Module 1 - Lecture 8

# Collections Part 2

# Review

- ArrayLists
- Queues
- Stacks
- Primitive Wrapper classes
- For-each loop

# Question...

Who has performed a Google search?

Who has used a dictionary to look up the definition of word?

Who has used the index in a book?

# Map<K,V>

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- Key-Value pairs
- Ordering is not consistent
- Duplicate keys are not allowed
- Duplicate values are allowed

# Map<K,V>

**Create**

```
Map<String,Integer> nameAgeMap = new HashMap<String,Integer>();
```

**Add elements**

```
nameAgeMap.put("Sally", 23);
nameAgeMap.put("Bobby", 8);
```

**Remove elements**

```
nameAgeMap.remove("Bobby");
```

**Check if exists**

```
nameAgeMap.containsKey("Bobby");
```

**Get a value**

```
Integer sallyAge = nameAgeMap.get("Sally");
```

# Let's Code!

# Question...

How do you keep track of a unique list of stuff?

# Set<T>

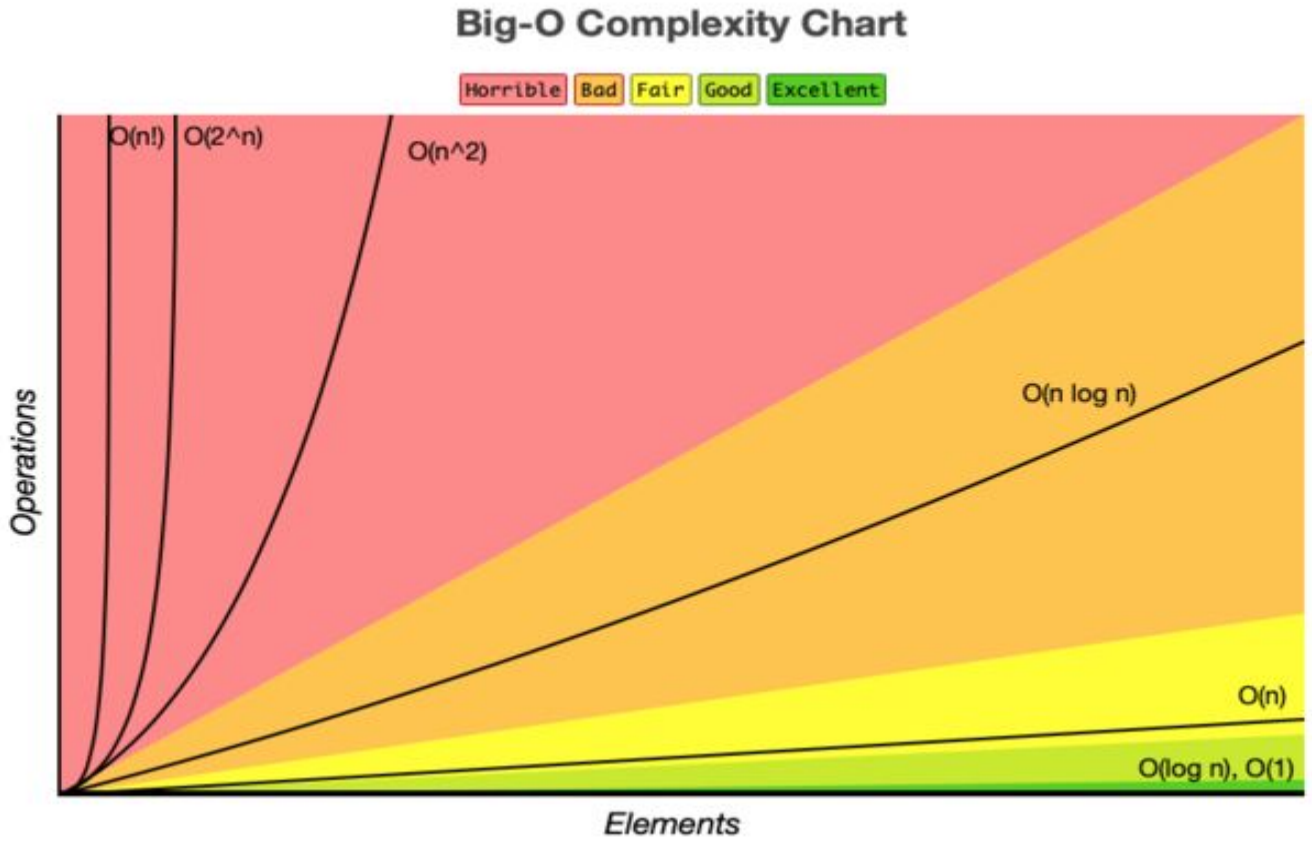
# Set<T>

- A list that contains no duplicate elements
  - Can contain at most 1 null element
  - Cannot contain two elements where element1.equals(element2) returns true

- Ordering is not consistent

# Let's Code!

# Algorithmic Complexity



# Reading

- Module 1
  - Classes and Encapsulation

# QUESTIONS?