Sprint 2 Performance Test Report

1.Design test cases for performance test:

The table below shows the test cases designed for the performance test held from 23rd, May to 25th, May. It is important to mention that although the performance test is a part of sprint 2 testing procedures, it also contains testing cases designed for user stories of sprint 1.

Code	Module	Name	Designer	Type	Pre-conditions	Steps	Expected outcome	Importance level
P-1	U1	1000 threads concurrently simulate U1 - 'forget password'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 1. 3. Currently login in.	1.In the controller, create a new http 'GET' request: path '/getpassword/zhangchengyu773@163.com'; 2.In the controller, create a new http 'POST' request: path '/sendmail/', body data '{"mail":" zhangchengyu773@163.com","pass":" password"}'.	1. /; 2. Meet the performance requirement of the clients.	P1
P-2	U2	1000 threads concurrently simulate U2 - 'third-party login'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 2.	1.In the controller, create a new http 'POST' request: path '/login', body data '{"mail":" a registered Google mail","pass":"password"}'; 2.In the controller, create a new http 'POST' request: path '/login', body data '{"mail":" a registered Facebook mail","pass":"password"}'.	Meet the performance requirement of the clients;	P1
P-3	U3	1000 threads concurrently simulate U3 - 'hide sections - Education'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideE /607ff77a07893742ab7afccd', body data '{"sectionE":"none"}'.	Meet the performance requirement of the clients.	P1
P-4	U3	1000 threads concurrently simulate U3 - 'hide sections - Work Experience'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideW /607ff77a07893742ab7afccd', body data '{"sectionW":"none"}'.	Meet the performance requirement of the clients.	P2
P-5	U3	1000 threads concurrently simulate U3 - 'hide sections - Projects'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideP /607ff77a07893742ab7afccd', body data '{"sectionP":"none"}'.	Meet the performance requirement of the clients.	P2
P-6	U3	1000 threads concurrently simulate U3 - 'hide sections - Skills'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideSk /607ff77a07893742ab7afccd', body data '{"sectionSk":"none"}'.	Meet the performance requirement of the clients.	P2

P-7	U3	1000 threads concurrently simulate U3 - 'hide sections - Subjects'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideSu /607ff77a07893742ab7afccd', body data '{"sectionSu":"none"}'.	Meet the performance requirement of the clients.	P2
P-8	U3	1000 threads concurrently simulate U3 - 'hide sections - Gallery'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideG /607ff77a07893742ab7afccd', body data '{"sectionG":"none"}'.	Meet the performance requirement of the clients.	P2
P-9	U3	1000 threads concurrently simulate U3 - 'show sections - Education'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideE /607ff77a07893742ab7afccd', body data '{"sectionE":"block"}'.	Meet the performance requirement of the clients.	P1
P-10	U3	1000 threads concurrently simulate U3 - 'show sections - Work Experience'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideW /607ff77a07893742ab7afccd', body data '{"sectionW":"block"}'.	Meet the performance requirement of the clients.	P2
P-11	U3	1000 threads concurrently simulate U3 - 'show sections - Projects'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideP /607ff77a07893742ab7afccd', body data '{"sectionP":"block"}'.	Meet the performance requirement of the clients.	P2
P-12	U3	1000 threads concurrently simulate U3 - 'show sections - Skills'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideSk /607ff77a07893742ab7afccd', body data '{"sectionSk":"block"}'.	Meet the performance requirement of the clients.	P2
P-13	U3	1000 threads concurrently simulate U3 - 'show sections - Subjects'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideSu /607ff77a07893742ab7afccd', body data '{"sectionSu":"block"}'.	Meet the performance requirement of the clients.	P2

P-14	U3	1000 threads concurrently simulate U3 - 'show sections - Gallery'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 3. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/hideG/607ff77a07893742ab7afccd', body data '{"sectionG":"block"}'.	Meet the performance requirement of the clients.	P2
P-15	U4	1000 threads concurrently simulate U4 - 'reset user's account'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 4. 3. Currently login in. 4. Currently in the resetting page.	1.In the controller, create a new http 'GET' request: path '/getpassword/zhangchengyu773@163.com'; 2.In the controller, create a new http 'POST' request: path '/user/607ff77a07893742ab7afccd/update', body data '{"id":"/","name":"/","email":"/","password":"/","password2":"/"}'.	1. /; 2. Meet the performance requirement of the clients.	P1
P-16	U5	1000 threads concurrently simulate U5 - 'add one file'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 5. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/profileskills/607ff77a07893742ab7afccd', body data '{"skill":"3. Java"}'.	Meet the performance requirement of the clients.	P1
P-17	U5	1000 threads concurrently simulate U5 - 'delete one file'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 5. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/findanddeletskill/607ff77a07893742ab7afccd', body data '{"skill":"3. Java"}'.	Meet the performance requirement of the clients.	P1
P-16	U5	1000 threads concurrently simulate U5 - 'add another file'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 5. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/profileskills/607ff77a07893742ab7afccd', body data '{"subjectname":"NLP","subjectdesc":"COMP90042","year":"4"}'.	Meet the performance requirement of the clients.	P2
P-19	U5	1000 threads concurrently simulate U5 - 'delete another file'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 5. 3. Currently login in.	In the controller, create a new http 'PUT' request: path '/findanddeletskill/607ff77a07893742ab7afccd', body data '{"_id":"60a9c383a72c2c000497f05a", "subjectname":"NLP","subjectdescripition":"COMP90042","subjectyear":4}'	Meet the performance requirement of the clients.	P2
P-20	U6	1000 threads concurrently simulate U6 - 'copy and paste URL'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 6. 3. Currently login in.	1. In the controller, create a new http 'GET' request: path '/profile1/607ff77a07893742ab7afccd'; 2.In the controller, create a new http 'GET' request: path '/public/zhangchengyu773@163.com'.	Meet the performance requirement of the clients.	P1

P-21	U7	1000 threads concurrently simulate U7 - 'send email'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 7. 3. Currently in the 'public profile' page.	In the controller, create a new http 'POST' request: path '/contact', body data '{"mail":" zhangchengyu773@163.com","info":"This is for user story7."}'	Meet the performance requirement of the clients.	P1
P-22	U8	1000 threads concurrently simulate U8 - 'download PDF'	Chengyu Zhang	Performance test	1. Has already created a thread group with 1000 threads ramping up in 1 second. 2. Has already create a new transaction controller for user story 8. 3. Currently in the 'public profile' page.	In the controller, create a new http 'GET' request: path '/getpassword/zhangchengyu773@163.com'.	Meet the performance requirement of the clients.	P1

2.Execute the test cases designed for the performance test:

The testing team used JMeter to execute test cases designed to examine the performance of the system under high pressure. The charts and pictures below provide a thorough description of the result of the performance test.

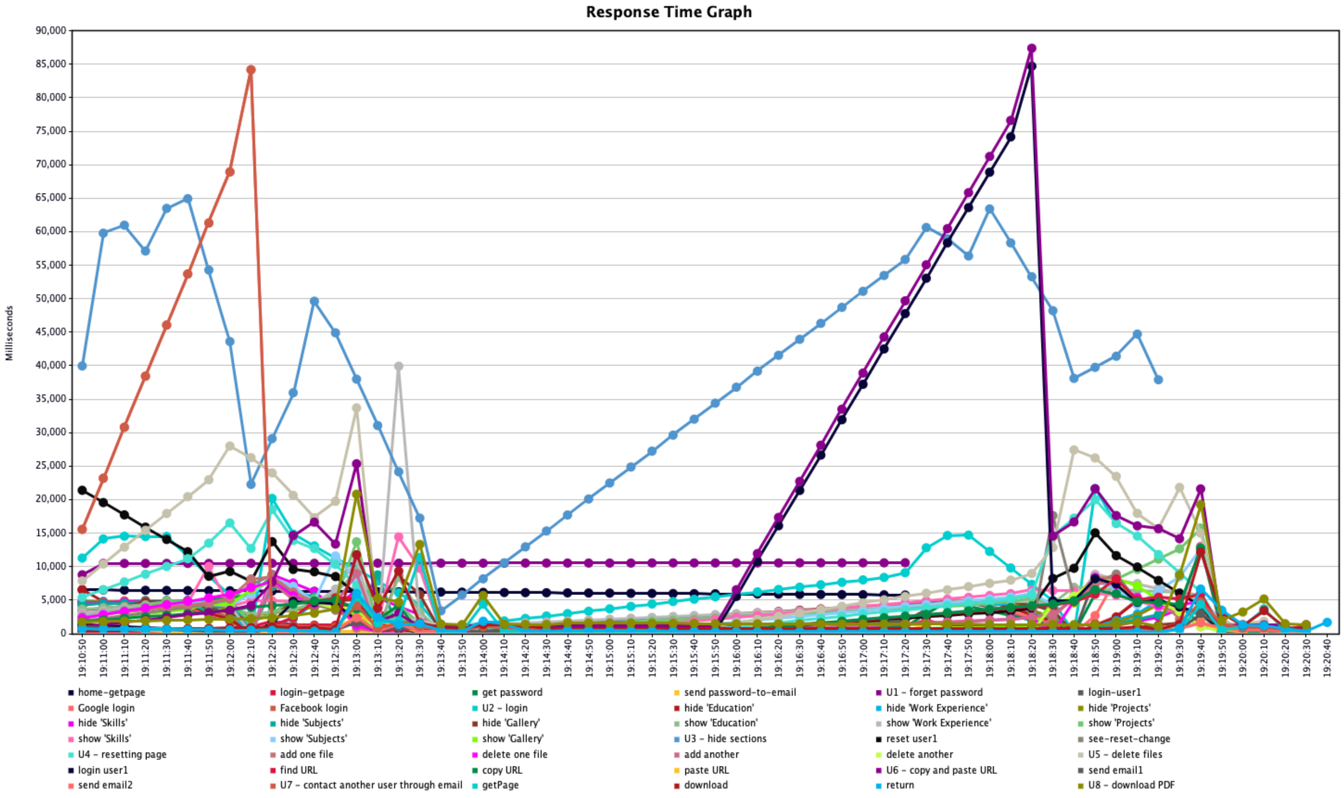
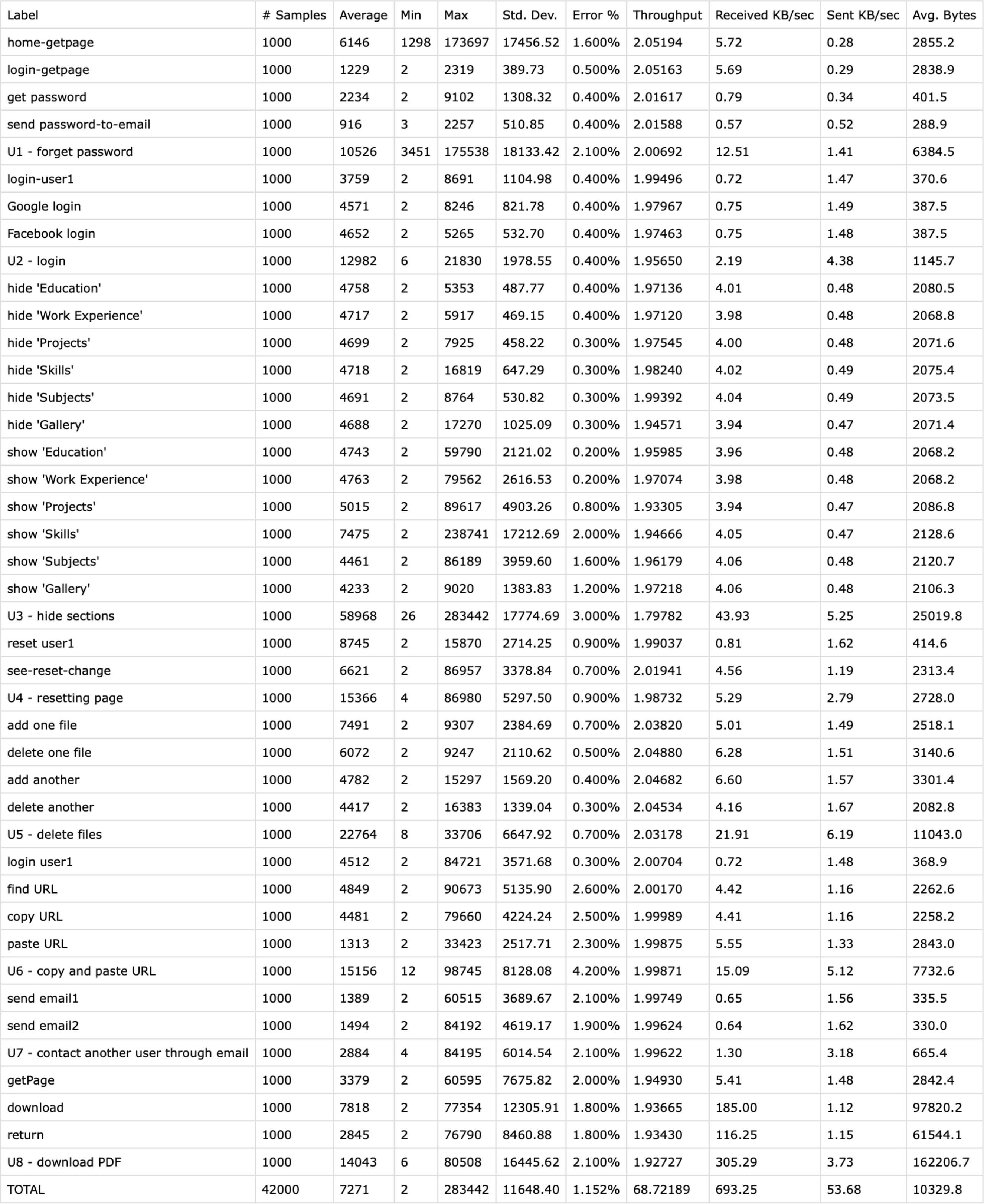
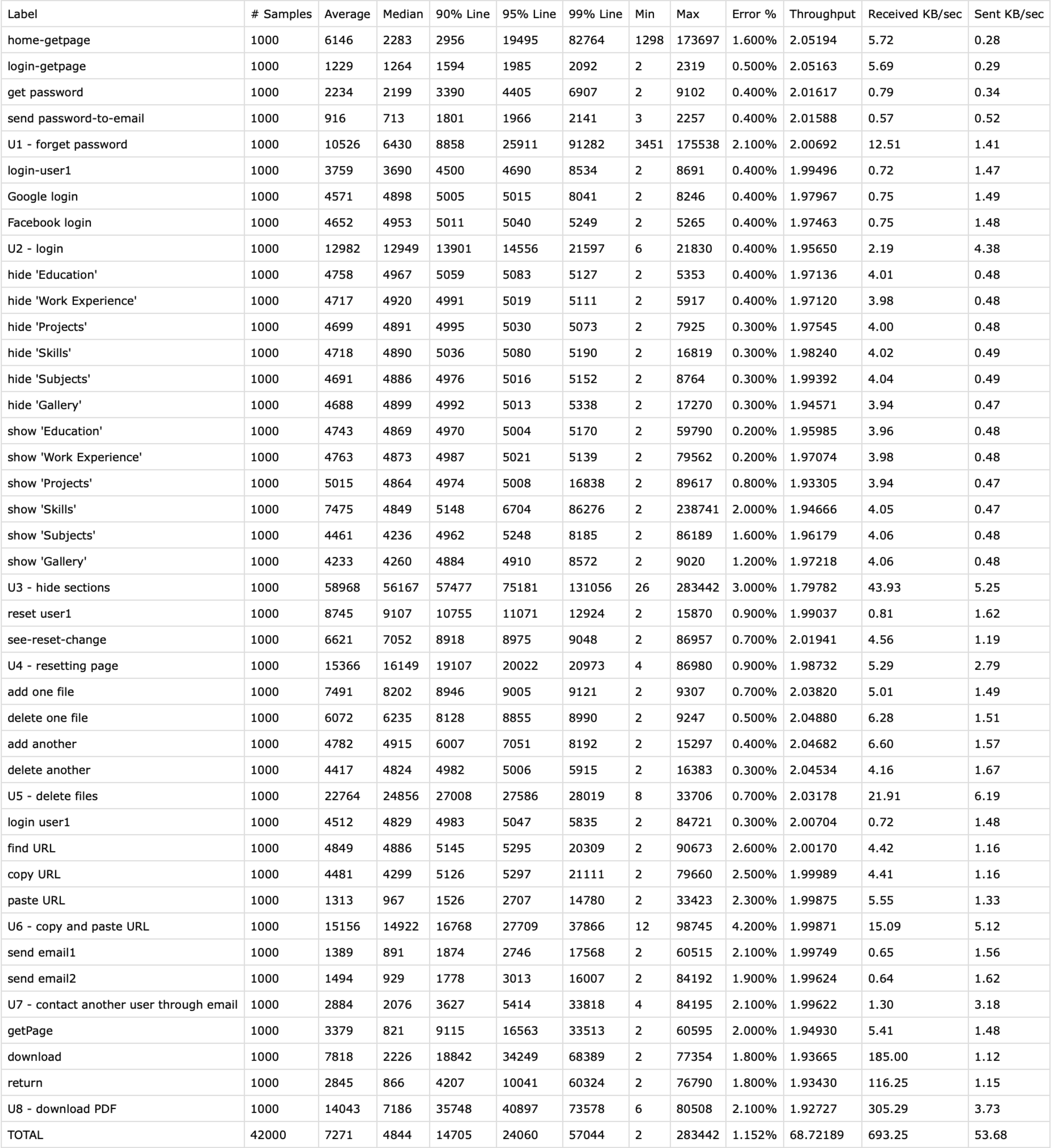


Figure 1: Response Time Graph



Label	# Samples	Average	Min	Max	Std. Dev.	Error %	Throughput	Received KB/sec	Sent KB/sec	Avg. Bytes
home-getpage	1000	6146	1298	173697	17456.52	1.600%	2.05194	5.72	0.28	2855.2
login-getpage	1000	1229	2	2319	389.73	0.500%	2.05163	5.69	0.29	2838.9
get password	1000	2234	2	9102	1308.32	0.400%	2.01617	0.79	0.34	401.5
send password-to-email	1000	916	3	2257	510.85	0.400%	2.01588	0.57	0.52	288.9
U1 - forget password	1000	10526	3451	175538	18133.42	2.100%	2.00692	12.51	1.41	6384.5
login-user1	1000	3759	2	8691	1104.98	0.400%	1.99496	0.72	1.47	370.6
Google login	1000	4571	2	8246	821.78	0.400%	1.97967	0.75	1.49	387.5
Facebook login	1000	4652	2	5265	532.70	0.400%	1.97463	0.75	1.48	387.5
U2 - login	1000	12982	6	21830	1978.55	0.400%	1.95650	2.19	4.38	1145.7
hide 'Education'	1000	4758	2	5353	487.77	0.400%	1.97136	4.01	0.48	2080.5
hide 'Work Experience'	1000	4717	2	5917	469.15	0.400%	1.97120	3.98	0.48	2068.8
hide 'Projects'	1000	4699	2	7925	458.22	0.300%	1.97545	4.00	0.48	2071.6
hide 'Skills'	1000	4718	2	16819	647.29	0.300%	1.98240	4.02	0.49	2075.4
hide 'Subjects'	1000	4691	2	8764	530.82	0.300%	1.99392	4.04	0.49	2073.5
hide 'Gallery'	1000	4688	2	17270	1025.09	0.300%	1.94571	3.94	0.47	2071.4
show 'Education'	1000	4743	2	59790	2121.02	0.200%	1.95985	3.96	0.48	2068.2
show 'Work Experience'	1000	4763	2	79562	2616.53	0.200%	1.97074	3.98	0.48	2068.2
show 'Projects'	1000	5015	2	89617	4903.26	0.800%	1.93305	3.94	0.47	2086.8
show 'Skills'	1000	7475	2	238741	17212.69	2.000%	1.94666	4.05	0.47	2128.6
show 'Subjects'	1000	4461	2	86189	3959.60	1.600%	1.96179	4.06	0.48	2120.7
show 'Gallery'	1000	4233	2	9020	1383.83	1.200%	1.97218	4.06	0.48	2106.3
U3 - hide sections	1000	58968	26	283442	17774.69	3.000%	1.79782	43.93	5.25	25019.8
reset user1	1000	8745	2	15870	2714.25	0.900%	1.99037	0.81	1.62	414.6
see-reset-change	1000	6621	2	86957	3378.84	0.700%	2.01941	4.56	1.19	2313.4
U4 - resetting page	1000	15366	4	86980	5297.50	0.900%	1.98732	5.29	2.79	2728.0
add one file	1000	7491	2	9307	2384.69	0.700%	2.03820	5.01	1.49	2518.1
delete one file	1000	6072	2	9247	2110.62	0.500%	2.04880	6.28	1.51	3140.6
add another	1000	4782	2	15297	1569.20	0.400%	2.04682	6.60	1.57	3301.4
delete another	1000	4417	2	16383	1339.04	0.300%	2.04534	4.16	1.67	2082.8
U5 - delete files	1000	22764	8	33706	6647.92	0.700%	2.03178	21.91	6.19	11043.0
login user1	1000	4512	2	84721	3571.68	0.300%	2.00704	0.72	1.48	368.9
find URL	1000	4849	2	90673	5135.90	2.600%	2.00170	4.42	1.16	2262.6
copy URL	1000	4481	2	79660	4224.24	2.500%	1.99989	4.41	1.16	2258.2
paste URL	1000	1313	2	33423	2517.71	2.300%	1.99875	5.55	1.33	2843.0
U6 - copy and paste URL	1000	15156	12	98745	8128.08	4.200%	1.99871	15.09	5.12	7732.6
send email1	1000	1389	2	60515	3689.67	2.100%	1.99749	0.65	1.56	335.5
send email2	1000	1494	2	84192	4619.17	1.900%	1.99624	0.64	1.62	330.0
U7 - contact another user through email	1000	2884	4	84195	6014.54	2.100%	1.99622	1.30	3.18	665.4
getPage	1000	3379	2	60595	7675.82	2.000%	1.94930	5.41	1.48	2842.4
download	1000	7818	2	77354	12305.91	1.800%	1.93665	185.00	1.12	97820.2
return	1000	2845	2	76790	8460.88	1.800%	1.93430	116.25	1.15	61544.1
U8 - download PDF	1000	14043	6	80508	16445.62	2.100%	1.92727	305.29	3.73	162206.7
TOTAL	42000	7271	2	283442	11648.40	1.152%	68.72189	693.25	53.68	10329.8

Figure 2: Summary Report



Label	# Samples	Average	Median	90% Line	95% Line	99% Line	Min	Max	Error %	Throughput	Received KB/sec	Sent KB/sec
home-getpage	1000	6146	2283	2956	19495	82764	1298	173697	1.600%	2.05194	5.72	0.28
login-getpage	1000	1229	1264	1594	1985	2092	2	2319	0.500%	2.05163	5.69	0.29
get password	1000	2234	2199	3390	4405	6907	2	9102	0.400%	2.01617	0.79	0.34
send password-to-email	1000	916	713	1801	1966	2141	3	2257	0.400%	2.01588	0.57	0.52
U1 - forget password	1000	10526	6430	8858	25911	91282	3451	175538	2.100%	2.00692	12.51	1.41
login-user1	1000	3759	3690	4500	4690	8534	2	8691	0.400%	1.99496	0.72	1.47
Google login	1000	4571	4898	5005	5015	8041	2	8246	0.400%	1.97967	0.75	1.49
Facebook login	1000	4652	4953	5011	5040	5249	2	5265	0.400%	1.97463	0.75	1.48
U2 - login	1000	12982	12949	13901	14556	21597	6	21830	0.400%	1.95650	2.19	4.38
hide 'Education'	1000	4758	4967	5059	5083	5127	2	5353	0.400%	1.97136	4.01	0.48
hide 'Work Experience'	1000	4717	4920	4991	5019	5111	2	5917	0.400%	1.97120	3.98	0.48
hide 'Projects'	1000	4699	4891	4995	5030	5073	2	7925	0.300%	1.97545	4.00	0.48
hide 'Skills'	1000	4718	4890	5036	5080	5190	2	16819	0.300%	1.98240	4.02	0.49
hide 'Subjects'	1000	4691	4886	4976	5016	5152	2	8764	0.300%	1.99392	4.04	0.49
hide 'Gallery'	1000	4688	4899	4992	5013	5338	2	17270	0.300%	1.94571	3.94	0.47
show 'Education'	1000	4743	4869	4970	5004	5170	2	59790	0.200%	1.95985	3.96	0.48
show 'Work Experience'	1000	4763	4873	4987	5021	5139	2	79562	0.200%	1.97074	3.98	0.48
show 'Projects'	1000	5015	4864	4974	5008	16838	2	89617	0.800%	1.93305	3.94	0.47
show 'Skills'	1000	7475	4849	5148	6704	86276	2	238741	2.000%	1.94666	4.05	0.47
show 'Subjects'	1000	4461	4236	4962	5248	8185	2	86189	1.600%	1.96179	4.06	0.48
show 'Gallery'	1000	4233	4260	4884	4910	8572	2	9020	1.200%	1.97218	4.06	0.48
U3 - hide sections	1000	58968	56167	57477	75181	131056	26	283442	3.000%	1.79782	43.93	5.25
reset user1	1000	8745	9107	10755	11071	12924	2	15870	0.900%	1.99037	0.81	1.62
see-reset-change	1000	6621	7052	8918	8975	9048	2	86957	0.700%	2.01941	4.56	1.19
U4 - resetting page	1000	15366	16149	19107	20022	20973	4	86980	0.900%	1.98732	5.29	2.79
add one file	1000	7491	8202	8946	9005	9121	2	9307	0.700%	2.03820	5.01	1.49
delete one file	1000	6072	6235	8128	8855	8990	2	9247	0.500%	2.04880	6.28	1.51
add another	1000	4782	4915	6007	7051	8192	2	15297	0.400%	2.04682	6.60	1.57
delete another	1000	4417	4824	4982	5006	5915	2	16383	0.300%	2.04534	4.16	1.67
U5 - delete files	1000	22764	24856	27008	27586	28019	8	33706	0.700%	2.03178	21.91	6.19
login user1	1000	4512	4829	4983	5047	5835	2	84721	0.300%	2.00704	0.72	1.48
find URL	1000	4849	4886	5145	5295	20309	2	90673	2.600%	2.00170	4.42	1.16
copy URL	1000	4481	4299	5126	5297	21111	2	79660	2.500%	1.99989	4.41	1.16
paste URL	1000	1313	967	1526	2707	14780	2	33423	2.300%	1.99875	5.55	1.33
U6 - copy and paste URL	1000	15156	14922	16768	27709	37866	12	98745	4.200%	1.99871	15.09	5.12
send email1	1000	1389	891	1874	2746	17568	2	60515	2.100%	1.99749	0.65	1.56
send email2	1000	1494	929	1778	3013	16007	2	84192	1.900%	1.99624	0.64	1.62
U7 - contact another user through email	1000	2884	2076	3627	5414	33818	4	84195	2.100%	1.99622	1.30	3.18
getPage	1000	3379	821	9115	16563	33513	2	60595	2.000%	1.94930	5.41	1.48
download	1000	7818	2226	18842	34249	68389	2	77354	1.800%	1.93665	185.00	1.12
return	1000	2845	866	4207	10041	60324	2	76790	1.800%	1.93430	116.25	1.15
U8 - download PDF	1000	14043	7186	35748	40897	73578	6	80508	2.100%	1.92727	305.29	3.73
TOTAL	42000	7271	4844	14705	24060	57044	2	283442	1.152%	68.72189	693.25	53.68

Figure 3: Aggregate Report

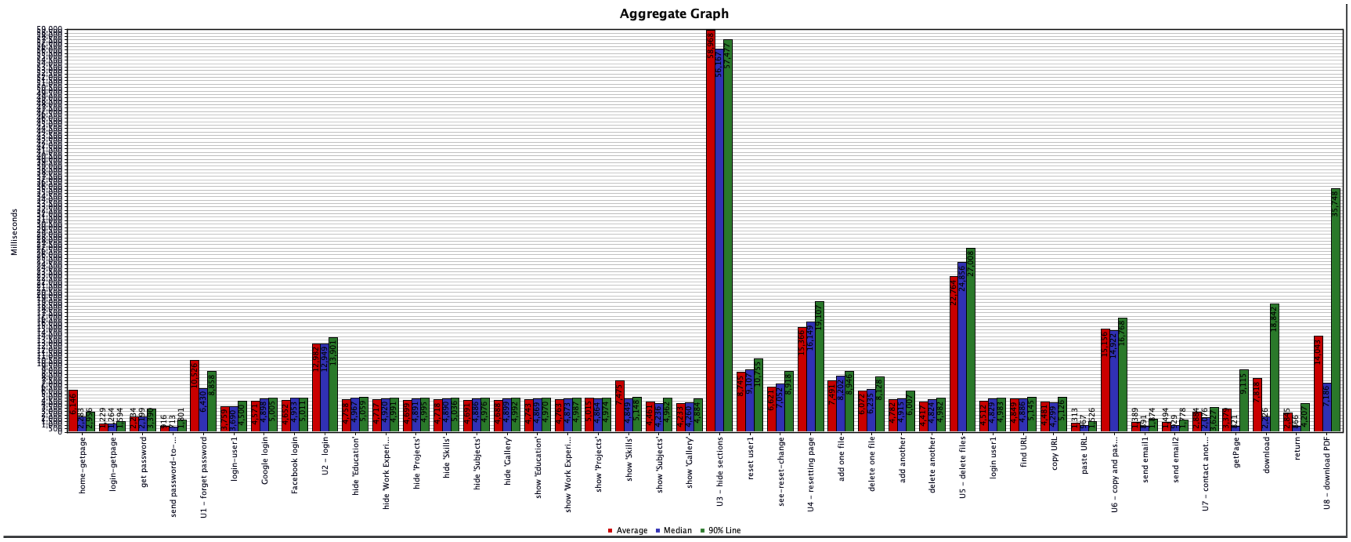


Figure 4: Aggregate Graph

In short, we could see all the functions have successfully met our initial expectation for the performance of the system.