|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Hash1 | | Hash2 | |
|  | Number of collisions | Average probes | Number of collisions | Average probes |
| Chaining Method | 2174 | 1.507 | 2097 | 1.428 |
| Double Hashing | 7238 | 1.084 | 6902 | 1.048 |
| Custom Probing | 4515 | 1.047 | 4531 | 1.024 |

**Performance of various techniques for collision resolution with two different hash functions.**

For n=20011

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Hash1 | | Hash2 | |
|  | Number of collisions | Average probes | Number of collisions | Average probes |
| Chaining Method | 1148 | 1.228 | 1140 | 1.218 |
| Double Hashing | 2920 | 1.013 | 2865 | 1.013 |
| Custom Probing | 1643 | 1.007 | 1696 | 1.007 |

For n=40009

In the first hash function I calculated hash value as below:

(s[i]-‘a’+1)\*powerOfSeven

And added all values of individual character value with mod size.

Here with the increment of i powerOfSeven increses.

In the second hash function I calculated hash value as below:

(s[i]-‘a’+1)\*powerOfSeven

And added all values of individual character value with mod size.

Here with the decrement of i powerOfSeven increses.

For the auxiliary function, I used size- hash%size.