

Lecture 7: Immutable lists

Wednesday, September 21, 2022 1:35 PM

Example of data in memory:

- Person class w/ name & chess rating
- (mutable) Tourn. Class w/ list of competitors
- Say tourn1 and tourn2 are initialized

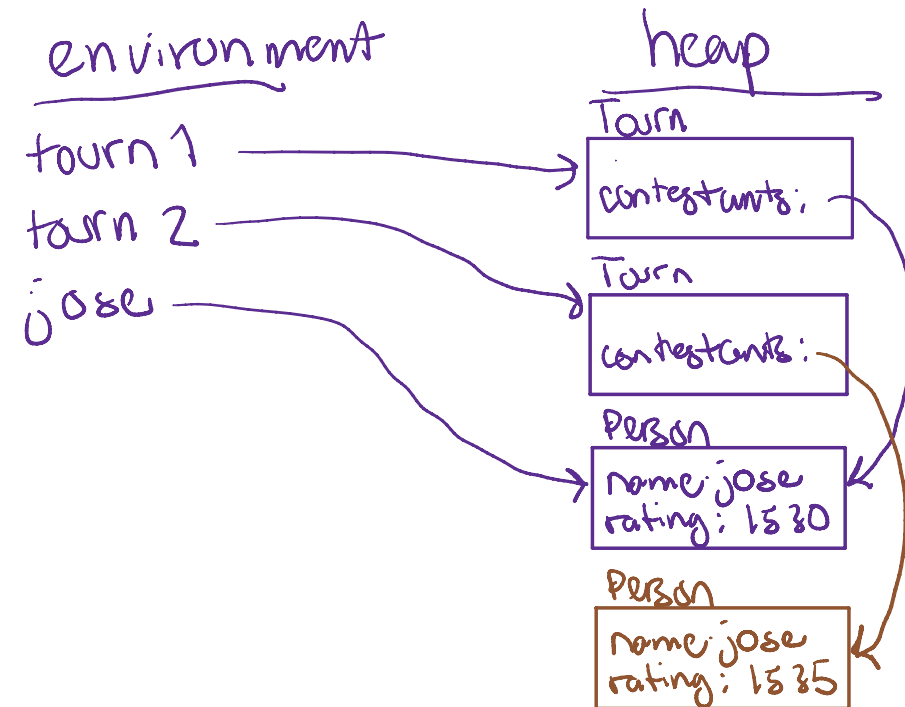
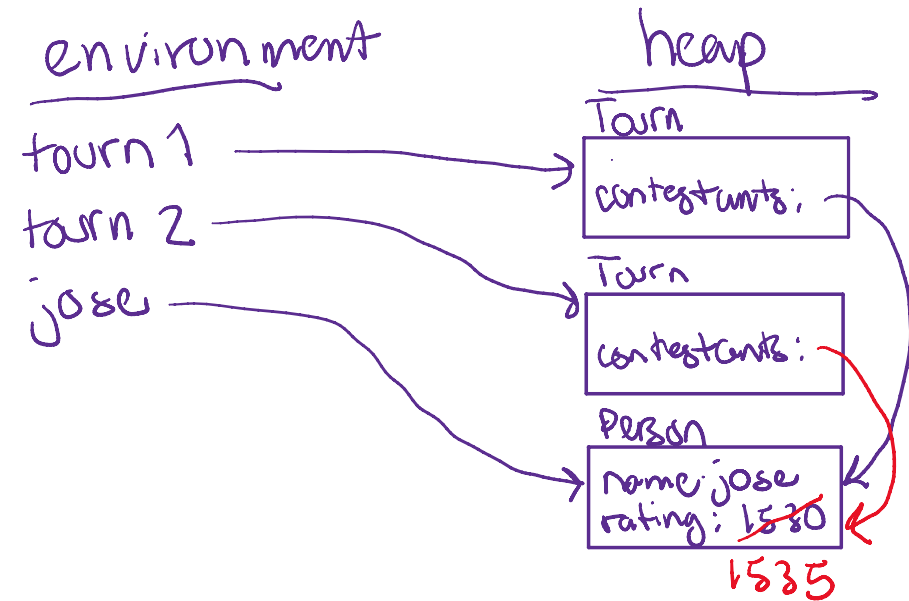
```
Person jose = new Person("jose", 1530);  
tourn1.addContestant(jose)
```

If Person class is mutable:

```
jose.rating = 1535;  
tourn2.addContestant(jose)  
// Both tourn1, tourn2 see new rating (see mem diagram)
```

If Person class is immutable:

```
// cannot write jose.rating = 1535, need to make a new  
Person  
tourn2.addContestant(new Person("jose", 1535))  
// only tourn2 sees new rating (see memory diagram)  
-
```



```
// Immutable lists in memory  
L1 = new SimpleList(4, new SimpleList(3, null));  
L2 = new SimpleList(9, L1);
```

