



School of Computing and Information Technologies

## PROGCON - CHAPTER 2

CLASS NUMBER: 23

SECTION: AC-192

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DATE: 11/08/19

### PART 1: Identify the following.

- 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.
- Assignment statement 15. Assigns a value from the right of an assignment operator to the variable or constant on the left of the assignment operator.
- 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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$$60 \times 2 = 120$$

checked by: Niel

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- Right associativity and  
Left associativity  
Right left  
numeric
21. Describe operators that evaluate the expression to the right first.
22. Describes data that consists of numbers.
- Left to right associativity
23. Describes operators that evaluate the expression to the left first.
- Overhead
24. Describes the extra resources a task requires.
- Order of operation
25. Describes the rules of precedence.
- in scope
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 tasks
34. Hold the steps you take at the end of the program to finish the application.
- Housekeeping tasks
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's 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.
- kebab case
39. Is sometimes used as the name for the style that uses dashes to separate parts of a name.
- Module's 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 a 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

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





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

- 3 a) Age Valid
- 5 b) age\_\* Invalid - In variable name, only underscore is allowed and no other special characters in this situation, there is an asterisk which makes the variable invalid.
- 5 c) +age Invalid - It is invalid because it started with a plus sign. According to variable naming rules, A variable can only start with underscore or an alphabet, that is what makes this variable invalid.
- 3 d) age\_ Valid
- 3 e) \_age Valid
- 3 f) Age Valid
- 5 g) 1age Invalid - According to variable naming rule, a variable cannot start with a number or numeric value like 1, 2, 3. And in this given variable, it started with a number that is why it is invalid.
- 5 h) Age 1 Invalid - No other special character or spaces is allowed in naming a variable according to the variable naming rules which makes the given variable invalid because it has space on it.