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Kelas : A

TUGAS HASHING

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

Tsize : 10

Input : 32, 53, 22, 92, 17, 34, 24, 37, 56

* h(32) = 32 mod 10 = 2
* h(53) = 53 mod 10 = 3
* h(22) = 22 mod 10 = 2, collision with 32
* h1(22) = (22 + 1) mod 10 = 3, collision with 53
* h2(22) = (22 + 2) mod 10 = 4
* h(92) = 2, collision with 32
* h1(92) = (92 + 1) mod 10 = 3, collision with 53
* h2(92) = (92 + 2) mod = 4, collision with 22
* h3(92) = (92 + 3) mod 10 =5
* h(17) = 17 mod 10 = 7
* h(34) = 34 mod 10 = 4, collision with 22
* h1(34) = (34 + 1) mod 10 = 5, collision with 92
* h2(34) = (34 + 2) mod 10 = 6
* h(24) = 24 mod 10 = 4, collision with 22
* h1(24) = (24 + 1) mod 10 = 5, collision with 92
* h2(24) = (24 + 2) mod 10 = 6 collicion with 34
* h3(24) = (24 + 3) mod 10 = 7, collisison with 17
* h4(24) = (24 + 4) mod 10 = 8
* h(37) = 37 mod 10 = 7, collision with 17
* h1(37) = (37 + 1) mod 10 = 8, collision with 24
* h2(37) = (37 + 2) mod 10 = 9
* h(56) = 56 mod 10 = 6, collision with 34
* h1(56) = (56 + 1) mod 10 = 7, collision with 17
* h2(56) = (56 + 2) mod 10 = 8, collisiom with 24
* h3(56) = (56 + 3) mod 10 = 9, collision with 37
* h4(56) = (56 + 4) mod 10 = 0

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

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

Tsize = 10

Input = 0, 15, 16, 20, 30, 25, 26, 36

* h(0) = 0
* h(15) = 5
* h(16) = 6
* h(20) = 0, collision with 0h(20) = 1
* h(30) = 0, collision with 0
* h1(30) = 1, collision with 20
* h2(30) = 4
* h(25) = 5, collision with 15
* h1(25) = 6, collision with 16
* h2(25) = 9
* h(26) = 6, collision with 16
* h1(26) = 7
* h(36) = 6, collision with 16
* h1(36) = 7, collision with 26
* h2(36) = 0, collision with 0
* h3(36) = 5, collision with 15
* h4(36) = 2

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