I I T   G O A

CS193 Data Structures and Algorithms Lab

13 Mar 2018

Hashing

The attached file contains the train time table for the indian railway (from http://data.gov.in). It is a list of *comma separated values* (See the wikipage https://en.wikipedia.org/wiki/Comma-separated_values). You can use the *getline(…)* function to read CSV files easily.

The utility we have to build takes a station code (e.g. MAO) and a time in 24 hr format (e.g. 1945) and displays all the trains passing trough the station during that hour (i.e. from 1915 to 2015).

Use a hash table with station codes as keys to implement the above. The exercise includes selecting an appropriate hash table size, as well as a suitable hash function, the choice is left to you. Also print how much time you took to answer the query.

Sample Output

```
bash$./a.out MAO 1945
Number  Name  Src   Dest    Arrival   Departure
12618   MNGLA LKSDP EXP  NZM   ERS   19:30   19:40

Time taken 98724723ns
```

❋