GIT Department of Computer Engineering
CSE 222/505 - Spring 2021 Homework 5 Report

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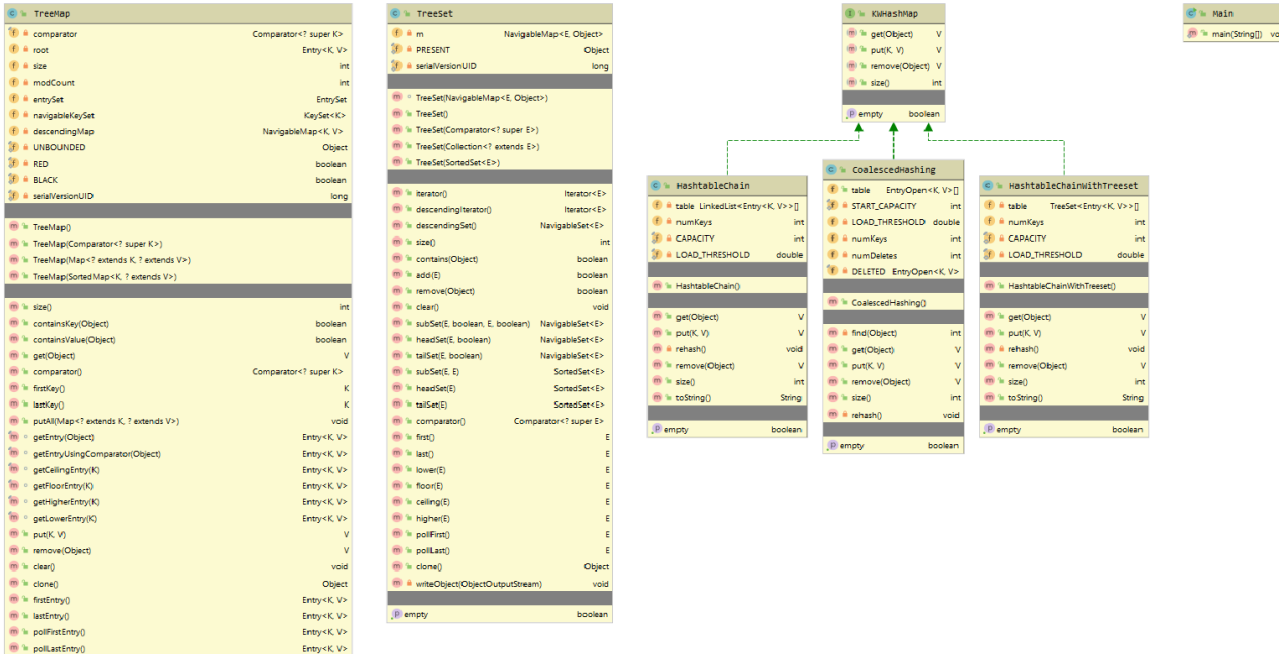
CLASS DİAGRAM



Calculate Performance

For 10 capacity:

```
 HashtableChain run time  4802200
 HashtableChainWithTreeset run time 1640800
CoalescedHashing run time 1262600
```

For 100 capacity:

```
 HashtableChain run time  2046900
 HashtableChainWithTreeset run time 1984000
CoalescedHashing run time 1093200
```

For 1000 capacity:

```
  HashtableChain run time  4221400
  HashtableChainWithTreeset run time 1742000
 CoalescedHashing run time 3017100
```

INPUT

Show add index 3 two element access for next also access table[4]
index[3].next=table[4]

```
    CoalescedHashing a =new CoalescedHashing();
a.put(1,2);
a.put(2,32);
a.put(3,22);
a.put(47,21);
a.put(53,23);
a.put(62,24);
a.remove( key: 47);

final long duratio = System.nanoTime() - startTim;
System.out.println("CoalescedHashing run time "+ duratio);
int i=0;
while(i<a.table.length)
{
    if(a.table[i]==null)
    {
        System.out.println("null");
    }
    else
    {
        System.out.println(a.table[i].getValue());

    }
    i++;
}
System.out.println("Enter key '3' :"+a.table[3].getValue());
System.out.println("Enter key '53' :"+a.table[3].getNext().getValue());


}
```

```
System.out.println("Enter key '53' :"+a.table[3].getNext().getValue());
System.out.println("Enter key '53' :"+a.table[4].getValue());
```

SHOW SAME VALUE

OUTPUT

```
 HashtableChain run time  2424900
 HashtableChainWithTreeset run time 1993600
CoalescedHashing run time 3669200
null
2
32
22
23
null
24
24
null
null
Enter key '3' :22
Enter key '53' :23
```

For capacity 10

Table ELEMENTS

3 and 53 write same index so
table[3]=22 and table[3].next=23