

SD AND ART

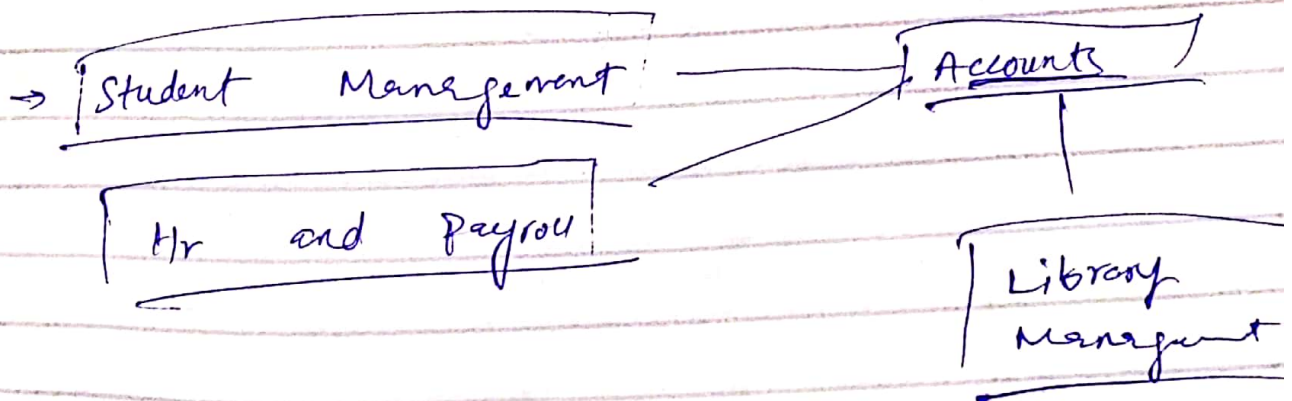
- ~~→ Directly Open commands~~
- ~~→ Create folder — mkdir command~~
- ~~→ Delete folder — rmdir folder name~~

Software Design & Architecture Lec #2

- Design and Architecture
- Design Principles
- Design Criteria
- Architecture also dependent on the Software Design
- Architecture initial Design
- Design → Internal Design
 - Minor changes in system: maintenance
 - Major changes in system: Version
- Lehman's First Law of Software Evolution

→ وہ لاء کے مطلب اثرات Software میں آیا ہے؟ یا نہیں ہے change
پیدا کرنے کا یا نہیں ہے قسم سے پیدا کیا۔

Architecture



→ Design is closed to coding during the Software development.

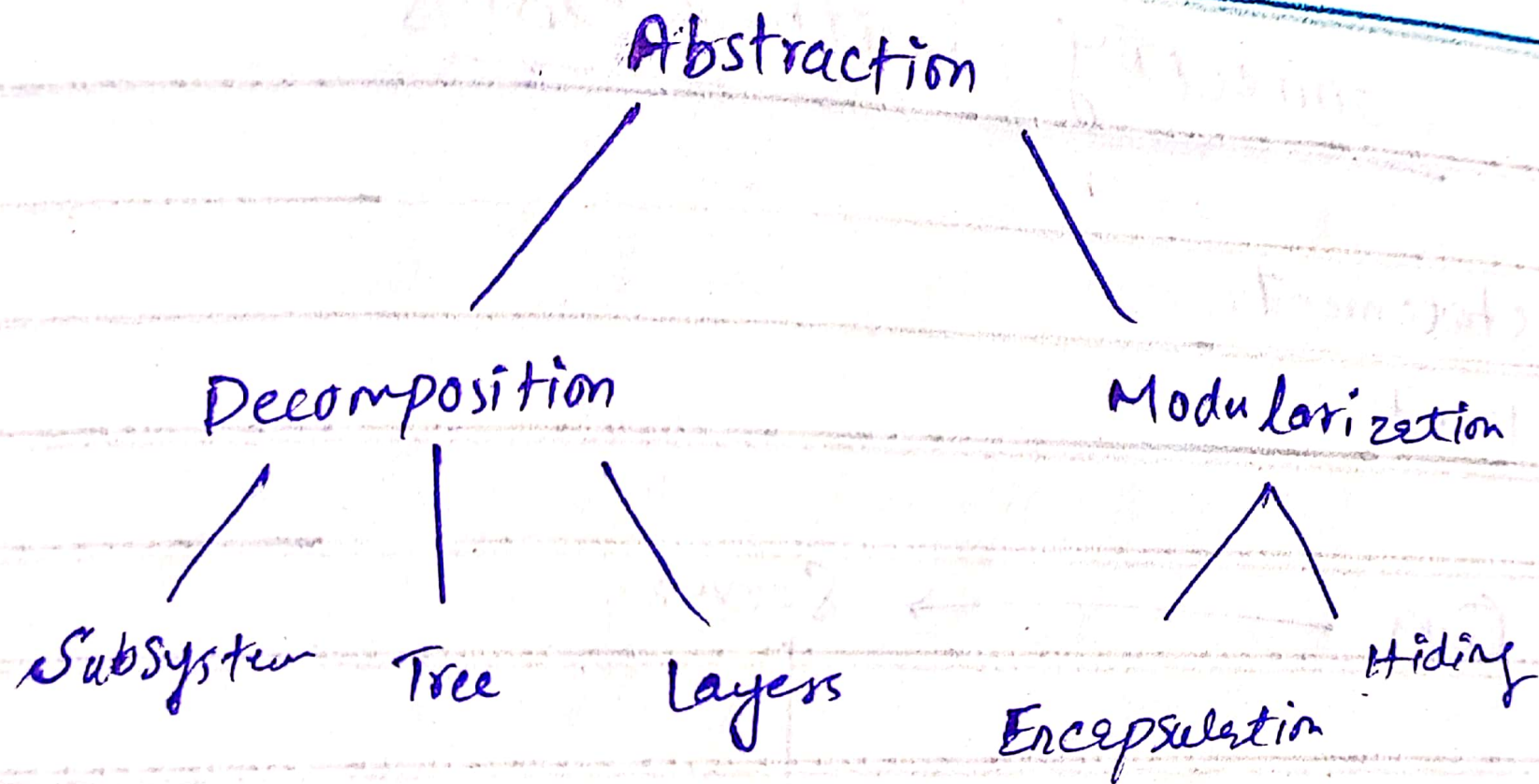
Q In Software ~~arch~~ architecture we discuss about rather than "How" why?

Ans:

We know that architecture is initial stage of Design in which we discuss about the 'How the Software will work, software goals, perform tasks and requirements. How to divide the different tasks of in Software Design.

Design Principles
Design Principles

- Abstraction
- Decomposition
- Modularization
- Subsystems
- Layers
- Trees
- ~~for~~ Encapsulation
- Information Hiding.



COPY

CP mailing list new newmainlingls

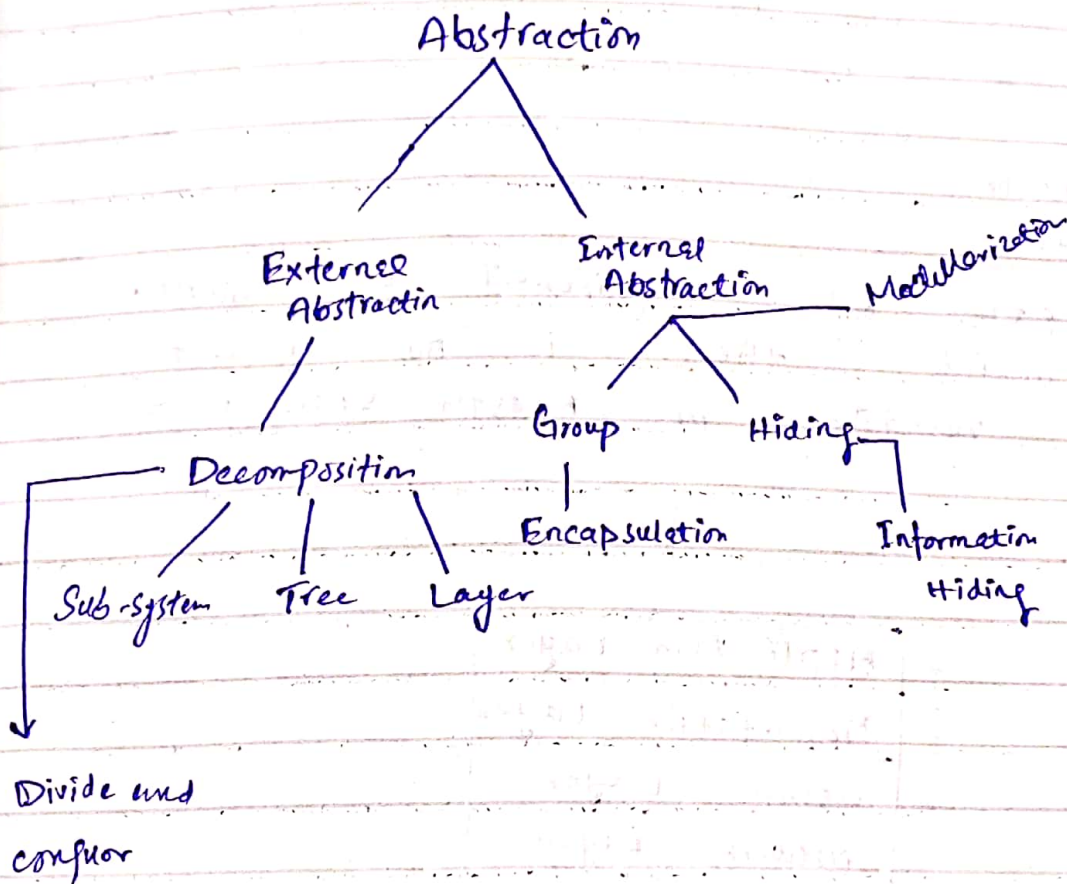
Move on file to other file

mv filename other file Name

LEC#3

22-09-2022

Design and Architecture Sr. Waqar



we identify the requirements on the base of functions

A Model which forms specific function called Modules.

26-09-2022

4290

Design And Architecture

S- Enterprise Resource Planning

Why Modularization

To

Q: why it is difficult to develop independent Module in case of vertical decomposition?

Ans: Vertical decomposition is difficult to develop because due to increase coupling between Modules.
When coupling between modules increases the complexity of Module or relationship between them.

26-09-2022

Design And Architecture

Internal Abstraction

- Internal Functionality
- Use Modularization to achieve Separation of Core functionalities.
- Cross cutting concerns
↓
Spread across multiple modules

Benefits

- (i) - Lack of duplication
- (ii) - Easy Maintainability
- (iii) - Reusability
- (iv) - Easy extension.

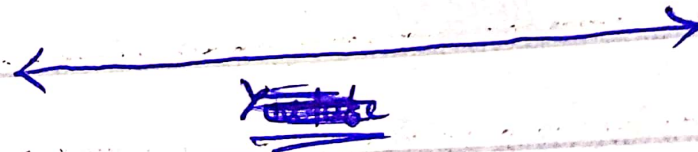
Hiding Information

- Abstraction is hide unwanted data
- Encapsulation is hide needed data.
-

17

Design Criteria

- 1 - complete
- 2 - plausible (easy to understand)
- 3 - Homogenous



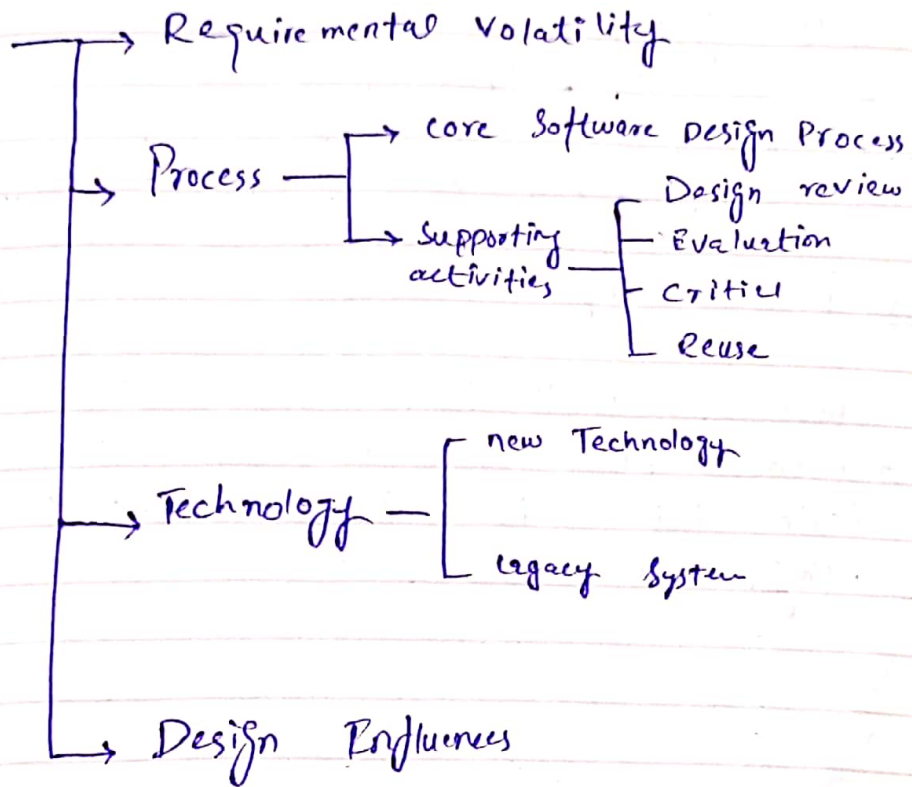
Criteria

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Software Design And Architecture

Software Design Challenge



→ Requirement Volatility
complete requirement is necessary for software design and development.

→ Process or Design Process

→ well define

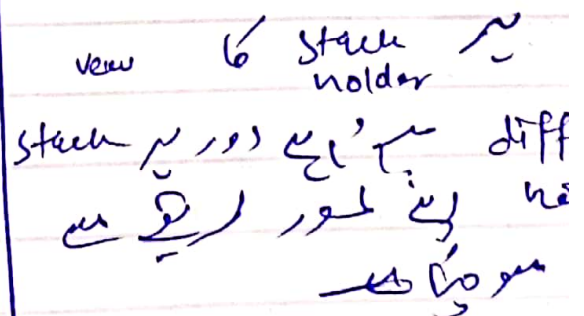
→ we should have unique software design process. Don't use copy design of other design.

→ Technology

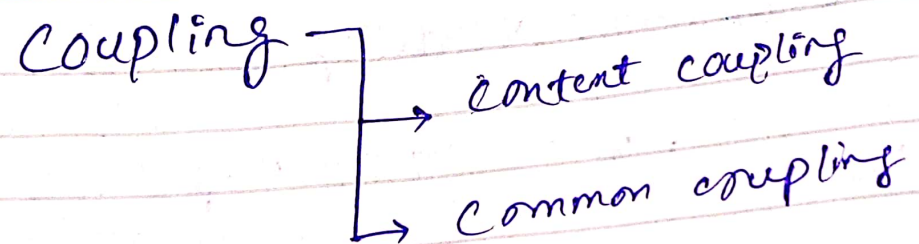
- New Technology
- Legacy System

→ Design Influences

U+1 model



Coupling



content coupling

when content of one module depend on content of second module this is called content coupling.

LINE

Statistics

DESCRIPTIVE STATISTICS

→ stats which describe and summarizing it

→ Its talk about

DATA SUMMARY

→ Bar Graph, Pie

Measures of Central

→ Mean — Average

10 - 10 - 3030

10-10-2022

SDA

Mr. Wagar

Coupling Types

- Common coupling
- Content coupling
- control coupling
- stamp coupling
- Data coupling