# **Other Collections**

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## **Opening Discussion**

- Minute essay comments:
  - Renaming in Eclipse.
  - Tabs in Eclipse.
  - Where can you learn about Any, AnyRef, etc.? Pg. 413
  - Details of implicit conversions beyond this course.
    Will be in an appendix.
  - Limiting the sort to numeric types.
  - Parametric polymorphism is polymorphism you get by having a type parameter.

# **Finishing Sorts**

Do sort with comparison function first.

#### scala.collection

- http://www.scala-lang.org/docu/files/collections-api/
- The collection API in Scala is really powerful.
  This is a big part of what makes the language so great to use.
- In the first semester we focus on basic sequence types.
- We gain a lot of power by adding Map, Set, and Buffer.

#### Map

- Stores (key, value) pairs. Let's you do fast lookup by key.
- Two type parameters.
- A sequence is indexed by Int and need "all slots filled".
- A Map can be indexed by anything and can be sparse.
- You should only use immutable values for keys.

#### Set

- Based on math idea.
- Order doesn't matter.
- Elements have to be unique.

### Buffer

• Like an array with the ability to grow and shrink.

## **Drawing Program**

- Let's add more code do the drawing program.
- DrawTransform is a great place for a Buffer.
- The command processor is a great example of a place where a Map can come in handy.

## Minute Essay

- Questions?
- How do you see various collections being used in your projects?
- We have TA/budget issues with the department so I want to survey how many of you feel you would benefit from having Chris as the TA for this course.