**EX8: In Class Exercise in place of HW8 [10 points]— no late work is accepted**

**3 people per group**

**Work on Week 13 Tuesday**

**Presentation next lecture**

You have approx. 350 customers. N = 350.

You can obtain information about each customer such as name, phone number, SSN, address, items they like to buy, etc. and assign customer number.

(note: customer numbers will not be reused/recycled as customers go away)

You want to look up their records using some key

that will be used to hash into the customer table.

Write the answers on a sheet of paper.

Add your full names at the top of the sheet now.

1. what **key** do you think is usually good to use to look up a customer?

what does it look like **(give an example)**

1. how will you **transform** this key into a slot number and **defend your choice**

**Straight mod ts?**

**Folding and mod ts?**

**Reverse folding and mod ts?**

**Square and take the middle part?**

**Something unique?**

1. what is the **table size** and defend your choice

**(prime number? Avoided Base^small? Load factor is 80%?? Answer these.)**

1. informally analyze under what circumstance **collisions** will occur

**Give reasons and examples!!!!!!**

**Please submit the answer sheet with your names before you leave.**

**I will ask each group to present their ideas next time!!!!**

Yes about 350 people at any point but they will be different people

(i.e. some customers will leave and new ones will come)

e.g. cs311 will always have 30 people but different each semester.