**Cave of programming 42 – Equals**

**class** Person{

String name;

**int** age;

**public** Person(String name, **int** age){

**this**.name=name;

**this**.age=age;

}

@Override

**public** **int** hashCode() {

**final** **int** prime = 31;

**int** result = 1;

result = prime \* result + age;

result = prime \* result + ((name == **null**) ? 0 : name.hashCode());

**return** result;

}

@Override

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

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

**return** **true**;

**if** (obj == **null**)

**return** **false**;

**if** (getClass() != obj.getClass())

**return** **false**;

Person other = (Person) obj;

**if** (age != other.age)

**return** **false**;

**if** (name == **null**) {

**if** (other.name != **null**)

**return** **false**;

} **else** **if** (!name.equals(other.name))

**return** **false**;

**return** **true**;

} //Source>>Generate hashCode and equals()

}

**class** apples {

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

Person person1= **new** Person("Bob", 5);

Person person2= **new** Person("Bob", 5);

System.*out*.println(person1.equals(person2));

//Gives false until we override the equals in "Person" class to define what must equal what

Double value1 = 7.2;

Double value2 = 7.2;

System.*out*.println(value1 == value2); // false

System.*out*.println(value1.equals(value2)); // true

Integer number1=6;

Integer number2=6;

System.*out*.println(number1 == number2); // true

System.*out*.println(number1.equals(number2)); // true

String text1 = "Hello";

String text2 = "Hello";

System.*out*.println(text1 == text2); // true

String text3 = "Hello";

String text4 = "Helloasd".substring(0, 5);

System.*out*.println(text4); // Hello

System.*out*.println(text3 == text4); // false

System.*out*.println(text3.equals(text4)); // true

}

}

**Primitive types cannot call xx.equals(xx) method. For example**:

System.*out*.println(wow1.equals(wow2)); // Doesn’t work

System.*out*.println(number1.equals(wow2)); // Works!!