Double-click on the ‘\${Users.Password}’ field and change it to ‘j2ee’								





	Steps to Perform	Transactions	Application										
The Post Parameters should look like:													
<table border="1"><thead><tr><th>Name</th><th>Value</th></tr></thead><tbody><tr><td>username</td><td>j2ee</td></tr><tr><td>password</td><td>j2ee</td></tr><tr><td>x</td><td>38</td></tr><tr><td>y</td><td>10</td></tr></tbody></table>		Name		Value	username	j2ee	password	j2ee	x	38	y	10	
Name	Value												
username	j2ee												
password	j2ee												
x	38												
y	10												
Next we will add a 'Variable Modifier' action to pass the Order # to a Shared Queue													
23	Select and drag a 'Variable Modifier' action into the 'Exercise 15 - SQBuyer' User Path and place it just above the transaction 'SignOut'												
Now we will change the parameters of the new 'variable_modifier' action													
24	Single-click the new 'variable_modifier' action and select the option 'Shared queue'												
25	To add the Shared queue we created earlier, click the 'Variable Picker'  button												
26	Pick the 'SQ_Order_Number' on the 'Variable picker' window												
27	Click the 'OK'  button on the 'Variable picker' window												

	Steps to Perform	Transactions	Application
Next we will add the 'OrderNumber' parameter to the shared queue			
28	Select the 'Add the value:' option <input checked="" type="radio"/> Add the value: if not already selected		
29	To add the 'Extracted_OrderNumber', we created earlier, click the 'Variable Picker' <input type="button" value="..."/> button		
30	Pick the 'Extracted_OrderNumber' on the 'Variable picker' window, leave the defaults and click the 'OK' <input type="button" value="OK"/> button		
Next we will create a new User Path, based on the 'Exercise 15 - SQBuyer', in which we create a new order using the '\${Extracted_OrderNumber}' variable			
31	Start a Recording. Click the record <input checked="" type="radio"/> button		
32	Pick the browser type you are going to use for recording and click OK. If you get a pop-up asking you to close your browser, then close it before recording.		
Make sure you have copied the JPetStore URL to your clipboard			

	Steps to Perform	Transactions	Application
33	Name this new User Path as 'Exercise 15b – NewOrder'		
34	Click the 'OK'  button		
35	On the 'Transaction' field, within the 'Recording' window, click the down arrow to 'Prefill' the list from another User Path		
36	On the 'Transaction name' window, select the 'Exercise 15 – SQBuyer' User Path to prefill the transaction names		
37	Click the 'OK'  button		
38	Paste the URL in the browser and launch JPetStore	Home	
39	Log into JPetStore by clicking the 'Sign-in' link	Login	

	Steps to Perform	Transactions	Application
40	Click the 'Submit' button	Submit	
41	Next we will substitute the JPetStore URL with one that will load an existing order #. Type the following into the URL field: http://training.local:8080/jpetstore/shop/viewOrder.shtml?orderId=1000		
42	Launch the new URL	Last Order	
43	Click on one of the 'Item ID' at the bottom of this order	New Pet	
44	Click the 'Add to Cart' button	Add to Cart	
45	Click the 'Proceed to Checkout' button	Checkout	
46	Click the 'Continue' button on the 'Checkout Summary' page	Checkout Summary	
47	Click the 'Submit' button on the 'Payment Details' page	Payment Details	
48	Click the 'Continue' button on the 'Order Details' page	Order Details	

	Steps to Perform	Transactions	Application
50	Logout of JPetStore by clicking the ‘Sign-out’ link	SignOut	
51	Stop the recording 		
52	At the ‘Post-Recording Wizard’, click the ‘Next’  button on step #1		
53	Click the ‘Finish’  button on the Post-Recording Wizard		
Next we need to change the Order # from the recording to point to the Shared Queue			
54	Open the new ‘Exercise 15b – NewOrder’ User Path and go to the ‘Last Order’ transaction		
55	Go to the following request: <ul style="list-style-type: none">• Last Order<ul style="list-style-type: none">• /jpetstore/shop/viewOrder.shtml <div></div>		
56	Double-click on the ‘orderId’ value of ‘1000’		
57	Click the ‘Variable Picker’  button to get the list of available variables		

	Steps to Perform	Transactions	Application													
58	On the 'Variable Picker' window, pick the Shared Queue variable 'SQ_Order_Number' to push the data from the queue into this User Path	<div>Request parameters:</div> <table><tr><th>Name</th><th>Value</th></tr><tr><td>orderId</td><td>\${SQ_Order_Number}</td></tr></table>	Name	Value	orderId	\${SQ_Order_Number}										
Name	Value															
orderId	\${SQ_Order_Number}															
59	Click on the 'OK'  button															
Now let's run the User Paths to see the results																
60	Click the  (Check a user path) button to check the validity of the 'Exercise 15a - SQBuyer' User Path															
61	Make note of the Variable that was captured for the 'SQ_Order_Number' push the Shared Queue	<div>Variables extracted during validation:</div> <table><tr><th>Name</th><th>Value</th></tr><tr><td>Extracted_ID</td><td>1541190017345</td></tr><tr><td>Extracted_Category</td><td>FISH</td></tr><tr><td>Extracted_productId</td><td>FI-FW-01</td></tr><tr><td>Extracted_itemId</td><td>EST-4</td></tr><tr><td>Extracted_OrderNumber</td><td>7902</td></tr><tr><td>SQ_Order_Number</td><td>7902</td></tr></table>	Name	Value	Extracted_ID	1541190017345	Extracted_Category	FISH	Extracted_productId	FI-FW-01	Extracted_itemId	EST-4	Extracted_OrderNumber	7902	SQ_Order_Number	7902
Name	Value															
Extracted_ID	1541190017345															
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Extracted_productId	FI-FW-01															
Extracted_itemId	EST-4															
Extracted_OrderNumber	7902															
SQ_Order_Number	7902															
62	Click the  (Check a user path) button to check the validity of the 'Exercise 15b – NewOrder' User Path															
63	Make note of the Variable that was captured for the 'SQ_Order_Number' push the Shared Queue	<div>Variables used during validation:</div> <table><tr><th>Name</th><th>Value</th></tr><tr><td>AutoPassword_2</td><td>j2ee</td></tr><tr><td>SQ_Order_Number</td><td>7902</td></tr></table>	Name	Value	AutoPassword_2	j2ee	SQ_Order_Number	7902								
Name	Value															
AutoPassword_2	j2ee															
SQ_Order_Number	7902															