## All time are in $10^-5$ seconds

**TABLE-1** 

Key	Req1 (first time)	Req2 (second time)	Req3 (third time)	Average Time
Key1	2.09	4.48	2.38	2.98
Key2	2.19	2.40	2.19	2.26
Key3	2.28	2.19	2.31	2.26
Key4	3.98	2.59	3.71	3.42
Key5	3.91	2.59	4.00	3.5
Key6	4.38	2.59	3.09	3.53

## **TABLE-2**

Key	Req1 (first time)	Req2 (second time)	Req3 (third time)	Average Time
Key1	1.38	1.31	2.88	1.85
Key2	2.09	1.50	1.50	1.69
Key3	2.40	1.31	1.20	1.63
Key4	2.70	1.67	1.33	1.59
Key5	1.50	1.59	1.50	1.54
Key6	1.59	1.45	1.3	1.47

Part 1: Since there was no cache in this section, we can see that the response times for the three requests are comparable. Simple client-server architecture is used. The table above provides evidence for this (part 1 -b)

Part 2: The second section, nevertheless, reveals that the initial request takes longer. ompared to the next two requests, to return. This is due to cache in between them. The key value pair is saved in cache when the initial request is sent, and the cache for the second and third requests, returns the item immediately, resulting in less turnaround period. Table 2 provides evidence for this.

## Plagiarism Statement:

We certify that this assignment/report is our own work, based on our personal study and/or research and that we have acknowledged all material and sources used in its preparation, whether they be books, articles, packages, datasets, reports, lecture

notes, and any other kind of document, electronic or personal communication. We also certify that this assignment/report has not previously been submitted for assessment/project in any other course lab, except where specific permission has been granted from all course instructors involved, or at any other time in this course, and that we have not copied in part or whole or otherwise plagiarized the work of other students and/or persons. We pledge to uphold the principles of honesty and responsibility at CSE@IITH. In addition, We understand my responsibility to report honor violations by other students if we become aware of it.

Name: YUVRAJ SINGH SHEKHAWAT

Date: 15/10/2022 Signature: yuvraj