

## 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	2174	1.507	2097	1.428
Double Hashing	7238	1.084	6902	1.048
Custom Probing	4515	1.047	4531	1.024

For n=40009

	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

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

$(s[i] - 'a' + 1) * \text{powerOfSeven}$

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

Here with the increment of i powerOfSeven increases.

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

$(s[i] - 'a' + 1) * \text{powerOfSeven}$

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

Here with the decrement of  $i$   $\text{powerOfSeven}$  increases.

For the auxiliary function, I used  $\text{size} - \text{hash} \% \text{size}$ .