

Data Structure 2019

Lab 06

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Today's Tasks

- Given hashTest.java and MyHash.java
 - MyHash
 - For constructor, accept integer to set size of int array data
 - add(int value)
 - Add value to data[value mod capacity]
 - If there is collision, travel to right side until there is empty slot, and insert
 - If traveled to end of array, travel back to index 0
 - If data array is full, do not bother adding elements
 - remove(int value)
 - Remove value from data
 - Search from element from data[value mod capacity]
 - If element doesn't exist, just exit method
 - You may spend $O(\text{array.length})$
 - toString
 - Report every element in array
 - toString2
 - Report each slot of array is empty or not
 - 1 as stored, 0 as empty

Expected Output

Capacity is 17

```
javac hashTest.java
```

```
java hashTest
```

```
34 0 45 6 23 7 28 12 29 11 30 33
```

```
1 1 1 0 0 0 1 1 1 0 0 1 1 1 1 1
```

```
34 45 6 23 7 28 12 29 11 30 33
```

```
1 0 1 0 0 0 1 1 1 0 0 1 1 1 1 1
```

```
34 51 45 52 53 54 6 23 7 55 56 28 12 29 11 30 33
```

```
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
```