## Функциональные интерфейсы

- java.util.function
- @FunctionalInterface

## Predicate<T>

- boolean test(T t)
- default Predicate<T> and (Predicate<? super T> other)
- default Predicate<T> negate()
- default Predicate<T> or(Predicate<? super T> other)
- static <T> Predicate<T> isEqual(Object targetRef)
- static <T> Predicate<T> not(Predicate<? super T> target)

#### IntPredicate

- boolean test(int value)
- default IntPredicate and(IntPredicate other)
- default IntPredicate negate()
- default IntPredicate or(IntPredicate other)

### LongPredicate

- boolean test(long value)
- default LongPredicate and (LongPredicate other)
- default LongPredicate negate()
- default LongPredicate or(LongPredicate other)

#### DoublePredicate

- boolean test(double value)
- default DoublePredicate and (DoublePredicate other)
- default DoublePredicate negate()
- default DoublePredicate or (DoublePredicate other)

## BiPredicate<T, U>

- boolean test(T t, U u)
- default BiPredicate<T, U> and( BiPredicate<? super T, ? super U> other)

- default BiPredicate<T, U> negate()
- default BiPredicate<T, U> or( BiPredicate<? super T, ? super U> other)

#### Consumer<T>

- void accept(T t)
- default Consumer<T> and Then (Consumer<? super T> after)

#### IntConsumer

- void accept(int value)
- default IntConsumer andThen(IntConsumer after)

#### LongConsumer

- void accept(long value)
- $\bullet \ \ \text{default LongConsumer andThen} \ (\texttt{LongConsumer after})$

#### DoubleConsumer

- void accept(double value)
- default DoubleConsumer andThen(DoubleConsumer after)

#### BiConsumer<T, U>

- void accept(T t, U u)
- default BiConsumer<T, U> andThen( BiConsumer<? Super T, ? super U> after)

#### ObjIntConsumer<T>

• void accept(T t, int value)

#### ObjLongConsumer<T>

• void accept(T t, long value)

#### ObjDoubleConsumer<T>

• void accept(T t, double value)

## Supplier<T>

- T get()
- BooleanSupplier
- boolean getAsBoolean()

```
IntSupplier
• int getAsInt()
LongSupplier
• long getAsLong()
DoubleSupplier
• double getAsDouble()
Function<T, R>
• R apply(T t)
• default <V> Function<V, R> compose(
   Function<? super V, ? extends T> before)
```

• default <V> Function<T, V> andThen( Function<? super R, ? extends V> after)

• static <T> Function<T, T> identity()
IntFunction<R>

R apply(int value)
 LongFunction<R>

• R apply(long value)

DoubleFunction<R>

• R apply(double value)

ToIntFunction<T>

ullet int applyAsInt(T value)

ToLongFunction<T>

• long applyAsLong(T value)

ToDoubleFunction<T>

• double applyAsDouble(T value)

IntToLongFunction

• long applyAsLong(int value)

IntToDoubleFunction

• double applyAsDouble(int value)

```
LongToIntFunction
• int applyAsInt(long value)
LongToDoubleFunction
• double applyAsDouble(long value)
DoubleToIntFunction
• int applyAsInt(double value)
DoubleToLongFunction
• long applyAsLong(double value)
UnaryOperator<T>
• extends Function<T, T>
• static <T> UnaryOperator<T> identity()
IntUnaryOperator
• int applyAsInt(int operand)
• default IntUnaryOperator compose(
 IntUnaryOperator before)

    default IntUnaryOperator andThen(IntUnaryOperator after)

• static IntUnaryOperator identity()
LongUnaryOperator
• long applyAsLong(long operand)

    default LongUnaryOperator compose(

 LongUnaryOperator before)
• default LongUnaryOperator andThen(LongUnaryOperator
 after)
• static LongUnaryOperator identity()
DoubleUnaryOperator
• double applyAsDouble (double operand)
• default DoubleUnaryOperator compose(
 DoubleUnaryOperator before)
```

• default DoubleUnaryOperator andThen(

• static DoubleUnaryOperator identity()

DoubleUnaryOperator after)

```
R apply(T t, U u)
default <V> BiFunction<T, U, V> andThen( Function<? super R, ? extends V> after)
```

# BinaryOperator<T>

BiFunction<T, U, R>

- extends BiFunction<T,T,T>
   public static <T> BinaryOperator <T>minBy( Comparator<? super T> comparator)
- public static <T> BinaryOperator<T> maxBy( Comparator<? super T> comparator)

## ToIntBiFunction<T,U>

- int applyAsInt(T t, U u)
   ToLongBiFunction<T, U>
- long applyAsLong(T t, U u)
- ToDoubleBiFunction<T, U>
- double applyAsDouble(T t, U u)
- IntBinaryOperator
- int applyAsInt(int left, int right)
- LongBinaryOperator
- long applyAsLong(long left, long right)

## DoubleBinaryOperator

 $\bullet \ \, {\tt double \ applyAsDouble} \, ({\tt double \ left, \ double \ right})$