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Student Grade Management System

C++ program: Create hashmap using nodes. Delete, add, change and counting nodes with pointer.

The functions is listed here:

```
cmd>help
insert name score
    Insert name and score in the grade table.

change name newscore
    Change the score of an existing name.

lookup name
    Look up a name in the table.

remove name
    Remove student by this name.

print
    Prints out all names and scores in the table.

size
    Prints out the number of entries in the table.

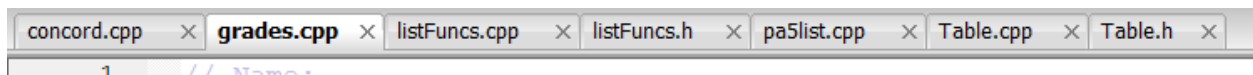
stats
    Prints out statistics about the hash table at this point.

help
    Prints out a brief command summary.

quit
    Exits.

cmd>
```

Classes I created:



Run:

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```
number of buckets: 9973
number of entries: 0
number of non-Empty buckets: 0
longest chain: 0
cmd>
```

Insert names and scores:

```
cmd>insert Tim 90
cmd>insert Elvis 100
cmd>
```

Then change names:

```
cmd>insert Tim 90
cmd>insert Elvis 100
cmd>change Tim 91
cmd>print
Tim          91
Elvis        100
cmd>
```

Then lookup names:

```
cmd>insert Tim 90
cmd>insert Elvis 100
cmd>change Tim 91
cmd>print
Tim          91
Elvis        100
cmd>lookup Elvis
Elvis 100
cmd>
```

Show data size:

```
cmd>size
Number of entries: 2
cmd>
```

Show statistics of the data:

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```
cmd>stats
number of buckets: 9973
number of entries: 2
number of non-Empty buckets: 2
longest chain: 1
cmd>
```