

## Ansatz TTD:

Tests schreiben und danach programmieren

### Häufige Fehler in den erstellten Tests:

- assertNotNull wenig genutzt
- Leichtsinnfehler in while-loop-conditions beim arbeiten mit Zufallszahlen.
- Sehr große und komplexe Gedankengänge

### Fehler innerhalb des Programms

ggf. Laufzeitprobleme, da in Order mit List<Pizza> und nicht mit Map<Pizza> gearbeitet.  
-> unschöner Code beim Entfernen einer Pizza

### Schwierigkeiten:

- Schwer Testfälle zu trennen und nicht alle Testfälle in eine Methode zu hauen.  
(Unmodifiable Collections und eigentliche Werte der Collection z.B.)
- Schwer außerhalb der "box" zu denken, da ja das Interface spezifiziert wurde.
- Tests werden schon mit einer allg. Lösung im Kopf geschrieben und auf diese angepasst  
(Kopplung zu eng)
- aufwand die Tests zu schreiben um ein vielfaches höher als der eigentliche Code
- Schwer destruktiven code zu schreiben

### Was mir im nachhinein aufgefallen ist:

- Pizzen werden nie aus der Map entfernt, wenn diese aus der Order entfernt werden  
(Topping hinzufügen/entfernen noch möglich), jedoch aus der Order entfernt --> ggf. Memory Leak

# Tests in 'prog.ex06.pizzadelivery': 17 total, 13 error, 4 failed

14 ms

## prog.ex06.pizzadelivery.TestPizzaSize

5 ms

### testPriseListPizzaSize

error 5 ms

Cannot invoke "java.util.Map.remove(Object)" because "previousPriceMap" is null  
java.lang.NullPointerException: Cannot invoke "java.util.Map.remove(Object)" because "previousPriceMap" is null

at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestPizzaSize.testPriseListPizzaSize(TestPizzaSize.java:37)

at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

## prog.ex06.pizzadelivery.TestSimpleOrder

0 ms

### testEmptyPizzaList

error 0 ms

Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getOrder(int)" is null  
java.lang.NullPointerException: Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getOrder(int)" is null

at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimpleOrder.testEmptyPizzaList(TestSimpleOrder.java:67)

### testCalculatePizzaPrice01

error 0 ms

Cannot invoke "java.util.Map.get(Object)" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getPizzaSizePriceList()" is null  
java.lang.NullPointerException: Cannot invoke "java.util.Map.get(Object)" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getPizzaSizePriceList()" is null

at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimpleOrder.testCalculatePizzaPrice01(TestSimpleOrder.java:87)

### testCalculatePizzaPrice02

error 0 ms

Cannot invoke "java.util.Map.get(Object)" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getPizzaSizePriceList()" is null  
java.lang.NullPointerException: Cannot invoke "java.util.Map.get(Object)" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getPizzaSizePriceList()" is null

at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimpleOrder.testCalculatePizzaPrice02(TestSimpleOrder.java:162)

### testTwoEmptyOrderObjects

failed 0 ms

two orders with the same id were created. Actual: 0  
java.lang.AssertionError: two orders with the same id were created. Actual: 0

at junit@4.13/org.junit.Assert.fail(Assert.java:89)

at junit@4.13/org.junit.Assert.failEquals(Assert.java:187)

at junit@4.13/org.junit.Assert.assertNotEquals(Assert.java:201)

## prog.ex06.pizzadelivery.TestSimplePizza

3 ms

# Tests in 'prog.ex06.pizzadelivery': 17 total, 13 error, 4 failed

14 ms

Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getOrder(int)" is null  
java.lang.NullPointerException: Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getOrder(int)" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizza.testAddDuplicateToppings(TestSimplePizza.java:92)

## testAddTopping

error 1 ms

19:57:59.475 [Test worker] [INFO] TestSimplePizza - Created order with id:0  
19:57:59.475 [Test worker] [INFO] TestSimplePizza - Trying to add toppings to a pizza  
Cannot invoke "java.util.List.add(Object)" because the return value of "prog.ex06.exercise.pizzadelivery.Pizza.getToppings()" is null  
java.lang.NullPointerException: Cannot invoke "java.util.List.add(Object)" because the return value of "prog.ex06.exercise.pizzadelivery.Pizza.getToppings()" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizza.testAddTopping(TestSimplePizza.java:113)  
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

## testAddToManyToppings

failed 0 ms

19:57:59.476 [Test worker] [INFO] TestSimplePizza - Created order with id:0  
The number of toppings added lies within the invalid range.  
java.lang.AssertionError: The number of toppings added lies within the invalid range.  
at junit@4.13/org.junit.Assert.fail(Assert.java:89)  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizza.testAddToManyToppings(TestSimplePizza.java:216)  
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

## testRemoveTopping

error 1 ms

19:57:59.476 [Test worker] [INFO] TestSimplePizza - Created order with id:0  
19:57:59.476 [Test worker] [INFO] TestSimplePizza - Tying to remove toppings from a pizza  
Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getOrder(int)" is null  
java.lang.NullPointerException: Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because the return value of "prog.ex06.exercise.pizzadelivery.PizzaDeliveryService.getOrder(int)" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizza.testRemoveTopping(TestSimplePizza.java:162)

## prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService

6 ms

## testRemovePizzaWithInvalidIDFromOrderWithInvalidID

error 4 ms

Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because "order" is null  
java.lang.NullPointerException: Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because "order" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.addDummyPizzaToOrder(TestSimplePizzaDeliveryService.java:184)  
at kprog.main@1.0-

## testInfluenceOfTwoPizzaDeliveryObjects

failed 0 ms

# Tests in 'prog.ex06.pizzadelivery': 17 total, 13 error, 4 failed

14 ms

## testRemovePizzaFromOrder

error 0 ms

Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because "order" is null  
java.lang.NullPointerException: Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because "order" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.addDummyPizzaToOrder(TestSimplePizzaDeliveryService.java:184)  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.testRemovePizzaFromOrder(TestSimplePizzaDeliveryService.java:103)

## testGetByOrderID

error 1 ms

Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getOrderID()" because "o" is null  
java.lang.NullPointerException: Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getOrderID()" because "o" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.testGetByOrderID(TestSimplePizzaDeliveryService.java:46)  
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

## testAddPizzaToOrder

error 0 ms

Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because "order" is null  
java.lang.NullPointerException: Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because "order" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.testAddPizzaToOrder(TestSimplePizzaDeliveryService.java:90)  
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

## testRemovePizzaWithInvalidIDFromOrderWithID

error 0 ms

Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because "order" is null  
java.lang.NullPointerException: Cannot invoke "prog.ex06.exercise.pizzadelivery.Order.getPizzaList()" because "order" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.addDummyPizzaToOrder(TestSimplePizzaDeliveryService.java:184)  
at kprog.main@1.0-

## testGetByInvalidOrderID

failed 1 ms

able to get order with invalid order id.  
java.lang.AssertionError: able to get order with invalid order id.  
at junit@4.13/org.junit.Assert.fail(Assert.java:89)  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.testGetByInvalidOrderID(TestSimplePizzaDeliveryService.java:60)  
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)

## prog.ex06.pizzadelivery.TestTopping

0 ms

## testPriseListTopping

error 0 ms

Cannot invoke "java.util.Map.remove(Object)" because "previousPriceMap" is null  
java.lang.NullPointerException: Cannot invoke "java.util.Map.remove(Object)" because "previousPriceMap" is null  
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestTopping.testPriseListTopping(TestTopping.java:34)

**Next iteration**

# Tests in 'prog.ex06.pizzadelivery': 17 total, 1 error, 16 failed

11 ms

## prog.ex06.pizzadelivery.TestPizzaSize

4 ms

### testPriseListPizzaSize

failed

4 ms

```
price map is nulljava.lang.AssertionError: price map is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## prog.ex06.pizzadelivery.TestSimpleOrder

1 ms

### testEmptyPizzaList

failed

1 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

### testCalculatePizzaPrice01

failed

0 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

### testCalculatePizzaPrice02

failed

0 ms

```
pizza size price mal is nulljava.lang.AssertionError: pizza size price mal is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

### testTwoEmptyOrderObjects

failed

0 ms

```
two orders with the same id were created. Actual: 0java.lang.AssertionError: two orders with the same id were created. Actual: 0
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.failEquals(Assert.java:187)
at junit@4.13/org.junit.Assert.assertNotEquals(Assert.java:201)
```

## prog.ex06.pizzadelivery.TestSimplePizza

3 ms

# Tests in 'prog.ex06.pizzadelivery': 17 total, 1 error, 16 failed

11 ms

```
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
...
```

## testAddTopping

error 1 ms

```
20:15:28.058 [Test worker] [INFO] TestSimplePizza - Created order with id:0
20:15:28.058 [Test worker] [INFO] TestSimplePizza - Trying to add toppings to a pizza
Cannot invoke "java.util.List.add(Object)" because the return value of "prog.ex06.exercise.pizzadelivery.Pizza.getToppings()" is nulljava.lang.NullPointerException: Cannot
invoke "java.util.List.add(Object)" because the return value of "prog.ex06.exercise.pizzadelivery.Pizza.getToppings()" is null
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizza.testAddTopping(TestSimplePizza.java:119)
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
...
```

## testAddToManyToppings

failed 0 ms

```
20:15:28.059 [Test worker] [INFO] TestSimplePizza - Created order with id:0
The number of toppings added lies within the invalid range.java.lang.AssertionError: The number of toppings added lies within the invalid range.
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizza.testAddToManyToppings(TestSimplePizza.java:232)
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
...
```

## testRemoveTopping

failed 1 ms

```
20:15:28.059 [Test worker] [INFO] TestSimplePizza - Created order with id:0
20:15:28.059 [Test worker] [INFO] TestSimplePizza - Trying to remove toppings from a pizza
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
...
```

## prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService

3 ms

## testRemovePizzaWithInvalidIDFromOrderWithInvalidID

failed 0 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
...
```

## testInfluenceOfTwoPizzaDeliveryObjects

failed 1 ms

```
order ids are not unique between services expected:<2> but was:<1>java.lang.AssertionError: order ids are not unique between services expected:<2> but was:<1>
...
```

# Tests in 'prog.ex06.pizzadelivery': 17 total, 1 error, 16 failed

11 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## testGetByOrderID

failed 0 ms

```
order with id 0 is nulljava.lang.AssertionError: order with id 0 is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## testAddPizzaToOrder

failed 0 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## testRemovePizzaWithInvalidIDFromOrderWithID

failed 0 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## testGetByInvalidOrderID

failed 2 ms

```
able to get order with invalid order id.java.lang.AssertionError: able to get order with invalid order id.
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.testGetByInvalidOrderID(TestSimplePizzaDeliveryService.java:60)
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
```

## prog.ex06.pizzadelivery.TestTopping

0 ms

## testPriseListTopping

failed 0 ms

```
price map is nulljava.lang.AssertionError: price map is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```



**Next iteration**

# Tests in 'prog.ex06.pizzadelivery': 17 total, 17 failed

8 ms

## prog.ex06.pizzadelivery.TestPizzaSize

4 ms

### testPriseListPizzaSize

failed

4 ms

```
price map is nulljava.lang.AssertionError: price map is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## prog.ex06.pizzadelivery.TestSimpleOrder

1 ms

### testEmptyPizzaList

failed

1 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

### testCalculatePizzaPrice01

failed

0 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

### testCalculatePizzaPrice02

failed

0 ms

```
pizza size price mal is nulljava.lang.AssertionError: pizza size price mal is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

### testTwoEmptyOrderObjects

failed

0 ms

```
two orders with the same id were created. Actual: 0java.lang.AssertionError: two orders with the same id were created. Actual: 0
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.failEquals(Assert.java:187)
at junit@4.13/org.junit.Assert.assertNotEquals(Assert.java:201)
```

## prog.ex06.pizzadelivery.TestSimplePizza

2 ms

# Tests in 'prog.ex06.pizzadelivery': 17 total, 17 failed

8 ms

```
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
...
```

## testAddTopping

failed 1 ms

```
20:16:27.517 [Test worker] [INFO] TestSimplePizza - Created order with id:0
20:16:27.517 [Test worker] [INFO] TestSimplePizza - Trying to add toppings to a pizza
toppings are nulljava.lang.AssertionError: toppings are null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
...
```

## testAddToManyToppings

failed 1 ms

```
20:16:27.518 [Test worker] [INFO] TestSimplePizza - Created order with id:0
The number of toppings added lies within the invalid range.java.lang.AssertionError: The number of toppings added lies within the invalid range.
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizza.testAddToManyToppings(TestSimplePizza.java:235)
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
...
```

## testRemoveTopping

failed 0 ms

```
20:16:27.518 [Test worker] [INFO] TestSimplePizza - Created order with id:0
20:16:27.518 [Test worker] [INFO] TestSimplePizza - Tying to remove toppings from a pizza
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
...
```

## prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService

1 ms

## testRemovePizzaWithInvalidIDFromOrderWithInvalidID

failed 0 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
...
```

## testInfluenceOfTwoPizzaDeliveryObjects

failed 0 ms

```
order ids are not unique between services expected:<2> but was:<1>java.lang.AssertionError: order ids are not unique between services expected:<2> but was:<1>
```

# Tests in 'prog.ex06.pizzadelivery': 17 total, 17 failed

8 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## testGetByOrderID

failed 0 ms

```
order with id 0 is nulljava.lang.AssertionError: order with id 0 is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## testAddPizzaToOrder

failed 0 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## testRemovePizzaWithInvalidIDFromOrderWithID

failed 0 ms

```
order is nulljava.lang.AssertionError: order is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

## testGetByInvalidOrderID

failed 1 ms

```
able to get order with invalid order id.java.lang.AssertionError: able to get order with invalid order id.
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService.testGetByInvalidOrderID(TestSimplePizzaDeliveryService.java:60)
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
```

## prog.ex06.pizzadelivery.TestTopping

0 ms

## testPriseListTopping

failed 0 ms

```
price map is nulljava.lang.AssertionError: price map is null
at junit@4.13/org.junit.Assert.fail(Assert.java:89)
at junit@4.13/org.junit.Assert.assertTrue(Assert.java:42)
at junit@4.13/org.junit.Assert.assertNotNull(Assert.java:713)
```

**Next iteration**

# Tests in 'prog.ex06.pizzadelivery': 17 total, 2 error, 1 failed, 14 passed

8.09 s

prog.ex06.pizzadelivery.TestPizzaSize			5 ms
testPriseListPizzaSize	passed		5 ms
prog.ex06.pizzadelivery.TestSimpleOrder			59 ms
testEmptyPizzaList	passed		1 ms
testCalculatePizzaPrice01	passed		7 ms
testCalculatePizzaPrice02	passed		51 ms
testTwoEmptyOrderObjects	passed		0 ms
prog.ex06.pizzadelivery.TestSimplePizza			14 ms
testAddDuplicateToppings	passed		12 ms
testAddTopping	passed		1 ms
testAddToManyToppings	passed		1 ms
testRemoveTopping	passed		0 ms
prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService			8.01 s
testRemovePizzaWithInvalidIDFromOrderWithInvalidID	passed		2 ms
testInfluenceOfTwoPizzaDeliveryObjects	error		1 ms
Index: 29, Size: 0java.lang.IndexOutOfBoundsException: Index: 29, Size: 0 at java.base/java.util.ArrayList.rangeCheckForAdd(ArrayList.java:756) at java.base/java.util.ArrayList.addAll(ArrayList.java:700) at kprog.main@1.0-			
testRemovePizzaFromOrder	passed		1 ms
testGetByOrderID	passed		0 ms
testAddPizzaToOrder	passed		1 ms
testRemovePizzaWithInvalidIDFromOrderWithID	failed		8.00 s

# Tests in 'prog.ex06.pizzadelivery': 17 total, 2 error, 1 failed, 14 passed

8.09 s

testGetByInvalidOrderID

passed

1 ms

prog.ex06.pizzadelivery.TestTopping

0 ms

testPriseListTopping

error

0 ms

```
java.lang.UnsupportedOperationException
at java.base/java.util.Collections$UnmodifiableMap.remove(Collections.java:1508)
at kprog.main@1.0-SNAPSHOT/prog.ex06.pizzadelivery.TestTopping.testPriseListTopping(TestTopping.java:37)
at java.base/jdk.internal.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
```

**Next iteration**



# Tests in 'prog.ex06.pizzadelivery': 17 total, 1 error, 16 passed

73 ms

## prog.ex06.pizzadelivery.TestPizzaSize

4 ms

testPriseListPizzaSize

passed

4 ms

## prog.ex06.pizzadelivery.TestSimpleOrder

60 ms

testEmptyPizzaList

passed

2 ms

testCalculatePizzaPrice01

passed

7 ms

testCalculatePizzaPrice02

passed

51 ms

testTwoEmptyOrderObjects

passed

0 ms

## prog.ex06.pizzadelivery.TestSimplePizza

4 ms

testAddDuplicateToppings

passed

3 ms

testAddTopping

passed

1 ms

testAddToManyToppings

passed

0 ms

testRemoveTopping

passed

0 ms

## prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService

5 ms

testRemovePizzaWithInvalidIDFromOrderWithInvalidID

passed

1 ms

testInfluenceOfTwoPizzaDeliveryObjects

error

2 ms

Index: 29, Size: 0java.lang.IndexOutOfBoundsException: Index: 29, Size: 0  
at java.base/java.util.ArrayList.rangeCheckForAdd(ArrayList.java:756)  
at java.base/java.util.ArrayList.addAll(ArrayList.java:700)  
at kprog.main@1.0-

testRemovePizzaFromOrder

passed

0 ms

testGetByOrderID

passed

0 ms

testAddPizzaToOrder

passed

1 ms

testRemovePizzaWithInvalidIDFromOrderWithID

passed

0 ms

Tests in 'prog.ex06.pizzadelivery': **17 total, 1 error, 16 passed**

73 ms

 **testPriseListTopping**

passed

0 ms

**Next iteration**

# Tests in 'prog.ex06.pizzadelivery': 17 total, 17 passed

66 ms

## prog.ex06.pizzadelivery.TestSimplePizzaDeliveryService

10 ms

testRemovePizzaWithInvalidIDFromOrderWithInvalidID

passed

7 ms

testInfluenceOfTwoPizzaDeliveryObjects

passed

1 ms

testRemovePizzaFromOrder

passed

1 ms

testGetByOrderID

passed

0 ms

testAddPizzaToOrder

passed

1 ms

testRemovePizzaWithInvalidIDFromOrderWithID

passed

0 ms

testGetByInvalidOrderID

passed

0 ms

## prog.ex06.pizzadelivery.TestPizzaSize

0 ms

testPriseListPizzaSize

passed

0 ms

## prog.ex06.pizzadelivery.TestSimpleOrder

53 ms

testEmptyPizzaList

passed

0 ms

testCalculatePizzaPrice01

passed

8 ms

testCalculatePizzaPrice02

passed

45 ms

testTwoEmptyOrderObjects

passed

0 ms

## prog.ex06.pizzadelivery.TestSimplePizza

3 ms

testAddDuplicateToppings

passed

1 ms

testAddTopping

passed

1 ms

testAddToManyToppings

passed

0 ms

testRemoveTopping

passed

1 ms

## prog.ex06.pizzadelivery.TestTopping

0 ms

testPriseListTopping

passed

0 ms

# ASB Test Results

→ Test the functionality



In this group of tests we check your code in faulty situations.

→ Checks if an exception occurs if a non-existent Order Id is used in getOrder()



→ Checks if an exception occurs if a non-existent Order Id is used in removePizza()



→ Checks if an exception occurs if a non-existent pizza Id is used in removePizza()



→ Checks if multiple instances of the service can work well parallel.



→ Checks if a TooManyToppingsException is thrown.



→ Test the functionality



In this group of tests we check your code in normal situations.

→ Tests if an empty order can be created



→ Adds a pizza to an order



→ Removes a pizza from an order



→ Checks if the pizza price list is returned correctly



→ Checks if the toppings price list is returned correctly



# Checkstyle

Die Bewertung wurde mit 0 Fehlern abgeschlossen.

→ Quellcode datei /prog/ex06/exercise/pizzadelivery/Topping.java



→ Quellcode datei /prog/ex06/solution/pizzadelivery/SimplePizzaDeliveryService.java



→ Quellcode datei /prog/ex06/exercise/pizzadelivery/PizzaDeliveryService.java



→ Quellcode datei /prog/ex06/exercise/pizzadelivery/PizzaSize.java



→ Quellcode datei /prog/ex06/exercise/pizzadelivery/Pizza.java



→ Quellcode datei /prog/ex06/solution/pizzadelivery/SimpleOrder.java



→ Quellcode datei /prog/ex06/exercise/pizzadelivery/TooManyToppingsException.java



→ Quellcode datei /prog/ex06/exercise/pizzadelivery/Order.java



→ Quellcode datei /prog/ex06/solution/pizzadelivery/SimplePizza.java

