**PERFORMANCE AND LOAD TEST REPORT**

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| **Test Name：** | MOVIERENTAL-PERFORMANCEANDLOAD |
| **Test Code:** | PERFORLOAD-1353 |
| **Responsible Tester:** | Kimi |
| **Tester ID:** | 22001587 |
| **Executed Date:** | 10/10/2020 |
| **PART 1: Performance Test Explanation** | |
| 1. Create a new web performance and load test project, and name it as MovieRentalPerformanceTest.      1. Click the red point button in the control panel, which will evoke the record function.      1. After clicking the record button, the IE browser will be evoked then tester could start the performance test. First we can click the customer page to test.      1. We can press different buttons on the page, we can see that the left web test recorder keeps changing as you conduct different operations.     5. After finishing all the operations on the customer page, we can click the Stop button which locates in the web test recorder menu bar.    6. Then it will jump back to VS, as we can see that the system will start to detect dynamic parameters and produce large quantity of data in the window.    7. After detection, we can click the run test button which is above the URL.    8. We can click different URL in the list to check results under browser tab.    9. We can then click different tabs under the customer page, for example, the request tab to check the value. The Request tab contains all the information about the request, such as Headers, Cookies, QueryString parameters, and Form POST parameters.    10. Switch other tabs to continue check. The Details tab shows the status of the rules that are executed during the test    12. Apply this logic to other parts of the web application, we can test more parts of the application. | |
| **PART 2: Load Test Explanation** | |
| 1. Click Add Load Test from Project in menu bar.      1. Change the load test configuration as below for run settings.      1. Change the load test configuration as below for Scenario.     4. Change the load test configuration as below for local pattern.     1. Change the load test configuration as below for test mix model.      1. Click the Add button to add the tests you want to test in the list. Then click Next to next step.      1. Change the load test configuration as below for Network Mix section. Then click finish to finish the configuration settings.      1. After jumping back to main VS interface, click Run load test to start running the load test. Then the load test will start. | |
| **Load Test Comparison Report Explanation** | |
| We can export a comparison report thru the export report function in VS when we finished several tests. For example, as the picture shows below, the exported report gives a comparison for two tests to the load test. The first test is regarded as the baseline, while the second one is regarded as the comparison run.    From the picture below we can judge obviously, the two tests have very distinct performance difference. The second test perform more quickly and efficiently than the baseline test, which has a 42% promotion on average than the baseline test.    From the data shown in the chart of Top performance regressions, we can judge that the comparison run is slightly slower than baseline test in the average page response time. The compassion run is between 0.41 and 0.42 seconds, while the baseline is about 0.40 second. On the whole, the difference is very slight.    As for the top performance improvements, we can judge from the chart below that almost all comparison run is in the lead. Obviously, the comparison run has a better performance than the baseline test in this part. | |