Terminal Operations Challenge

In this challenge, you'll use the terminal operations shown on this slide.

You'll be using these, to answer some questions about a series of students.

It contains a Student class with demographic data.

Return Type	Terminal Operations
`long`	`count()`
`DoubleStatistics`	`summaryStatistics()`
`boolean`	`allMatch(Predicate<? super T> predicate)`
`boolean`	`anyMatch(Predicate<? super T> predicate)`
`boolean`	`noneMatch(Predicate<? super T> predicate)`

Terminal Operations Challenge

This class has a factory method, to generate a new instance of a Student, using random data.

This factory method will also generate some random activity, for each course passed as an argument, to the Student constructor.

Return Type	Terminal Operations
`long`	`count()`
`DoubleStatistics`	`summaryStatistics()`
`boolean`	`allMatch(Predicate<? super T> predicate)`
`boolean`	`anyMatch(Predicate<? super T> predicate)`
`boolean`	`noneMatch(Predicate<? super T> predicate)`

The Terminal Operations Challenge

Create a source for a stream of Students.

Use the static method on Student as the Supplier.

Use a large enough number to get a variety of Student data.

Use a combination of the intermediate and terminal operations we've covered so far, to answer the following questions.

- How many male and female students are in the group?
- How many students fall into the three age ranges, less than age 30, between 30 and 60, over 60 years old.

The Terminal Operations Challenge

- Use summaryStatistics on student's age, to get a better idea of how old the student population is.
- What countries are the students from? Print a distinct list of the country codes.
- Are there students that are still active, that have been enrolled for more than 7 years? Use one of the match terminal operations to answer this question.
- Next, select 5 of the students above, and print their information out.