**Day 3\_Java Assignment**

**1. Problem Description:**

class Person {

private String firstName;

private String lastName;

private String middleName;

private int age;

public Person (String firstName, String lastName, String middleName, int age) {

this.firstName = firstName;

this.lastName = lastName;

this.middleName = middleName;

this.age = age;

}

}

class Main {

public static void main(String args()) {

Person maha = new Person("Maha", "V", "Lakshmi", 26));

Person mahi = new Person("Mahi", "V", "Ma", 25));

Person mahalakshmi = new Person("Maha", "V", "Lakshmi", 26));

System.out.println(maha == mahalakshmi); //false

System.out.println(maha.equals(mahalakshmi)); // false

}

}

maha and mahalakshmi objects are different. I have created two different new objects. Both the object firstName, lastName, middleName, and age instance variables values are the same. Override the equals method in the person class. The solution should return true if two objects are the same or all the instance variables values are the same in two different objects; otherwise, it should return false.

**2. My Solution:**

**package** day\_3;

**import** java.util.Objects;

**class** Person

{

**private** String firstName;

**private** String lastName;

**private** String middleName;

**private** **int** age;

**public** Person(String firstName, String lastName, String middleName, **int** age) {

**this**.firstName = firstName;

**this**.lastName = lastName;

**this**.middleName = middleName;

**this**.age = age;

}

@Override

**public** **boolean** equals(Object obj) {

**if** (**this** == obj) {

System.***out***.println("Objects have the same reference");

**return** **true**;

}

/\* Check if obj is an instance of Person or not

"null instanceof [type]" also returns false \*/

**if** (!(obj **instanceof** Person)) {

System.***out***.println("Object is not an instance of Person");

**return** **false**;

}

// typecast obj to Person so that we can compare data members

Person p = (Person) obj;

**return** age == p.age &&

Objects.*equals*(firstName, p.firstName) &&

Objects.*equals*(lastName, p.lastName) &&

Objects.*equals*(middleName, p.middleName);

}

}

**public** **class** Day\_3

{

**public** **static** **void** main(String[] args)

{

Person maha = **new** Person("Maha", "V", "Lakshmi", 26);

Person mahi = **new** Person("Mahi", "V", "Ma", 25);

Person mahalakshmi = **new** Person("Maha", "V", "Lakshmi", 26);

System.***out***.println(maha == mahalakshmi); //False

System.***out***.println(maha.equals(mahalakshmi)); //False

}

}

**Output:**

false

true