

Implementing Selection Sort

Module Learning Outcomes / Resources10 min

Introduction1 min

Developing an Algorithm4 min

Translating to Code3 min

In Place9 min

Efficiency5 min

Summary1 min

Programming Exercise: Implementing Selection Sort10 min

Practice Quiz: Implementing Selection Sort5 questions

Sorting at Scale

Review

Earthquakes: Sorting Algorithms Module

In this module, you will continue using real earthquake data to explore several sorting algorithms. You will learn how to implement a selection sort and a bubble sort, then be introduced to a Java method Collections.sort, which sorts with much greater efficiency. By the end of this module, you will be able to:

- implement several sorting algorithms from scratch,
- use efficient pre-existing sorting classes,
- modify a class’s compareTo method to choose the criteria by which objects of that type are ordered, and
- write classes that implement the Comparator interface to create interchangeable sorting criteria.

More Course Resources

<http://www.dukelearntoprogram.com/course4/index.php> - This website of programming resources contains pages for each course in the Duke Java Programming specialization. The link above for this course is where you will go to:

- Download the custom version of the BlueJ environment;
- Find project resources, such as example code from the lecture videos;
- Download images and data files for the programming exercises; and
- See documentation for the custom classes developed for this course.

Lecture Slides

Implementing Selection Sort

SelectionSortIntroduction.pdf

DevelopingAnAlgorithm.pdf

InPlace.pdf

Efficiency.pdf

SelectionSortSummary.pdf

Sorting at Scale

Comparable.pdf

Comparator.pdf

SortingAtScaleSummary.pdf

Complete

