Study questions for Lecture 13 - Answers

1. What is a factory class?

This is a class with a create() method. It may have parameters, so that it returns instances of different subclasses depending on their values.

2. What are the two inheritance hierarchies in the factory pattern. Briefly describe their relationship?

a) The first is the program or system, which is abstract with respect to the type I of some object(s). Consequently, it is written with interfaces and a factory method for that type.

b) The second is the interface abstract type I. When we subclass this with a concrete type C, we can at the same time subclass the program in a) to replace the abstract factory method with a concrete method that returns objects of type C. The factory method type is not changed. Since C is of type I, there is no problem.