

Review Test Submission: Homework 5

User	Brittany Sifford
Course	Java Programming (Intermediate) (92759)
Test	Homework 5
Started	3/3/24 10:13 PM
Submitted	3/4/24 10:09 AM
Due Date	3/19/24 11:59 PM
Status	Completed
Attempt Score	40 out of 40 points
Time Elapsed	11 hours, 55 minutes
Results Displayed	All Answers, Submitted Answers, Correct Answers

Question 1


1 out of 1 points

The new language and library capabilities that support functional programming were added to Java as part of Project _____.

Selected Answer:  Lambda

Answers: Utilitarian

Upsilon

 Lambda

Utility

Question 2

1 out of 1 points


The basic generic functional interface _____ in package java.util.function contains method test that takes a T argument and returns a boolean. Tests whether the T argument satisfies a condition.

Selected Answer:  Predicate<T>

Answers: Consumer<T>

Function<T,R>

Supplier<T>

 Predicate<T>

Question 3

1 out of 1 points

Intermediate Stream operation _____ results in a stream with the specified number of elements from the beginning of the original stream.

Selected Answer: ☒ limit

Answers:

- ☐ distinct
- ☐ map
- ☐ filter
- ☒ limit

Question 4

1 out of 1 points

Map method entrySet returns a Set of Map.Entry objects containing the Map's _____.

Selected Answer: ☒ key–value pairs

Answers:

- ☐ values
- ☐ keys
- ☐ index
- ☒ key–value pairs

Question 5

1 out of 1 points

IntStream method _____ performs the count, min, max, sum and average operations in one pass of an IntStream's elements and returns the results as an IntSummaryStatistics object (package java.util).

Selected Answer: ☒ summaryStatistics

Answers:

- ☐ allStatistics.
- ☐ completeStatistics.
- ☐ entireStatistics.
- ☒ summaryStatistics

Question 6

1 out of 1 points

By default, method sorted uses _____.

Selected Answer: ☒ the natural order for the stream's element type

Answers:

ascending order



the natural order for the stream's element type

descending order

the order specified in a command-line argument

Question 7

1 out of 1 points

A lambda expression represents a(n) _____ method—a shorthand notation for implementing a functional interface.

Selected Answer: ☒ anonymous

Answers:

functional

unnamed

undesigned



anonymous

Question 8

1 out of 1 points

Stream mutable reduction operation _____ creates a new collection of elements containing the results of the stream's prior operations.

Selected Answer: ☒ collect

Answers:

combine

accumulate

gather



collect

Question 9

1 out of 1 points

Stream method _____ eliminates duplicate objects in a stream.

Selected Answer: ☒ distinct

Answers:



distinct

discrete

unique

different

Question 10

1 out of 1 points

What is the meaning of () in the following lambda?
() -> System.out.println("Welcome to lambdas!")

Selected Answer: ☒ the lambda has an empty parameter list

Answers:

- ☐ the lambdas parameters are inferred
- ☐ the lambdas parameters are supplied by a method reference
- ☒ the lambda has an empty parameter list
- ☐ the given expression is not a valid lambda

Question 11

1 out of 1 points

Stream method _____ maps objects to double values and returns a DoubleStream. The method receives an object that implements the functional interface ToDoubleFunction (package java.util.function).

Selected Answer: ☒ mapToDouble

Answers:

- ☐ doubleMap
- ☐ toDouble
- ☒ mapToDouble
- ☐ toDoubleStream

Question 12

1 out of 1 points

Stream reduction operation _____ uses the elements of a collection to produce a single value using an associative accumulation function (e.g., a lambda that adds two elements).

Selected Answer: ☒ reduce

Answers:

- ☒ reduce
- ☐ condense
- ☐ combine
- ☐ associate

Question 13

1 out of 1 points

_____ is a constructor reference. It creates a lambda that invokes the no-argument constructor of the specified class to create and initialize a new object of that class.

Selected Answer: ☒ TreeMap::new

Answers: Math::sqrt

System.out::println

☒ TreeMap::new

String::toUpperCase

Question 14

1 out of 1 points

The basic generic functional interface _____ in package java.util.function contains method get that takes no arguments and returns a value of type T.

Selected Answer: ☒ UnaryOperator<T>

Answers: ☒ UnaryOperator<T>

Function<T,R>

Supplier<T>

BinaryOperator<T>

Question 15

1 out of 1 points

_____ is a method reference for a static method of a class. It creates a one-parameter lambda in which the lambda's argument is passed to the specified static method and the lambda returns the method's result.

Selected Answer: ☒ Math::sqrt

Answers: ☒ Math::sqrt

System.out::println

TreeMap::new

String::toUpperCase

Question 16

1 out of 1 points


Prior to Java SE 8, Java supported three programming paradigms. Java SE 8 adds _____.

Selected Answer: ☒ functional programming.

Answers: procedural programming

object-oriented programming

generic programming

 functional programming.


Question 17

1 out of 1 points

Functional interface Comparator's default method _____ reverses an existing Comparator's ordering.

Selected Answer:  reversed

Answers:

- invert
- descending
-  reversed
- downward


Question 18

1 out of 1 points

You can define your own reductions for an IntStream by calling its _____ method. The first argument is a value that helps you begin the reduction operation and the second argument is an object that implements the IntBinaryOperator functional interface.

Selected Answer:  reduce


Answers:

- reduction.
- lessen
- trim
-  reduce


Question 19

1 out of 1 points

Functional interface BiConsumer's accept method has two parameters. For Maps, the first represents the _____ and the second the corresponding _____.

Selected Answer:  key, value

Answers:

- key, variable
- lambda, value
- lambda, variable
-  key, value

Question 20

1 out of 1 points

Class `IntStream` provides terminal operations for common stream _____. `count` returns the number of elements, `min` returns the smallest int, `max` returns the largest int, `sum` returns the sum of all the ints and `average` returns an `OptionalDouble` (package `java.util`) containing the average of the ints as a value of type `double`.

Selected Answer: ☒ reductions

Answers:

- ☐ consolidations
- ☐ deductions
- ☒ reductions
- ☐ trims

Question 21

1 out of 1 points

The basic generic functional interface _____ in package `java.util.function` contains method `accept` that takes a `T` argument and returns `void`. Performs a task with its `T` argument, such as outputting the object, invoking a method of the object, etc.

Selected Answer: ☒ `Consumer<T>`

Answers:

- ☒ `Consumer<T>`
- ☐ `Function<T,R>`
- ☐ `Supplier<T>`
- ☐ `BinaryOperator<T>`

Question 22

1 out of 1 points

The basic generic functional interface _____ in package `java.util.function` contains method `apply` that takes two `T` arguments, performs an operation on them (such as a calculation) and returns a value of type `T`.

Selected Answer: ☒ `BinaryOperator<T>`

Answers:

- ☐ `Consumer<T>`
- ☐ `Function<T,R>`
- ☐ `Supplier<T>`
- ☒ `BinaryOperator<T>`

Question 23

1 out of 1 points

You can declare that an interface is a functional interface by preceding it with the `@FunctionalInterface` annotation. The compiler will then ensure that the interface contains _____. Otherwise, it'll generate a compilation error.

Selected Answer: ☒ only one abstract method

Answers:

- no abstract methods
- all abstract methods
- ☒ only one abstract method
- one or more abstract methods.

Question 24

1 out of 1 points

Map method _____ performs an operation on each key–value pair.

Selected Answer: ☒ forEach

Answers:

- for
- forEach
- ☒ forEach
- forAll

Question 25

1 out of 1 points

_____ is a method reference for an instance method of a class. It creates a one-parameter lambda that invokes the instance method on the lambda's argument and returns the method's result.

Selected Answer: ☒ String::toUpperCase

Answers:

- Math::sqrt
- System.out::println
- TreeMap::new
- ☒ String::toUpperCase

Question 26

1 out of 1 points

Intermediate Stream operation _____ results in a stream in which each element of the original stream is mapped to a new value (possibly of a different type)—e.g., mapping numeric values to the squares of the numeric values. The new stream has the same number of elements as the original stream.

Selected Answer: ☒ map

Answers:

- mapped
- ☒ map

mapper

mapping

Question 27

1 out of 1 points

The intermediate Stream operation _____ results in a stream containing only the unique elements.

Selected Answer: ☒ distinct

Answers: ☒ distinct

map

filter

limit

Question 28

1 out of 1 points

Collectors static method groupingBy with two arguments receives a Function that classifies the objects in the stream and another Collector (known as the _____ Collector).

Selected Answer: ☒ downstream

Answers: stream

☒ downstream

grouping stream

upstream

Question 29

1 out of 1 points

The basic generic functional interface _____ in package java.util.function contains method get that takes no arguments and produces a value of type T. Often used to create a collection object in which a stream operation's results are placed.

Selected Answer: ☒ Supplier<T>

Answers: Consumer<T>

Function<T,R>

☒ Supplier<T>

BinaryOperator<T>

Question 30

1 out of 1 points

The basic generic functional interface _____ in package `java.util.function` contains method `apply` that takes a `T` argument and returns a value of type `R`. Calls a method on the `T` argument and returns that method's result.

Selected Answer: ☒ `Function<T,R>`

Answers:

- ☐ `Consumer<T>`
- ☒ `Function<T,R>`
- ☐ `Supplier<T>`
- ☐ `BinaryOperator<T>`

Question 31

1 out of 1 points

Class `Array`'s _____ method is used to create a `Stream` from an array of objects.

Selected Answer: ☒ `stream`

Answers:

- ☒ `stream`
- ☐ `arrayToStream`
- ☐ `createStream`
- ☐ `objectToStream`

Question 32

1 out of 1 points

_____ is a method reference for an instance method that should be called on a specific object. It creates a one-parameter lambda that invokes the instance method on the specified object—passing the lambda's argument to the instance method—and returns the method's result.

Selected Answer: ☒ `System.out::println`

Answers:

- ☐ `Math::sqrt`
- ☒ `System.out::println`
- ☐ `TreeMap::new`
- ☐ `String::toUpperCase`

Question 33

1 out of 1 points

Terminal Stream operation _____ performs processing on every element in a stream (e.g., display each element).

Selected Answer: ☒ forEach

Answers:

- ☐ forNext
- ☐ for
- ☐ forAll
- ☒ forEach

Question 34

1 out of 1 points

Stream method `findFirst` is a short-circuiting terminal operation that processes the stream pipeline and terminates processing as soon as the first object from the stream pipeline is found. The method returns a(n) _____ containing the object that was found, if any.

Selected Answer: ☒ Optional

Answers:

- ☒ Optional
- ☐ Discretionary
- ☐ Elective
- ☐ Extra

Question 35

1 out of 1 points

A nice performance feature of lazy evaluation is the ability to perform _____ evaluation, that is, to stop processing the stream pipeline as soon as the desired result is available.

Selected Answer: ☒ short circuit

Answers:

- ☐ premature
- ☒ short circuit
- ☐ terminal
- ☐ intermediate

Question 36

1 out of 1 points

An _____ (package `java.util.stream`) is a specialized stream for manipulating `int` values.

Selected Answer: ☒ `IntStream`

Answers:

- ☐ `StreamOfInt`
- ☐ `IStream`.

IntegerStream

☒ IntStream**Question 37**

1 out of 1 points

Collectors static method _____ returns a Collector that counts the number of objects in a given classification, rather than collecting them into a List.

Selected Answer: ☒ counting

Answers:

- counter
- count
- ☒ counting
- enumerate

Question 38

1 out of 1 points

Method reduce's first argument is formally called a(n) _____ value—a value that, when combined with any stream element using the IntBinaryOperator produces that element's original value.

Selected Answer: ☒ identity

Answers:

- original
- ☒ identity
- preserve
- self

Question 39

1 out of 1 points

_____ is an intermediate operation that transforms a stream's elements to new values and produces a stream containing the resulting (possibly different type) elements.

Selected Answer: ☒ Mapping

Answers:

- Transforming
- Converting
- ☒ Mapping
- Translating


Question 40

1 out of 1 points

Stream mutable reduction operation _____ creates an array containing the results of the stream's prior operations.

Selected Answer:  toArray

Answers:

- array
- createArray
-  toArray
- reduceArray

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← OK