

CS347-LAB4
140050037_140050048

Q1.

nThreads	Throughput	Avg. Response Time
1	46.58	0.135179
2	55.838	0.315
3	57.851	0.286
4	57.933	0.264
5	58.347	0.238
6	58.008	0.215
7	58.033	0.196
8	57.966	0.175
9	58.1405	0.154
10	56.8197	0.137

For no of threads ≥ 3 the throuput achieves saturation by the network bottleneck bandwidth(931Mbps \sim 58 req/sec)

Q2.

nThreads	Throughput(req/s)	Req. served	Req.rejected
1	34.2737	6512	319
2	30.5755	6482	819
3	39.9737	7595	586
4	42.125	9436	31
5	43.1957	9788	62
6	43.1111	9312	28
7	40.25	9016	54
8	48.2131	8823	14
9	42.6343	9211	10
10	37.7009	8445	10

Here since the queue is of limited size, connections are dropped when queue is full and listen buffer times out, thereby network doesnt achieve bottleneck value as no new connections are accepted, but the overall throuput approximately saturates around 43 req/s after nthreads ≥ 4

Also as the queue size increases, the rejection ratio falls as expected. but drastically falls at $n=4$ when it achieves saturatuion in throuput