Tecnológico de Monterrey

Competency Evidence

Programming of data structures

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HASH TABLES

The hash tables method is an efficient method used by engineers to store data in a mannered way. The way this method works is that it takes the values the user or the engineer inputs depending on the occasion and stores them in an arranged table that is easy to display the values. One of the benefits that this table brings to the engineer is that it is easy to access the information after the process. This helps the programmer identify the table in a simple way. The time complexity can also be known as the Amortized Time. Another advantage of using this method is that it can resist the use of basic operations like: delete, insert and search which allows the programmer to traverse or modify the list to its will. Now to apply this method to a real life case we can take into consideration the evidence we've been making the past few weeks. This method can help us arrange the IP's in a way that we can access the ones we are looking for in a mannerly way without putting at risk the other data. A way we can fix our mistakes that this program allows us to do is use the collisions that are set up on the program. The collision feature allows us to identify if 2 values get the same index inside the database that is put inside the program. In conclusion this program can be very efficient for the data arrangement for big structures of data and especially for the case of the evidence of the IP's that we are researching about.

Jesus Fong

HASH TABLES

Hash tables are a structure that allows us to arrange the data that we are given to produce a table that has all the values in a mannerly way and that gives us the ability to control what we do with the data that was put into the program without the program causing problems. To give a small summary of the program, this program uses hash functions to arrange the values inside the table with extra features on the program. What feature that is noticeable is the collisions inside the database that is given. What this program does is that it analyzes the collisions of data that is put in and analyzes both pieces of data. Now an advantage that this specific program has is that it is one of the few programs that is easy to access without having any problems. Even if there is a small collision of values the program can still run without a problem to the programmer. Another advantage is the time complexity which would be O(1) access time or as it is called in terms, Amortized Time Complexity. Finally a very important advantage that is implemented inside the program is that it can conduct simple but yet complex actions inside the program. By actions i refer to, the use of the delete feature to delete values inside the program, the search feature which allows to search a specific value inside the table and the insert value which applies before the program starts to run and arranging the table.