Week 5 Quiz 5

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CE480 - Java and Internet Application

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# Author Note

# The Question

============ Make-up quiz ==============

---------------------------  
| Person                       |  
|   Vector kidAges;      |  
|   String name;           |

|   int age;                    |  
--------------------------

Implement class Person's

toString()

clone()

equals()

============ Original Quiz ==============

---------------------------  
| Person                       |  
|   int age;                    |  
|   String name;           |  
|   Int handlangths[]   |  
--------------------------

Implement class Person's

toString()

clone()

equals()

==========================Answer==================================

package Quiz5;

import java.util.Arrays;

public class Person {

  private int age;

  private String name;

  private int[] handLengths;

  // Constructor

  public Person(int age, String name, int[] handLengths) {

    this.age = age;

    this.name = name;

    this.handLengths = Arrays.copyOf(handLengths, handLengths.length);

  }

  // toString() method

  @Override

  public String toString() {

    return (

      "Person [age=" +

      age +

      ", name=" +

      name +

      ", handLengths=" +

      Arrays.toString(handLengths) +

      "]"

    );

  }

  // clone() method

  public Person clone() {

    return new Person(this.age, this.name, this.handLengths);

  }

  // equals() method

  @Override

  public boolean equals(Object obj) {

    if (this == obj) {

      return true;

    }

    if (obj == null || getClass() != obj.getClass()) {

      return false;

    }

    Person otherPerson = (Person) obj;

    return (

      age == otherPerson.age &&

      name.equals(otherPerson.name) &&

      Arrays.equals(handLengths, otherPerson.handLengths)

    );

  }

  public static void main(String[] args) {

    int[] handLengths = { 10, 12, 11 };

    Person person1 = new Person(30, "John", handLengths);

    Person person2 = person1.clone();

    System.out.println("Person 1: " + person1.toString());

    System.out.println("Person 2: " + person2.toString());

    System.out.println(

      "Are person1 and person2 equal? " + person1.equals(person2)

    );

  }

}

# References

Lastname, C. (2008). Title of the source without caps except Proper Nouns or: First word after colon. *The Journal or Publication Italicized and Capped*, Vol#(Issue#), Page numbers.

Lastname, O. (2010). Online journal using DOI (digital object identifier). *Main Online Journal Name*, Vol#(Issue#), 159-192. <https://doi.org/10.1000/182>

Lastname, W. (2009). *Title of webpage*. Site Name. Retrieved July 3, 2019, from<http://www.example.com>