

#04



School of Computing and Information Technologies

## PROGCON - CHAPTER 2

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CLASS NUMBER: #04

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SECTION: TM1911

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DATE: November 08, 2019

## PART 1: Identify the following.

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- Data type 1. A classification that describes what values can be assigned, how the variable is stored, and what types of operations can be performed with the variable.
- Hierarchy chart 2. A diagram that illustrates modules' relationships to each other.
- Data Dictionary 3. A list of every variable name used in a program, along with its type, size, and description.
- Functional Cohesion 4. A measure of the degree to which all the module statements contribute to the same task.
- Prompt 5. A message that is displayed on a monitor to ask the user for a response and perhaps explain how that response should be formatted.
- Portable 6. A module that can more easily be reused in multiple programs.
- Floating point 7. A number with decimal places.
- Identifier 8. A program component's name.
- Numeric Constant 9. A specific numeric value.
- Declaration 10. A statement that provides a data type and an identifier for a variable.
- Hungarian Notation 11. A variable-naming convention in which a variable's data type or other information is stored as part of its name.
- Integer 12. A whole number.
- Binary operator 13. An operator that requires two operands—one on each side.
- Magic Number 14. An unnamed constant whose purpose is not immediately apparent.
- Right-associativity or right-to-left associativity 15. Assigns a value from the right of an assignment operator to the variable or constant on the left of the assignment operator. **Assignment Statement**
- Alphanumeric values 16. Can contain alphabetic characters, numbers, and punctuation.
- Keywords 17. Constitute the limited word set that is reserved in a language.
- Module body 18. Contains all the statements in the module.
- Annotation symbol 19. Contains information that expands on what appears in another flowchart symbol; it is most often represented by a three-sided box that is connected to the step it references by a dashed line.
- Self-documenting 20. Contains meaningful data and module names that describe the program's purpose.

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right-associativity or right-to-left associativity

21. Describe operators that evaluate the expression to the right first.

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Numeric

22. Describes data that consists of numbers.

left associativity

23. Describes operators that evaluate the expression to the left first.

left-to-right associativity

Overhead

24. Describes the extra resources a task requires.

Order of operation

25. Describes the rules of precedence.

Inscope

26. Describes the state of data that is visible.

Garbage

27. Describes the unknown value stored in an unassigned variable.

Local

28. Describes variables that are declared within the module that uses them.

Global

29. Describes variables that are known to an entire program.

Rules of precedence

30. Dictate the order in which operations in the same statement are carried out.

external Documentation

31. Documentation that is outside a coded program.

internal Documentation

32. Documentation within a coded program.

Real numbers

33. Floating-point numbers.

End-of-job task

34. Hold the steps you take at the end of the program to finish the application.

Housekeeping task

35. Include steps you must perform at the beginning of a program to get ready for the rest of the program.

Detail loop tasks

36. Include the steps that are repeated for each set of input data.

Module Header

37. Includes the module identifier and possibly other necessary identifying information.

Lower camel casing

38. Is another name for the camel casing naming convention.

Kebo case

39. Is sometimes used as the name for the style that uses dashes to separate parts of a name.

Module return statement

40. Marks the end of the module and identifies the point at which control returns to the program or module that called the module.

Numeric Variable

41. One that can hold digits, have mathematical operations performed on it, and usually can hold a decimal point and a sign indicating positive or negative.

Main Program

42. Runs from start to stop and calls other modules.

Named Constant

43. Similar to a variable, except that its value cannot change after the first assignment.

Modules

44. Small program units that you can use together to make a program; programmers also refer to modules as subroutines, procedures, functions, or methods.

Initializing the variable

45. The act of assigning its first value, often at the same time the variable is created.

Encapsulation

46. The act of containing a task's instructions in a module.

Functional decomposition

47. The act of reducing a large program into more manageable modules.

Echoing input

48. The act of repeating input back to a user either in a subsequent prompt or in output.

Assignment operator

49. The equal sign; it is used to assign a value to the variable or constant on its left.

Reusability

50. The feature of modular programs that allows individual modules to be used in a variety of applications.



- Reliability 51. The feature of modular programs that assures you a module has been tested and proven to function correctly.
- Camel casing 52. The format for naming variables in which the initial letter is lowercase, multiple-word variable names are run together, and each new word within the variable name begins with an uppercase letter.
- Pascal casing 53. The format for naming variables in which the initial letter is uppercase, multiple-word variable names are run together, and each new word within the variable name begins with an uppercase letter.
- Mainline logic 54. The logic that appears in a program's main module; it calls other modules.
- Lvalue 55. The memory address identifier to the left of an assignment operator.
- Modularization 56. The process of breaking down a program into modules.
- Abstraction 57. The process of paying attention to important properties while ignoring nonessential details.
- Call a module 58. To use the module's name to invoke it, causing it to execute.
- Program level 59. Where global variables are declared.
- Program comments 60. Written explanations that are not part of the program logic but that serve as documentation for those reading the program.

Choose from the following

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|---|--|--|
| 1. <del>Abstraction</del>               | 22. <del>Hierarchy chart</del>             | 43. <del>Modules</del>   |
| 2. <del>Alphanumeric values</del>       | 23. <del>Housekeeping tasks</del>          | 44. <del>Named constant</del>                                      |
| 3. <del>Annotation symbol</del>         | 24. <del>Hungarian notation</del>          | 45. <del>Numeric</del>   |
| 4. <del>Assignment operator</del>       | 25. <del>Identifier</del>                  | 46. <del>Numeric constant (literal numeric constant)</del>         |
| 5. <del>Assignment statement</del>      | 26. <del>In scope</del>                    | 47. <del>Numeric variable</del>                                    |
| 6. <del>Binary operator</del>           | 27. <del>Initializing the variable</del>   | 48. <del>Order of operations</del>                                 |
| 7. <del>Call a module</del>             | 28. <del>Integer</del>                     | 49. <del>Overhead</del>  |
| 8. <del>Camel casing</del>              | 29. <del>Internal documentation</del>      | 50. <del>Pascal casing</del>                                       |
| 9. <del>Data dictionary</del>           | 30. <del>Kebab case</del>                  | 51. <del>Portable</del>  |
| 10. <del>Data type</del>                | 31. <del>Keywords</del>                    | 52. <del>Program comments</del>                                    |
| 11. <del>Declaration</del>              | 32. <del>Left-to-right associativity</del> | 53. <del>Program level</del>                                       |
| 12. <del>Detail loop tasks</del>        | 33. <del>Local</del>                       | 54. <del>Prompt</del>  |
| 13. <del>Echoing input</del>            | 34. <del>Lower camel casing</del>          | 55. <del>Real numbers</del>  |
| 14. <del>Encapsulation</del>            | 35. <del>Lvalue</del>                      | 56. <del>Reliability</del>   |
| 15. <del>End-of-job tasks</del>         | 36. <del>Magic number</del>                | 57. <del>Reusability</del>   |
| 16. <del>External documentation</del>   | 37. <del>Main program</del>                | 58. <del>Right-associativity and right-to-left associativity</del> |
| 17. <del>Floating-point</del>           | 38. <del>Mainline logic</del>              | 59. <del>Rules of precedence</del>                                 |
| 18. <del>Functional cohesion</del>      | 39. <del>Modularization</del>              | 60. <del>Self-documenting</del>                                    |
| 19. <del>Functional decomposition</del> | 40. <del>Module body</del>                 |  |
| 20. <del>Garbage</del>                  | 41. <del>Module header</del>               |  |
| 21. <del>Global</del>                   | 42. <del>Module return statement</del>     |  |



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School of Computing and Information Technologies

PROGCON - CHAPTER 2

CLASS NUMBER: #01

SECTION: m1a1

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PART 2: Identify whether each variable name is valid, and if not explain why.

a) ~~Age~~ valid

b) ~~Age\_\*~~ invalid, no special characters allowed other than underscore

c) ~~Age~~ Invalid, no special characters allowed other than underscore and it should start with letter (a-z or A-Z) or underscore (-)

d) ~~Age~~ Valid

e) ~~Age~~ Valid

f) ~~Age~~ Valid

g) ~~1age~~ Invalid, because it starts with a number. Variable name should start with letter A-Z / a-z or underscore (-)

h) ~~Age 1~~ Invalid, because spaces are not allowed.