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My method h'(k) to convert String name into integer:

```
hh = 1
for x in k:
    hh *= ord(x)
h = hh % self.size
```

quadratic probing

c1	c2	the minimum table size	the average number of steps(<5)
1	1	2539	4.8184
2	0.5	2731	4.7928
3	0.3	2543	4.8784

double hashing

h''(k)	the minimum table size	the average number of steps
g = ((5**0.5) -1)/2 round(self.size * (g * h - round(g*h)))	2531	4.9052
3 - (h % 3)	3187	4.2088
1 + (round(h/self.size) % (self.size - 1))	2851	4.514

conclusion:

The hypothesis is not true. Double Hashing won't allows us to use smaller tables than Quadratic Probing does. The essential factor for a smaller table is good hash functions. For example, if the second hash function of double hashing is (3 - (h % 3)), the table size will be bigger than the table of quadratic probing with c1 = 2, c2 =0.5. Therefore, the collision solution won't have a great impact on the size of the table.

PS: since the table size and the average number of steps are not always in linear relation, it's hard to find the exact smallest table size to achieve the steps < 5. I just can find the approximate one.