502 - Cohesion

Cohesion and **Coupling** deal with the quality of an OO design. Generally, good OO design should be loosely coupled and highly cohesive. Lot of the design principles, design patterns which have been created are based on the idea of "Loose coupling and high cohesion".

The aim of the design should be to make the application:

• easier to develop

• easier to maintain

• easier to add new features

• less Fragile.

REFERS to degree to which things are grouped together (similar things)

• **Functional**
    • Facilities are kept together that perform only one computation with no side effects
• **Layer**
    • Related services kept together
• **Communicational**
    • Facilities for operating on the same data are kept together
• **Sequential**
    • A set of procedures which are called one after another are kept together
• **Temporal**
    • Procedures used in the same general phase of execution like initialization and clean-up are kept together
• **Utility**
    • Related utilities are kept together (when there is no other way to group using strong cohesion)