1. 1. **Abstraction** is the principle of hiding all but the relevant data about an object in order to reduce complexity and increase efficiency. (Also encapsulation and inheritance)
   2. An **Immutable Class** is one that is unable to be changed by itself or other classes. To make a class immutable in java we set all its fields private, declare the class and all mutable fields final. Create a deep copy in the constructor and perform cloning with getter methods as well as not providing setters.
   3. The **Factory Method** solves the issue of abstracting creation of similar classes in a function. For instance, if we wanted to create multiple instances of a certain class or interface but wanted to hide the actual specifics of how the class is made, we would use a factory.
   4. The pipeline takes some collection of people and creates a stream mapping each person to the **plague** variable they contain, filters this stream to only contain plagues with more than 1 million deaths, maps these plagues to their plague name and then returns this collection as a list of Strings. In a real world example this could be used by a reporter reporting on COVID-19 wanting to get a quick list of all the most deadly plagues.