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org.apache.commons.collections4

## Class ClosureUtils

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + org.apache.commons.collections4.ClosureUtils
* public class ClosureUtils  
  extends [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
* ClosureUtils provides reference implementations and utilities for the Closure functor interface. The supplied closures are:
  + Invoker - invokes a method on the input object
  + For - repeatedly calls a closure for a fixed number of times
  + While - repeatedly calls a closure while a predicate is true
  + Chained - chains two or more closures together
  + If - calls one closure or another based on a predicate
  + Switch - calls one closure based on one or more predicates
  + SwitchMap - calls one closure looked up from a Map
  + Transformer - wraps a Transformer as a Closure
  + NOP - does nothing
  + Exception - always throws an exception
* Since v4.1 only closures which are considered to be safe are Serializable. Closures considered to be unsafe for serialization are:
  + Invoker
  + For
  + While

Since: 3.0

### Method SummaryAll Methods Static Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [asClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#asClosure-org.apache.commons.collections4.Transformer-)([Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<? super E,?> transformer) Creates a Closure that calls a Transformer each time it is called. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [chainedClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#chainedClosure-org.apache.commons.collections4.Closure...-)([Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E>... closures) Create a new Closure that calls each closure in turn, passing the result into the next closure. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [chainedClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#chainedClosure-java.util.Collection-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<? extends [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E>> closures) Create a new Closure that calls each closure in turn, passing the result into the next closure. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [doWhileClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#doWhileClosure-org.apache.commons.collections4.Closure-org.apache.commons.collections4.Predicate-)([Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> closure, [Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate) Creates a Closure that will call the closure once and then repeatedly until the predicate returns false. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [exceptionClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#exceptionClosure--)() Gets a Closure that always throws an exception. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [forClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#forClosure-int-org.apache.commons.collections4.Closure-)(int count, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> closure) Creates a Closure that will call the closure count times. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [ifClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#ifClosure-org.apache.commons.collections4.Predicate-org.apache.commons.collections4.Closure-)([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> trueClosure) Create a new Closure that calls another closure based on the result of the specified predicate. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [ifClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#ifClosure-org.apache.commons.collections4.Predicate-org.apache.commons.collections4.Closure-org.apache.commons.collections4.Closure-)([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> trueClosure, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> falseClosure) Create a new Closure that calls one of two closures depending on the specified predicate. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [invokerClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#invokerClosure-java.lang.String-)([String](https://docs.oracle.com/javase/7/docs/api/java/lang/String.html?is-external=true) methodName) Creates a Closure that will invoke a specific method on the closure's input object by reflection. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [invokerClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#invokerClosure-java.lang.String-java.lang.Class:A-java.lang.Object:A-)([String](https://docs.oracle.com/javase/7/docs/api/java/lang/String.html?is-external=true) methodName, [Class](https://docs.oracle.com/javase/7/docs/api/java/lang/Class.html?is-external=true)<?>[] paramTypes, [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)[] args) Creates a Closure that will invoke a specific method on the closure's input object by reflection. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [nopClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#nopClosure--)() Gets a Closure that will do nothing. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [switchClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#switchClosure-java.util.Map-)([Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<[Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<E>,[Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E>> predicatesAndClosures) Create a new Closure that calls one of the closures depending on the predicates. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [switchClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#switchClosure-org.apache.commons.collections4.Predicate:A-org.apache.commons.collections4.Closure:A-)([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E>[] predicates, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E>[] closures) Create a new Closure that calls one of the closures depending on the predicates. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [switchClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#switchClosure-org.apache.commons.collections4.Predicate:A-org.apache.commons.collections4.Closure:A-org.apache.commons.collections4.Closure-)([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E>[] predicates, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E>[] closures, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> defaultClosure) Create a new Closure that calls one of the closures depending on the predicates. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [switchMapClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#switchMapClosure-java.util.Map-)([Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<? extends E,[Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E>> objectsAndClosures) Create a new Closure that uses the input object as a key to find the closure to call. |
| * + static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> | * + [whileClosure](http://docs.google.com/org/apache/commons/collections4/ClosureUtils.html#whileClosure-org.apache.commons.collections4.Predicate-org.apache.commons.collections4.Closure-)([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> closure) Creates a Closure that will call the closure repeatedly until the predicate returns false. |

### Methods inherited from class java.lang.[**Object**](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)[clone](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#clone--), [equals](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#equals-java.lang.Object-), [finalize](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#finalize--), [getClass](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#getClass--), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#hashCode--), [notify](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#notify--), [notifyAll](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#notifyAll--), [toString](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#toString--), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait--), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait-long-), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait-long-int-)

### Method Detail

#### exceptionClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> exceptionClosure() Gets a Closure that always throws an exception. This could be useful during testing as a placeholder.Type Parameters: E - the type that the closure acts on Returns: the closure See Also: [ExceptionClosure](http://docs.google.com/org/apache/commons/collections4/functors/ExceptionClosure.html)

#### nopClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> nopClosure() Gets a Closure that will do nothing. This could be useful during testing as a placeholder.Type Parameters: E - the type that the closure acts on Returns: the closure See Also: [NOPClosure](http://docs.google.com/org/apache/commons/collections4/functors/NOPClosure.html)

#### asClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> asClosure([Transformer](http://docs.google.com/org/apache/commons/collections4/Transformer.html)<? super E,?> transformer) Creates a Closure that calls a Transformer each time it is called. The transformer will be called using the closure's input object. The transformer's result will be ignored.Type Parameters: E - the type that the closure acts on Parameters: transformer - the transformer to run each time in the closure, null means nop Returns: the closure See Also: [TransformerClosure](http://docs.google.com/org/apache/commons/collections4/functors/TransformerClosure.html)

#### forClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> forClosure(int count, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> closure) Creates a Closure that will call the closure count times. A null closure or zero count returns the NOPClosure.Type Parameters: E - the type that the closure acts on Parameters: count - the number of times to loop closure - the closure to call repeatedly Returns: the for closure See Also: [ForClosure](http://docs.google.com/org/apache/commons/collections4/functors/ForClosure.html)

#### whileClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> whileClosure([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> closure) Creates a Closure that will call the closure repeatedly until the predicate returns false.Type Parameters: E - the type that the closure acts on Parameters: predicate - the predicate to use as an end of loop test, not null closure - the closure to call repeatedly, not null Returns: the while closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if either argument is null See Also: [WhileClosure](http://docs.google.com/org/apache/commons/collections4/functors/WhileClosure.html)

#### doWhileClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> doWhileClosure([Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> closure, [Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate) Creates a Closure that will call the closure once and then repeatedly until the predicate returns false.Type Parameters: E - the type that the closure acts on Parameters: closure - the closure to call repeatedly, not null predicate - the predicate to use as an end of loop test, not null Returns: the do-while closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if either argument is null See Also: [WhileClosure](http://docs.google.com/org/apache/commons/collections4/functors/WhileClosure.html)

#### invokerClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> invokerClosure([String](https://docs.oracle.com/javase/7/docs/api/java/lang/String.html?is-external=true) methodName) Creates a Closure that will invoke a specific method on the closure's input object by reflection.Type Parameters: E - the type that the closure acts on Parameters: methodName - the name of the method Returns: the invoker closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the method name is null See Also: [InvokerTransformer](http://docs.google.com/org/apache/commons/collections4/functors/InvokerTransformer.html), [TransformerClosure](http://docs.google.com/org/apache/commons/collections4/functors/TransformerClosure.html)

#### invokerClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> invokerClosure([String](https://docs.oracle.com/javase/7/docs/api/java/lang/String.html?is-external=true) methodName, [Class](https://docs.oracle.com/javase/7/docs/api/java/lang/Class.html?is-external=true)<?>[] paramTypes, [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)[] args) Creates a Closure that will invoke a specific method on the closure's input object by reflection.Type Parameters: E - the type that the closure acts on Parameters: methodName - the name of the method paramTypes - the parameter types args - the arguments Returns: the invoker closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the method name is null [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) - if the paramTypes and args don't match See Also: [InvokerTransformer](http://docs.google.com/org/apache/commons/collections4/functors/InvokerTransformer.html), [TransformerClosure](http://docs.google.com/org/apache/commons/collections4/functors/TransformerClosure.html)

#### chainedClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> chainedClosure([Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E>... closures) Create a new Closure that calls each closure in turn, passing the result into the next closure.Type Parameters: E - the type that the closure acts on Parameters: closures - an array of closures to chain Returns: the chained closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the closures array is null [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if any closure in the array is null See Also: [ChainedClosure](http://docs.google.com/org/apache/commons/collections4/functors/ChainedClosure.html)

#### chainedClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> chainedClosure([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<? extends [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E>> closures) Create a new Closure that calls each closure in turn, passing the result into the next closure. The ordering is that of the iterator() method on the collection.Type Parameters: E - the type that the closure acts on Parameters: closures - a collection of closures to chain Returns: the chained closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the closures collection is null [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if any closure in the collection is null [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) - if the closures collection is empty See Also: [ChainedClosure](http://docs.google.com/org/apache/commons/collections4/functors/ChainedClosure.html)

#### ifClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> ifClosure([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> trueClosure) Create a new Closure that calls another closure based on the result of the specified predicate.Type Parameters: E - the type that the closure acts on Parameters: predicate - the validating predicate trueClosure - the closure called if the predicate is true Returns: the if closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the predicate or closure is null Since: 3.2 See Also: [IfClosure](http://docs.google.com/org/apache/commons/collections4/functors/IfClosure.html)

#### ifClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> ifClosure([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> trueClosure, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> falseClosure) Create a new Closure that calls one of two closures depending on the specified predicate.Type Parameters: E - the type that the closure acts on Parameters: predicate - the predicate to switch on trueClosure - the closure called if the predicate is true falseClosure - the closure called if the predicate is false Returns: the switch closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the predicate or either closure is null See Also: [IfClosure](http://docs.google.com/org/apache/commons/collections4/functors/IfClosure.html)

#### switchClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> switchClosure([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E>[] predicates, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E>[] closures) Create a new Closure that calls one of the closures depending on the predicates. The closure at array location 0 is called if the predicate at array location 0 returned true. Each predicate is evaluated until one returns true.Type Parameters: E - the type that the closure acts on Parameters: predicates - an array of predicates to check, not null closures - an array of closures to call, not null Returns: the switch closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the either array is null [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if any element in the arrays is null [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) - if the arrays have different sizes See Also: [SwitchClosure](http://docs.google.com/org/apache/commons/collections4/functors/SwitchClosure.html)

#### switchClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> switchClosure([Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E>[] predicates, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E>[] closures, [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<? super E> defaultClosure) Create a new Closure that calls one of the closures depending on the predicates. The closure at array location 0 is called if the predicate at array location 0 returned true. Each predicate is evaluated until one returns true. If no predicates evaluate to true, the default closure is called.Type Parameters: E - the type that the closure acts on Parameters: predicates - an array of predicates to check, not null closures - an array of closures to call, not null defaultClosure - the default to call if no predicate matches Returns: the switch closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the either array is null [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if any element in the arrays is null [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) - if the arrays are different sizes See Also: [SwitchClosure](http://docs.google.com/org/apache/commons/collections4/functors/SwitchClosure.html)

#### switchClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> switchClosure([Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<[Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<E>,[Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E>> predicatesAndClosures) Create a new Closure that calls one of the closures depending on the predicates. The Map consists of Predicate keys and Closure values. A closure is called if its matching predicate returns true. Each predicate is evaluated until one returns true. If no predicates evaluate to true, the default closure is called. The default closure is set in the map with a null key. The ordering is that of the iterator() method on the entryset collection of the map.Type Parameters: E - the type that the closure acts on Parameters: predicatesAndClosures - a map of predicates to closures Returns: the switch closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the map is null [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if any closure in the map is null [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) - if the map is empty [ClassCastException](https://docs.oracle.com/javase/7/docs/api/java/lang/ClassCastException.html?is-external=true) - if the map elements are of the wrong type See Also: [SwitchClosure](http://docs.google.com/org/apache/commons/collections4/functors/SwitchClosure.html)

#### switchMapClosure public static <E> [Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E> switchMapClosure([Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<? extends E,[Closure](http://docs.google.com/org/apache/commons/collections4/Closure.html)<E>> objectsAndClosures) Create a new Closure that uses the input object as a key to find the closure to call. The Map consists of object keys and Closure values. A closure is called if the input object equals the key. If there is no match, the default closure is called. The default closure is set in the map using a null key.Type Parameters: E - the type that the closure acts on Parameters: objectsAndClosures - a map of objects to closures Returns: the closure Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the map is null [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if any closure in the map is null [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) - if the map is empty See Also: [SwitchClosure](http://docs.google.com/org/apache/commons/collections4/functors/SwitchClosure.html)

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