

(for week starting 13 March)

1. Reflect on your own experiences of using designed objects both in the physical world and on the computer. For each of the categories below, think of an example that you consider to be well designed, and one that you think is badly designed.

- A physical object or gadget (mechanical or electronic)
- A software program
- A website

(Good design is more common than you might think. It can be hard to spot, because well-designed objects are sometimes so obvious, intuitive, and easy-to-use that you do not even notice that you are using something new. Bad design can usually be spotted easily by the frustration that arises when it is unclear how to use an object, or it behaves unexpectedly. If you generally find it easy to use new gadgets, then perhaps you can draw on the experiences of a less technically-minded friend or family member.)

Note down your examples and bring your notes to the tutorial. Be prepared to explain what you thought was well or poorly designed to the others in your tutorial group. Can you suggest how the badly designed objects could be improved?

2. Trace a walkthrough of *selection sort* with this array of values:

−7 6 8 7 5 9 0 11 10 5 8

3. Trace a walkthrough of *merge sort* with this array of values:

9 0 11 10 5 8 −7 6 8 7 5

(Questions 2-4 adapted from Horstmann, *Java for Everyone*, Chapter 14)