WCC Measure – Computation Guidelines

- 1. Identification of the tokens begins after the class declaration.
- 2. In general, all the operators, keywords (except access flags such as public, static, etc.), strings, identifiers, and numerical values (including zero) are identified as separate tokens. However, they are exceptional cases.
- 3. All the characters inside a pair of single or double quotes are identified as a single token.
- 4. Along with the array name, the square brackets of an array are considered as one token.
- 5. Each comma operator that separates two program components from one another, is identified as a separate token.
- 6. Brackets are not identified as separate tokens.
- 7. In a program statement that contains a **variable declaration**, the variable name is not identified as a token. Hence, only the data type of the variable and comma operator that separates two variables are identified as tokens. On the other hand, if a program statement contains a **variable definition**, in addition to the data type of the variable and comma operator, the variable name is also identified as a token.
- 8. In a method declaration or invocation, the round brackets and the method name are identified as one token. However, the components inside the round brackets of **user-defined methods** are not identified as tokens. Similarly, the components inside the round brackets of the **constructors of user-defined classes** are also not identified as tokens.
- 9. In a decisional statement, along with the keyword that defines the decisional type, the round brackets are identified as one token. Thus, **if**(), **if-else**(), **else-if**(), **for**(), **while**(), **do-while**(), and **switch**() are identified as one token. However, the words **'else'** and **'do'** are not considered for the complexity calculation. In addition, the default:
- 10. The 'case:' and 'default:' in a switch statement are identified as separate tokens.
- 11. The keyword 'catch' and the round brackets are identified as one operator. However, the word 'try' is not considered for the complexity calculation.
- 12. The '.' operator that is used to connect classes, fields and/or methods is identified as a separate token. The class, method, or field names which are connected by '.' operators are also identified as separate tokens.
- 13. The statement terminator (;) is not identified as a token.
- 14. Manipulators such as **endl**, "\n" are considered as tokens.
- 15. The "*" sign used in the declaration of pointer is not a dereference operator. It is just a notation that creates a pointer. Thus, it is not considered as a token.

16. The keyword 'return' is not considered as a token.
17. For a program which does not have a built-in root class , the weight allocation of the Wi attribute begins at 1 .