- Design a food rating system that

  1.) Changes rating of a food item
  2.) Returns highest rated food for a cuisine group.
  3.) If ratings are equal, return the food in smallest lexicographical order.

1st thought was I could have

map<cuisine, largestFood>

The map would store the highest rated food for given cuisine.

FLAW

If the highest rated cuisine rating drops to say 0, how do we find the second highest?.

We need a priority queue to maintain order of ALL ratings.
or ordered data structure

1.) Insert all foods, rating, cuisine into a map.

Map<Food, FoodType>

2.) Insert all foods into ordered set.

map<cuisine, set<FoodType>

This maps cuisine to ordered container of FoodType for specific cuisine type.

The highest rating can be found:

```
ms[cuisine].begin()→food
```

★ Will need to do bounds checking

The change rating can be found:

```
foodtype = mf[food]

ms[foodtype.cuisine].erase(foodtype)
foodtype.rating = newrating
ms[foodtype.cuisine].insert(foodtype)
```

For constructor, just insert into mf or ms

[mf = map to food, ms = map to set]