

Lambda expressions

Which of the following represents a lambda expression in Java?

A) `(int x, int y) -> { return x + y; }`

B) `int add(int x, int y) { return x + y; }`

C) `add(int x, int y) -> x + y;`

D) `int add(x, y) => { return x + y; }`

- What is the type of a lambda expression?
- A) int
- B) String
- C) Functional interface
- D) Marker interface

Which of the following functional interfaces represents a lambda expression that takes two integers and returns their sum?

- A) `BinaryOperator<Integer>`
- B) `UnaryOperator<Integer>`
- C) `Consumer<Integer>`
- D) `Function<Integer, Integer>`

Which keyword is used to denote a lambda expression in Java?

A) execute

B) runnable

C) lambda

D) None, it's represented with symbols ->

In a lambda expression $(a, b) \rightarrow a + b$, what does a and b represent?

- A) a is the method name and b is the return value.
- B) a is the parameter name and b is the method name.
- C) a and b are the parameter names.
- D) a and b are the method names.

What is the correct syntax of a lambda expression in Java?

- A) (parameters) -> expression
- B) parameters -> { statements }
- C) parameters -> expression
- D) All of the above

- Which of the following is true about lambda expressions?
- A) They are executed at runtime
- B) They can be used to replace functional interfaces
- C) They cannot be passed as arguments to methods
- D) They always require explicit type declaration

Which package contains the Predicate interface in Java?

- A) java.util.function
- B) java.util.lambda
- C) java.function
- D) java.lambda

- What is the purpose of a functional interface in Java?
- A) To provide an interface for functional programming languages
- B) To define a generic type
- C) To represent a class with only one method
- D) To extend multiple classes

Which of the following represents a valid lambda expression in Java?

A) `(x, y) -> { return x + y; }`

B) `(int x, y) -> { return x + y; }`

C) `(int x, int y) -> x + y`

D) `int add(int x, int y) -> { return x + y; }`

- How does a lambda expression differ from a regular method?
- A) Lambda expressions cannot have parameters
- B) Lambda expressions cannot have return types
- C) Lambda expressions can be passed as arguments to methods or stored in variables
- D) Lambda expressions cannot be used as arguments for functional interfaces

Which of the following functional interfaces represents a lambda expression that takes an integer and returns void?

- A) `Function<Integer, Void>`
- B) `Consumer<Integer>`
- C) `Supplier<Void>`
- D) `Predicate<Integer>`

What is the correct way to declare a functional interface in Java?

A) `interface MyInterface { void myMethod(); }`

B) `interface MyInterface extends Function { void myMethod(); }`

C) `interface MyInterface<T> { T myMethod(); }`

D) `interface MyInterface extends Runnable { void myMethod(); }`

Which of the following is true regarding the lambda expression
(a, b) -> a + b?

- A) It is invalid due to the return statement
- B) It can only be used with int data types
- C) It represents adding a and b
- D) It requires explicit type declaration for a and b

Which method of the Predicate functional interface is used to test a condition?

- A) apply()
- B) check()
- C) test()
- D) evaluate()