به نام خدا

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T |  |  |  |  |  |  |  |  |  |

ord(A) = 65, h(x) = (ord(x) + 1 -1) mod 10 = ord(x) mod 10

T 🡪 h(T) = ord(T) mod 10 = (20) mod 10 = 0

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K |  |  |  |  |  |  |  |  |

K 🡪 h(K) = ord(K) mod 10 = 11 mod 10 = 1

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K | J |  |  |  |  |  |  |  |

J 🡪 h(J) = ord(J) mod 10 = 10 mod 10 = 0 🡪 A[0] is full 🡪 (linear probing) 🡪 0+1=1 🡪 A[1] is full 🡪 1+1=2 mod 10 = 2 🡪 A[2] is empty

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K | J |  |  |  |  |  |  | S |

S 🡪 h(S) = ord(S) mod 10 = 19 mod 10 = 9

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K | J |  |  |  |  |  | R | S |

R 🡪 h(R) = ord(R) 10 = 18 mod 10 = 8

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K | J | C |  |  |  |  | R | S |

C 🡪 h(C) = ord(C) mod 10 = 3 mod 10 = 3

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K | J | C |  |  | P |  | R | S |

P 🡪 h(P) = ord(P) mod 10 = 16 mod 10 = 6

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K | J | C |  | Y | P |  | R | S |

Y 🡪 h(Y) = ord(Y) mod 10 = 25 mod 10 = 5

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K | J | C | N | Y | P |  | R | S |

N 🡪 h(N) = ord(N) mod 10 = 14 mod 10 = 4

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| T | K | J | C | N | Y | P | M | T | K |

M 🡪 h(M) = ord(M) mod 10 = 13 mod 10 = 3 🡪 A[3] is full 🡪 3+1=4 🡪 A[4] is full 🡪 … 🡪 6+1=7 🡪 A[7] is empty

Clustering اول به دلیل اشغال بودن ایندکس 0 hash table رخ داده و با linear probing ، J در ایندکس دوم قرار می گیرد. (رنگ زرد)

Clustering دوم به دلیل اشغال بودن و اشاره کردن hash function دو ورودی C و M به یک موقعیت (ایندکس 3) با linear probing M در خانه ی هشتم (ایندکس 7) قرار می گیرد. (رنگ قرمز)