Frankfurt University of Applied Science

OOP/Java – WiSe 22/23 – Doina Logofătu

Vo Nguyen Minh Duy (1403240)

Le Hoang Dang Nguyen (1403693)

Mai Trong Nhan (1403729)

WEEK 2 – TASK 3 – QUIZZES

Question 1: Which of the statements below is **false**?

A. **<u>There are only 3 (three) Java class modifiers: “public”, “protected”, and “private”</u>**
B. Keeping class methods “public” as default is against the concept of encapsulation in Java
C. Private methods use static binding in Java, and they are bonded during compile time
D. Top level classes cannot be “private” in Java

<u>Explanation:</u> “Public”, “protected”, and “private” are only access modifiers. Besides access modifiers, there are other Java modifiers for different purposes, such as “static”, “abstract”, or “final”.

Question 2: Which **2 (two)** statements below are **true** about Java class definition?

A. Classes don’t need to be derived from other class(es)
B. **<u>Fields don’t need to have modifiers</u>**
C. Variables don’t need to have types
D. Class names don’t need to start with a letter
E. **<u>Method names don’t need to be distinctly different from each other</u>**

<u>Explanation:</u>

A is false, because in Java, all classes must be derived from some class. The top-most class is the Object class, which is defined in java.lang.

B is true, because in Java, if there is no modifier, the fields are automatically assigned as "default" (or "package-private"), meaning that the field is visible only within their own package.

C is false, because in Java, all variable must have a type.

D is false, because if D is true, class names can be started with a number. However, in Java, class names cannot start with numbers.

E is true, because in Java, a method might have the same name as other methods due to method overloading.

Question 3: Which of the statements below is **false** about Java enum?

A. The names of an enum type's fields are always in uppercase letter, due to the fact that they are constants

B. <u>Java enum types are much more powerful in comparison to other languages, because they are built exclusively for Java</u>

C. Since Java does not support multiple inheritance of state, an enum cannot extend to other parents, apart from java.lang.Enum

D. The compiler will automatically add compiler's special methods when creating an enum class body with methods and other fields included

<u>**Explanation:**</u> **Many other languages have the concept of enum, such as C#, MySQL, TypeScript, etc.**