CTFL PERFORMANCE PRACTICAL EXERCISES

Exercise 3 – 30 mins.

3. (K4) Analyze throughput and concurrency when developing performance tests

Scenario:

An international travel website has embarked on a project to upgrade the flight booking functionality of its website. The current booking engine is slow and cumbersome.

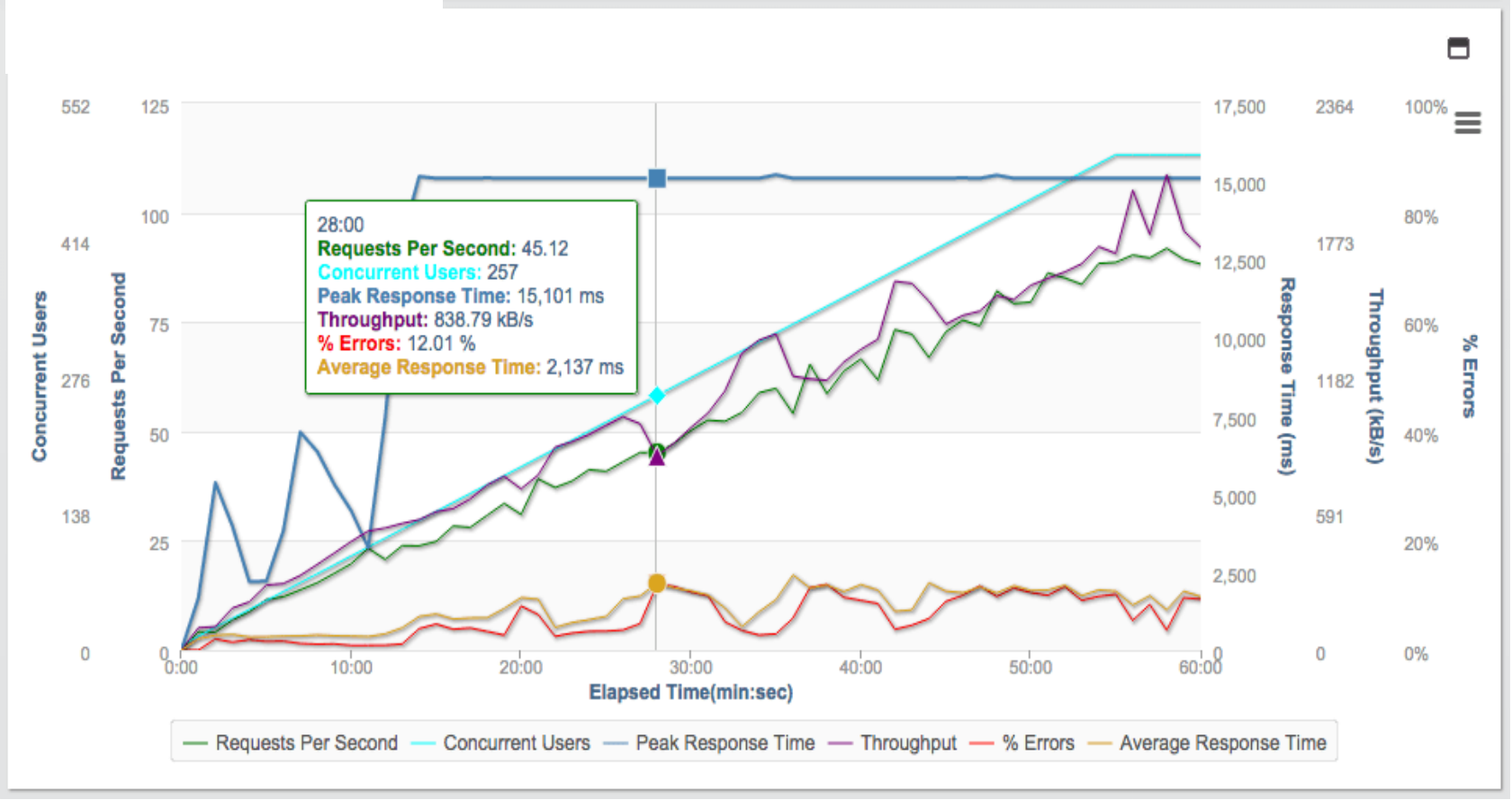
The time currently measured for a customer on average to complete a booking is **5.7 minutes**. Observations reveal that on average, a customer takes **35 seconds** to enter data and click the button to proceed to the next step in the process. There are **three steps** in the booking process. The fastest time observed for a tester to complete the booking process is **2.1 minutes**.

You have the following information available to help plan performance tests:

- Network monitoring reports
- Web server monitoring reports
- Website analytics reports
- Server error logs
- Transaction reports which show the number of flights booked hourly each day

This information is compiled daily and displayed in a dashboard and also exported to a spreadsheet format as shown on the next page.

Exercise 3


28:00
Requests Per Second: 45.12
Concurrent Users: 257
Peak Response Time: 15,101 ms
Throughput: 838.79 kB/s
% Errors: 12.01 %
Average Response Time: 2,137 ms
Concurrent Users
Requests Per Second
Response Time (ms)
Throughput (kB/s)
% Errors
Elapsed Time(min:sec)
0:00
10:00
20:00
30:00
40:00
50:00
60:00
Requests Per Second
Concurrent Users
Peak Response Time
Throughput
% Errors
Average Response Time

Exercise 3

	A	B	C	D	E	F
1	Travel World Performance Monitoring					
2						
3	Date Range	1/1/XXXX	1/30/XXXX			
4						
5	Website					
6	Avg Hits/Hr	Avg Sessions/Hr	Avg Sessions/Day	Avg. Bookings/Hr	Avg. Bookings/Day	Avg. Users/Hr
7	3540	423	9980	340	7804	503
8						
9	Network					
10	Avg KBytes/S	Avg Response Ti	Avg Packet Loss/H	Avg Errors/Hr		
11	930	8200 ms	203	120		
12						

Analyze this information to determine throughput and concurrent usage of the current website.

Throughput:

Troguthput = [number of virtual users] / ([processing time] + [think time])

503 / 216 + 105 = 1,56 bookings/seconds

5,7 – 342 seconds
2,1 – 126 seconds
342 – 126 = 216 seconds

Concurrent usage: **503 users**