**Tugas Hashing**

Mata Kuliah:Struktus Data dan Alrgoritma

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**SINGARAJA**

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Using Linear Probing method, insert keys 32, 53, 22, 92, 17, 34, 24, 37, and 56 into a hash table of Tsize = 10

h(32) = 2

h(53) = 3

h(22) = 2, collision with 32

* h(22) = 3, collision with 53
* h(22) = 4

h(92) = 2, collision with 32

* h(92) = 3, collision with 53
* h(92) = 4, collision with 22
* h(92) = 5

h(17) = 7

h(34) = 4, collision with 22

* h(34) = 5, collision with 92
* h(34) = 6

h(24) = 4, collision with 22

* h(24) = 5, collision with 92
* h(24) = 6 collicion with 34
* h(24) = 7, collisison with 17
* h(24) = 8

h(37) = 7, collision with 17

* h(37) = 8, collision with 24
* h(37) = 9

h(56) = 6, collision with 34

* h(56) = 7, collision with 17
* h(56) = 8, collisiom with 24
* h(56) = 9, collision with 37
* h(56) = 0

|  |  |
| --- | --- |
| Hash Index | Key |
| 0 | 56 |
| 1 | - |
| 2 | 32 |
| 3 | 53 |
| 4 | 22 |
| 5 | 92 |
| 6 | 34 |
| 7 | 17 |
| 8 | 24 |
| 9 | 37 |

Longs Hops = 5

Using Quadratic Probing method, insert keys 0, 15, 16, 20, 30, 25, 26, and 36 into a hash table of Tsize = 10

h(0) = 0

h(15) = 5

h(16) = 6

h(20) = 0, collision with 0

* h(20) = 1

h(30) = 0, collision with 0

* h(30) = 1, collision with 20
* h(30) = 4

h(25) = 5, collision with 15

* h(25) = 6, collision with 16
* h(25) = 9

h(26) = 6, collision with 16

* h(26) = 7

h(36) = 6, collision with 16

* h(36) = 7, collision with 26
* h(36) = 0, collision with 0
* h(36) = 5, collision with 15
* h(36) = 2

|  |  |
| --- | --- |
| Hash Index | Key |
| 0 | 0 |
| 1 | 20 |
| 2 | 36 |
| 3 | - |
| 4 | 30 |
| 5 | 15 |
| 6 | 16 |
| 7 | 26 |
| 8 | - |
| 9 | 25 |

Longest Hops = 5