Run 1: No error

Run 2: Error

C:\Users\Jennifer\.jdks\openjdk-17.0.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2.3\lib\idea\_rt.jar=65194:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2.3\bin" -Dfile.encoding=UTF-8 -classpath "C:\Users\Jennifer\Documents\masters\244P Concurrent\Module 3\ex3.2\out\production\ex3.2" VectorTest

Last:

Exception in thread "Getter" java.lang.ArrayIndexOutOfBoundsException: Array index out of range: 0

at java.base/java.util.Vector.get(Vector.java:750)

at VectorTest.getLast(VectorTest.java:15)

at VectorTest$1.run(VectorTest.java:31)

at java.base/java.lang.Thread.run(Thread.java:833)

Process finished with exit code 0

**Notes**:

* If we are in getLast(), it finds the last element, before it can run people.get(lastIndex), deleteLast() may have deleted the last index with people.remove(lastIndex);

Brain storm: To avoid this from happening, we can add “locks” just like the cars on the bridge?

Chapter 5

5.1

Solution:

Add the keyword “synchronized” to addPerson(), deleteLast(), getLast (). So now only one of these functions can be running at a time.

Other threads that need to access the collection will block until the iteration is complete; (book)