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| Class | Fields (Variables) | Methods |
| Shoe | 1. protected FINAL String name; 2. protected ShoeSizeList shoeSizeList; 3. protected int totalQuantity | **This class will not have any methods, just the three-argument constructor so that data can be accessed directly instead of using getters or setters.** |
| ShoeSizeList | 1. double shoeSize; 2. int quantity; | 1. **void add(double key, int value)** 2. **void decrease(double key, int value) throws QuantityTooLargeException, ShoeSizeNotFoundException** 3. **List<String> getKeyList()** 4. **int get(double key)** 5. **String traversal()** |
| ShoeTable | 1. private HashArray shoeTable; | Implements all four method described in ShoeTableADT |
| HashArray | See p3a | See p3a |
| Interfaces | Fields (Variables) | Description |
| ShoeTableADT | 1. void addShoe(int productNumber, String name, double shoeSize, int quantity) 2. ShoeInfo lookupShoe(int productNumber) throws KeyNotFoundException 3. String checkSize(int productNumber) throws KeyNotFoundException 4. void deleteShoe(int productNumber, double shoeSize, int quantity) throws KeyNotFoundException, QuantityTooLargeException, ShoeSizeNotFoundException 5. List<String> getSizeList(int productNumber) 6. int getQuantity(int productNumber, double shoeSize) | 1. In addShoe methods, if productNumber already exits, add shoeSize and quantity to that Shoe class. If productNumber does not exit, consturuct a new Shoe class 2. Class ShoeInfo: contains three parameters, int productNumber, String name, int totalQuantity 3. checkSize returns a String like “7.5(3) 9.5(8) 10(4) 10.5(2)” 4. delete just decrease quantity of that shoeSize. If quantity to be deleted is larger than current, it will return false 5. Note elements in list are String, when delete you may need to convert them into double by Double.parseDouble(String) |