



東北大學
Northeastern University

软件工程

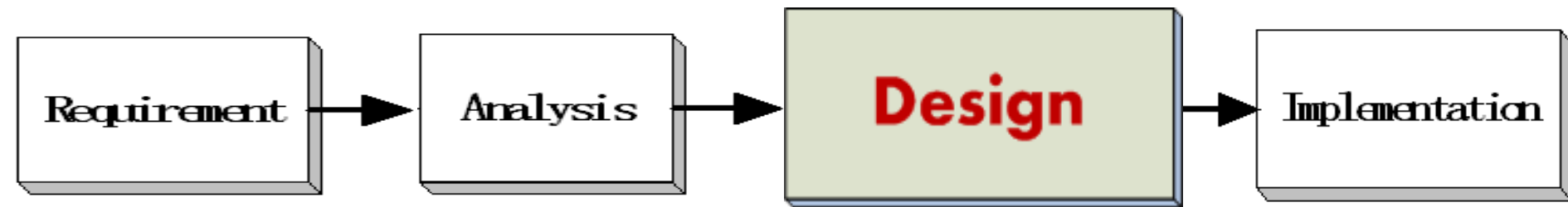
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东北大学软件学院





6.1 Software System Design



What  **How**

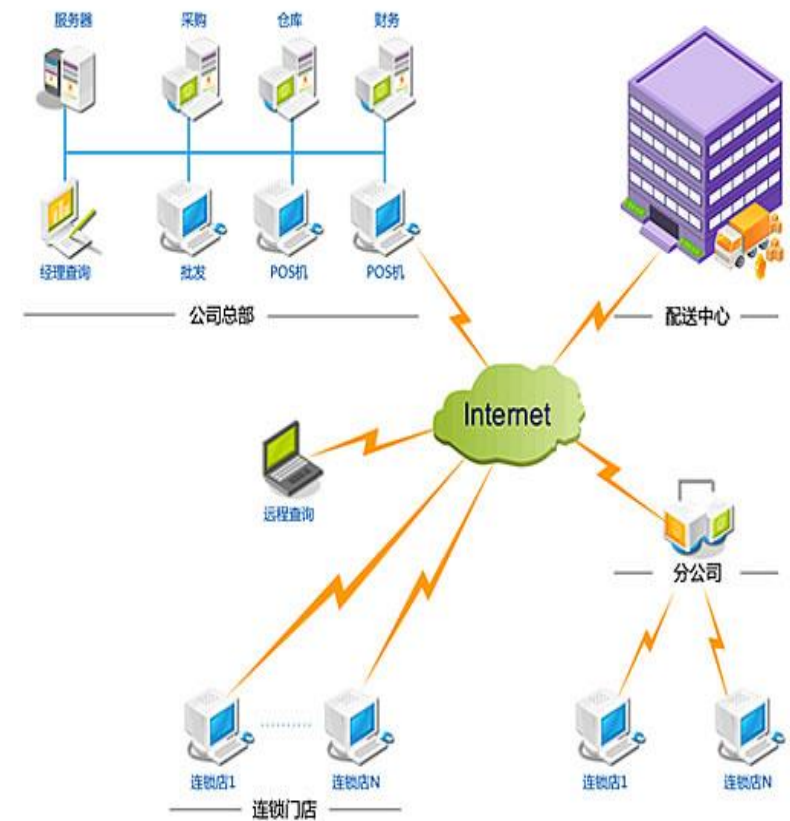
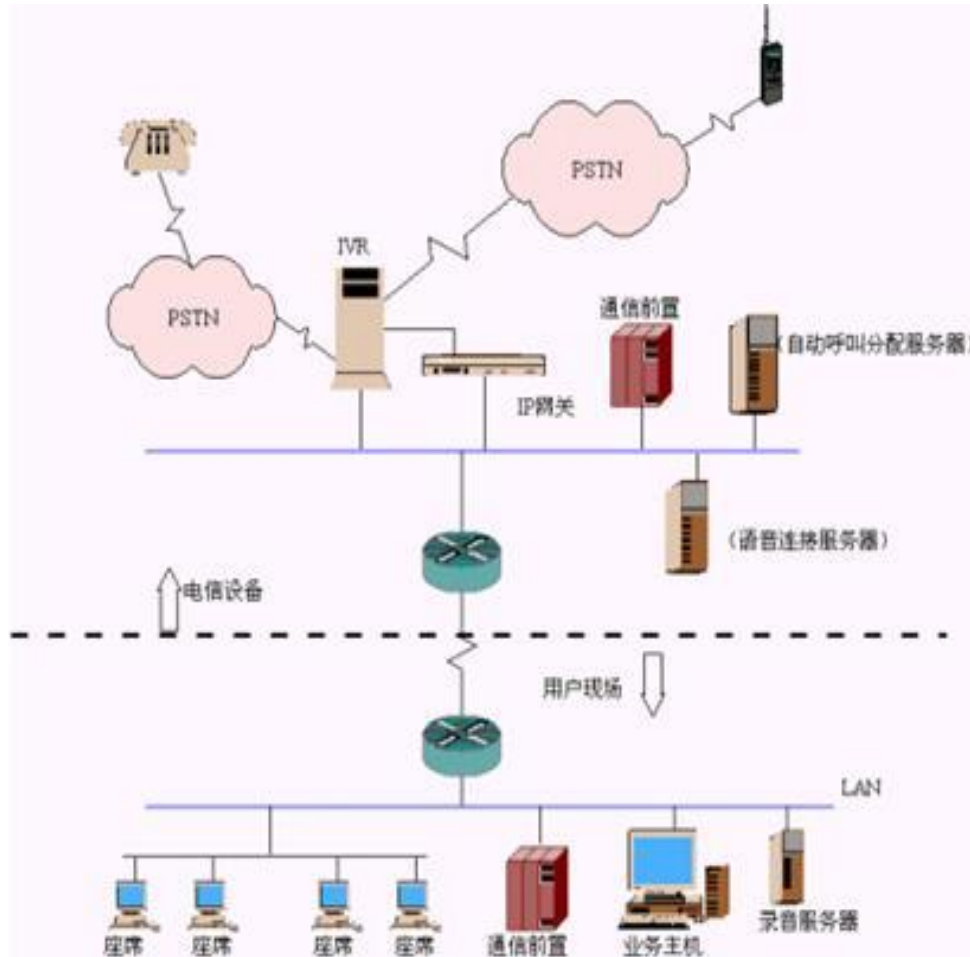
Architectural Design



Architectural Design

- Architecture ----*skeleton*, the overall structure of the software system, and the ways which provide conceptual integrity for the system.

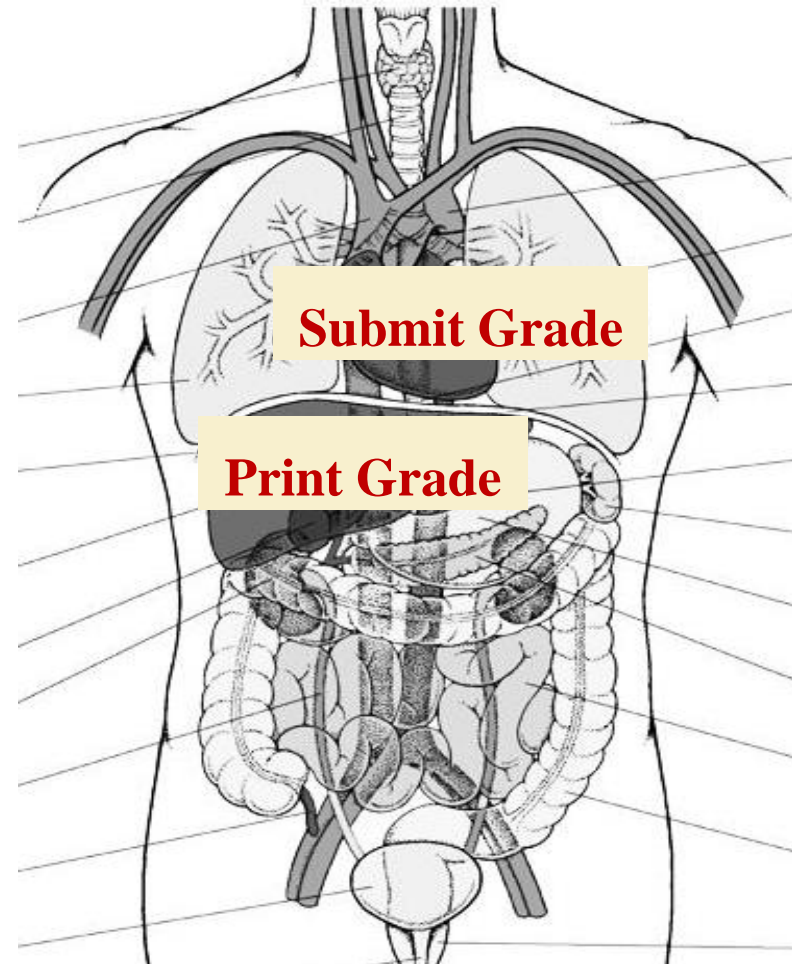
Software Architecture Examples



Module Design



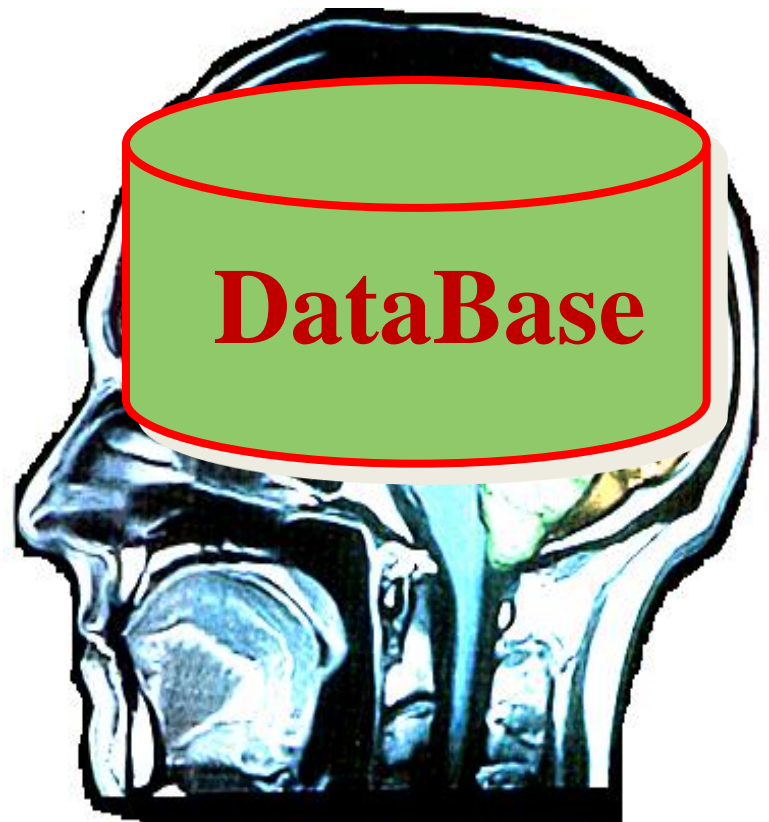
- ◆ **Module ---- *organ***
 - **Function-independent**
 - **Integratable**
- ◆ **Rules for modularization**
 - **Information hiding**
 - **High inhesion**
 - **Low coupling**





❖ Database ---- *brain*

- Store data
- Process data





❖ **Database system ---- the DB server supplied by DB supplier**

- **Big:** *Oracle, DB2, Informix, Sybase*
- **Medium:** *SQL Server*
- **Small:** *mySQL(free), PostGre (free), access*

Data Structure & Algorithm Design



➤ Data Structure & Algorithm

---- *nerves & muscles*

➤ Link all the components
together to have them work as
a whole system.







- ◆ User Interface ---- *appearance*
- ◆ Criteria
 - Ease to use
 - Beauty

