Hashing

Objective

The objective of this lab is to understand hashing implementation. Examine the performance of hashing using different hash functions. Estimate big-oh of insertion, search and deletion operations.

Task

Implement hash table using separate chaining to store list of object. Store at least 200 object keys. Follow the properties of good hash function.

Procedure

- Create array to represent table. Each table cell represents a linked list to store student records that hashes to the same index. The implementation of Linked List uses a pair of classes a node and linkedlist class to represent the collection of nodes as a list structure.

```
class Node <T>{
    T data;
    Node next;
    … }

class Linkedlist<T>{
          Node head;
                …      //
    Methods
    }
```

```
Main(){
HashT<Student> Table=new  HashT(20);
}
```

```
public class HashT <T>{
  Linkedlist<T>[] Table;
  HashT(int s){   Table=new Linkedlist[s+(s/3)];    }

public  int  Hash(T  obj){ }
public void insert(T obj){ … }
public Boolean find(T obj) {…}
public void delete(T obj){….}
public void displayTable() { … }
}
```