Task 2.2 testing

This is a testing scenarios for task2

In this test, we set the size of the bucket be 2, insert 6 tuples into it and delete two of them.

The ExtHashIndex.java has the override function toString() to print out current operation.

From the result we can see that the detailed operation of each step

Modify field studentid to val indicate the start of an insertion or deletion

If the insertion causes split, we can see the process of delete all elements in that bucket and reinsert them.

Below is the result in console:

creating new database

transaction 1 committed

new transaction: 2

transaction 2 committed

new transaction: 3

transaction 3 committed

new transaction: 4

Modify field studentid to val 0

=================================================

Do insertion on val=0 rid=[0, 0]

Global Depth =0

=================================================

Modify field name to val Bosh

Modify field major to val basketball

transaction 4 committed

new transaction: 5

Modify field studentid to val 1

=================================================

Do insertion on val=1 rid=[1, 0]

Global Depth =0

=================================================

Modify field name to val Wade

Modify field major to val basketball

transaction 5 committed

new transaction: 6

Modify field studentid to val 2

=================================================

Do deletion on val=0 rid=[0, 0]

Global Depth =1

=================================================

=================================================

Do deletion on val=1 rid=[1, 0]

Global Depth =1

=================================================

=================================================

Do insertion on val=0 rid=[0, 0]

Global Depth =1

=================================================

=================================================

Do insertion on val=1 rid=[1, 0]

Global Depth =1

=================================================

=================================================

Do insertion on val=2 rid=[2, 0]

Global Depth =1

=================================================

Modify field name to val King

Modify field major to val basketball

transaction 6 committed

new transaction: 7

Modify field studentid to val 3

=================================================

Do deletion on val=1 rid=[1, 0]

Global Depth =2

=================================================

=================================================

Do deletion on val=2 rid=[2, 0]

Global Depth =2

=================================================

=================================================

Do insertion on val=1 rid=[1, 0]

Global Depth =2

=================================================

=================================================

Do insertion on val=2 rid=[2, 0]

Global Depth =2

=================================================

=================================================

Do insertion on val=3 rid=[3, 0]

Global Depth =2

=================================================

Modify field name to val Kobe

Modify field major to val basketball

transaction 7 committed

new transaction: 8

Modify field studentid to val 4

=================================================

Do deletion on val=0 rid=[0, 0]

Global Depth =2

=================================================

=================================================

Do deletion on val=2 rid=[2, 0]

Global Depth =2

=================================================

=================================================

Do deletion on val=3 rid=[3, 0]

Global Depth =2

=================================================

=================================================

Do insertion on val=0 rid=[0, 0]

Global Depth =2

=================================================

=================================================

Do insertion on val=2 rid=[2, 0]

Global Depth =2

=================================================

=================================================

Do insertion on val=3 rid=[3, 0]

Global Depth =2

=================================================

=================================================

Do insertion on val=4 rid=[4, 0]

Global Depth =2

=================================================

Modify field name to val TMac

Modify field major to val basketball

transaction 8 committed

new transaction: 9

Modify field studentid to val 5

=================================================

Do deletion on val=1 rid=[1, 0]

Global Depth =3

=================================================

=================================================

Do deletion on val=2 rid=[2, 0]

Global Depth =3

=================================================

=================================================

Do insertion on val=1 rid=[1, 0]

Global Depth =3

=================================================

=================================================

Do insertion on val=2 rid=[2, 0]

Global Depth =3

=================================================

=================================================

Do insertion on val=5 rid=[5, 0]

Global Depth =3

=================================================

Modify field name to val Shap

Modify field major to val basketball

transaction 9 committed

new transaction: 10

=================================================

Do deletion on val=4 rid=[4, 0]

Global Depth =3

=================================================

transaction 10 committed

new transaction: 11

=================================================

Do deletion on val=2 rid=[2, 0]

Global Depth =3

=================================================

transaction 11 committed

new transaction: 12

transaction 12 committed

BoshWadeKobeShap