

Exercise 11. Hashing

Input from file: hashing.in

Output on file: hashing.out

Hashing has been one of the most used concepts in computer science. It's been widely used in the field of computer science especially on the aspect of database. With that, you are tasked to create a program that may be used by those who want to know more about hashing. You will create a program accepting a file containing keys to be inserted on the hash table. Then, you are tasked to produce as output a file containing the configuration of the table after all insertion using both open and closed(including linear probing, quadratic probing, and double hashing) methods on hashing (your lab instructor will tell you more about this).

Input format:

The input contains several test cases, each representing the set of keys involved. The input file begins with an integer m ($1 \leq m \leq 10$) representing the total number of test cases. The data for each case begins with an integer n ($1 \leq n \leq 23$) representing the total number of keys. This is followed by n lines of keys ($\text{keys} \geq 1$). (Note that for this exercise the initial size of the hash table is 7)

Output format:

For each test case, output the test case number and the configuration of the hash table for all method. Test cases are separated by a line.

Sample Input:

2	5
3	13
6	21
23	23
13	15
	6

[6] 6

[10] 21

[10] 21