

## QUESTION 1



Correct Answer

Score 20

## Implementation of equals() and hashCode() &gt; Coding

## QUESTION DESCRIPTION

Your company has many different products and each product has several different sizes.

The inventory management system treats each combination of "(String) productName" & "(int) size" as an individual *Product* record.

The records also contains a "(LocalDateTime) lastUpdate" field as a timestamp, which can be updated such that even if it is different, as long as the *productName* and *size* fields are equal, the *Product* record should be considered as same.

product1: productName = "Gloves", size = 5, timestamp = "2018-01-15 18:35:05"

product2: productName = "Gloves", size = 7, timestamp = "2018-01-11 10:02:55"

product3: productName = "Gloves", size = 5, timestamp = "2017-12-03 11:28:23"

product4: productName = "Hat", size = 5, timestamp = "2017-12-03 11:28:23"

With the above example data, only `product1.equals(product3)` should return *true* as their *productName* and *size* fields are identical (*timestamp* may vary).

All other *equals()* calls should return *false*.

Please complete the *equals()* and *hashCode()* methods for the *Product* class.

## CANDIDATE ANSWER

Language used: Java 8

```
1  @Override
2  public boolean equals(Object o) {
3      // ***** change the underline part *****
4      if (this == o) {
5          return true;
6      }
7
8      // ***** change the underline part *****
9      if (o == null) {
10         return false;
11     }
12
13     // ***** change the underline part *****
14     if (getClass() != o.getClass()) {
15         return false;
16     }
17
18     // ***** change the underline part *****
19     Product p = (Product)o;
20     return (this.productName.equals(p.productName)) && (this.size == p.size);
21 }
22
23 @Override
24 public int hashCode() {
25     int result = 7;
26
27     // ***** Please ONLY uncomment the correct lines *****
28     result = result * 31 + size;
29     result = result * 31 + ((productName == null) ? 0 : productName.hashCode());
30     // result = result * 31 + (timestamp.hashCode());
31     return result;
32 }
33
```

TESTCASE	TYPE	STATUS	SCORE	TIME TAKEN	MEMORY USED
Testcase 0	Easy	Success	10	0.2 sec	38 MB
Testcase 1	Easy	Success	10	0.2 sec	34.7 MB

No Comments

**QUESTION 2**

Correct Answer

Score 5

Strings &gt; Multiple Choice

**QUESTION DESCRIPTION**

The ..... compares the characters inside a string object, whereas ..... compares two objects references to see whether they refer to the same instance.

**CANDIDATE ANSWER**

**Options:** (Expected answer indicated with a tick)

- ☐ == operator , equals( ) method
- ☐ equals( ) method , compare( ) method
- ☒ equals( ) method, == operator
- ☐ == operator, compare( ) method

No Comments