

Cohesion : Cohesion means functional strength of module.

Coupling : Coupling means degree of interaction between two modules(**Interdependency**)

A modular design has high cohesion i.e [Functional cohesion](#) and low coupling i.e [Data coupling](#)

Cohesion

Coincidental	Logical	Temporal	Procedural	Communicational	Sequential	Functional
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Low  High

Coupling

Data	Stamp	Control	Common	Content
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Low  High

Cohesion

- 1) **Coincidental cohesion:** A module is said to have coincidental cohesion, if each element of module execute independently.
- 2) **Logical cohesion:** A module is said to be logically cohesive, if all elements of the module perform similar operations
- 3) **Temporal cohesion:** When a module contains functions that are related by the fact that all the functions must be executed in the same time span
- 4) **Procedural cohesion:** A module is said to possess procedural cohesion, if the set of functions of the module are all part of a procedure (algorithm) in which certain sequence of steps have to be carried out for achieving an Objective
- 5) **Communicational cohesion:** A module is said to have communicational cohesion, if all functions of the module refer to or update the same data structure
- 6) **Sequential cohesion:** A module is said to possess sequential cohesion, if the elements of a module form the sequence, where the output from one element is input to the next.
- 7) **Functional cohesion:** Functional cohesion is said to exist, if different elements of a module cooperate to achieve a single function.

CL

TP

CS

Coupling

- 1) **Data coupling**: Two modules are data coupled, if they communicate through a parameter
- 2) **Stamp coupling**: Two modules are stamp coupled, if they communicate using a composite data item such as a structure in C
- 3) **Control coupling**: One module supervise the order of execution of other module i.e *parent child relationship* or you can say *base class derived class relationship*.
- 4) **Common coupling**: Two modules are common coupled, if they share data through some global data items.
- 5) **Content coupling**: One module can modify the content of another module for its functionality.

SCCC