FAQ on Programming Foundation with Pseudocode

Lesson 2: Good Programming Practices

- Keywords should be ideally capitalized while writing pseudocode
- Comments should be written above the module/ pseudocode.
- Characteristics of a good program like readability, layout, meaningful variables and module names, modularity, comments
- What is maintainability : importance of removing hard coded constants from the program
- Modularity : How to create modules : how to identify module name, how to decide what needs to be passed to a module.
    - If many values are being passed, then decide to pass a record instead of passing many individual values.
    - How to decide the return type from the module
- What is coupling : Explain the difference between tight coupling and loose coupling
- What is cohesion : Importance of cohesion
- What is the difference between correctness and robustness
- Identify the good programming practices followed or not followed in a given pseudocode

Lesson 5: Exception Handling

- What is defensive programming and its purpose.
- Why program cannot work only for right values entered by user.
- What are different techniques of defensive programming
- Meaningful messages have to be displayed when either
    - user enters wrong values (input validation)
    - when data is being read from a file/ table and a “not found “ situation occurs . (exception handling)
- What is exception handling ?
    - Separates normal code from exception handling code. Relate this concept to pl sql or tsql exception handling
- Guidelines for creating exception handlers
    - Which module should throw / raise the exception
    - Which module should catch the exception
-

Lesson 6: Software Testing

- Definition and purpose of testing and debugging
- Guidelines for implementing test cases
- What is static and dynamic testing
- Different techniques of static and dynamic testing
- Different techniques of white box testing
- Different testing approaches
- What is system testing, validation testing, acceptance and regression testing