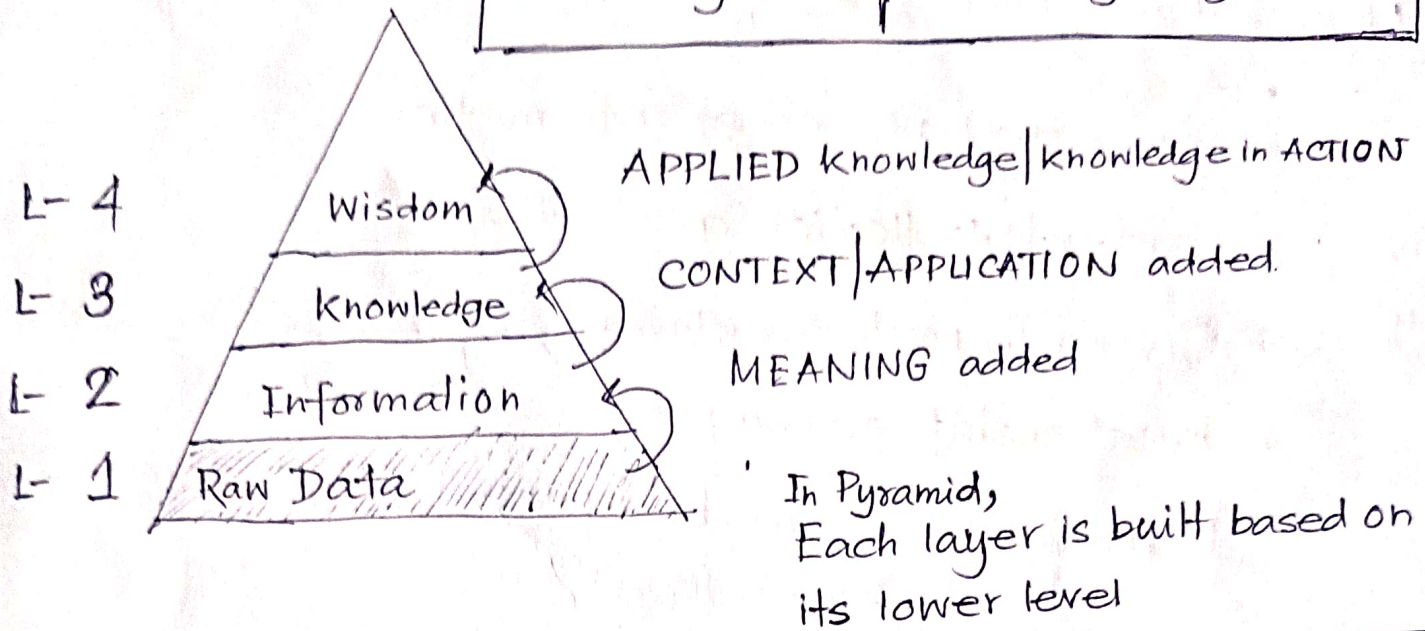
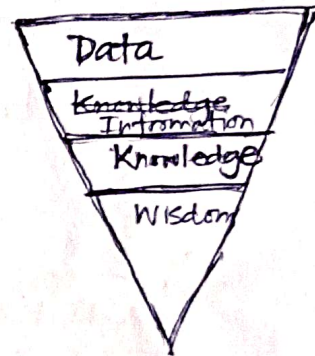


DIKW Pyramid / Knowledge Pyramid



Layer-1 Raw Data

- Raw fact, figures, symbols etc.
- Unorganized form
- Available by observation, experience
- Without context
- Foundation of all layers.
- Raw materials of information



Layer-2

Raw Data → Information

Data after processing

Who
What
Where
When

- cleaned up / Refined
- clear
- Aggregated / Combined
- Compressed / Condensed / Summerized
- Organized
- Interpreted / Made meaningful
- Validated

Layer-3

Information → Knowledge

- Analysis
- Connected pieces of information

How
Why

- Context/Application generation
- Giving shape to something
- Relationship among pieces of information
- Dynamic — can be updated/modified by new information.
- Forming pattern, trend, relationship

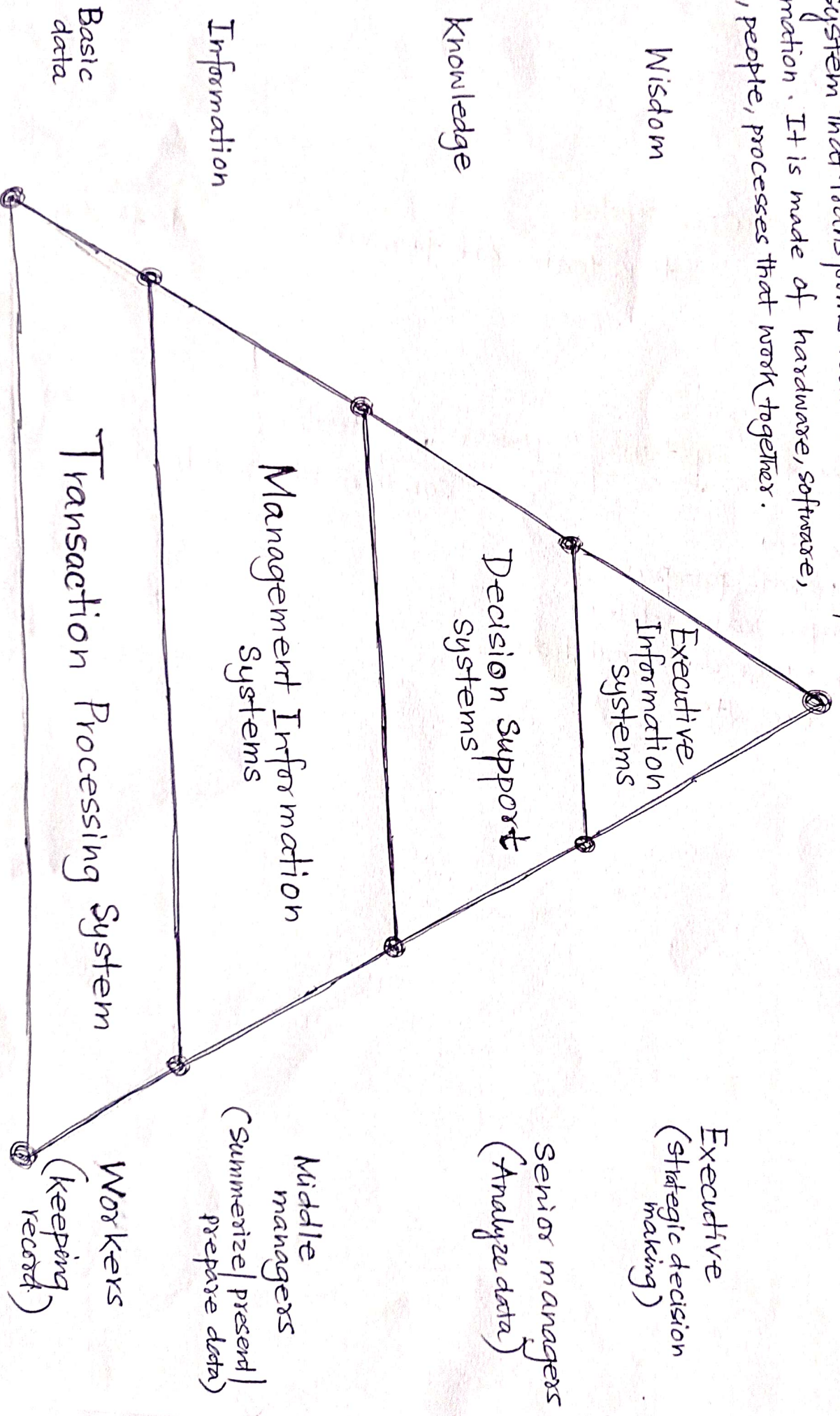
Layer-4

Knowledge → Wisdom

- Decision making knowledge
- Applied knowledge
- Principle, strategy etc.

INFORMATION SYSTEM (IS)

A system that transforms raw data into useful information. It is made of hardware, software, data, people, processes that work together.



Organizational system

How teams are formed → Staff organization

Software system | Software architecture Components & interactions

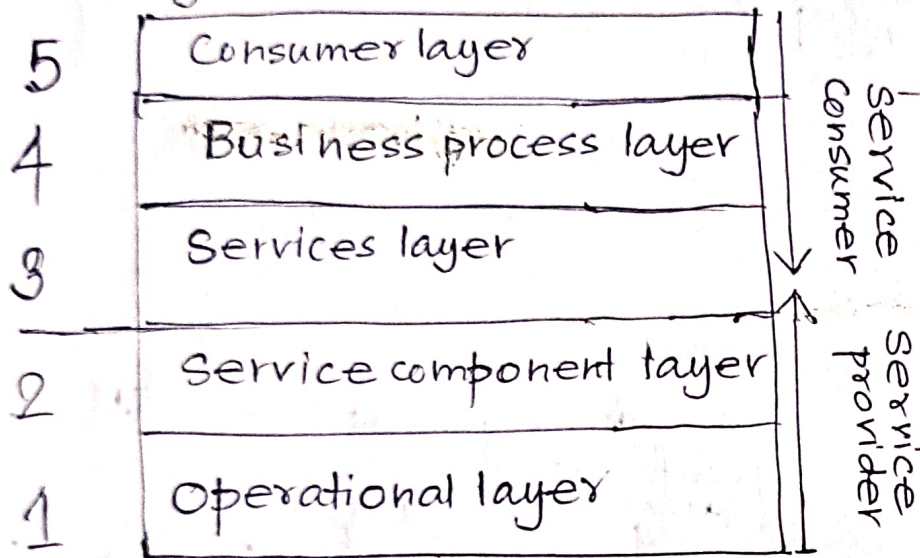
Example →

separate programs
configuration files
end user documentation
test results

Service Oriented Architecture (SOA)

A method of s/w development that uses s/w components to create business application.

Layers of SOA



1 Operational layer

- Consists of existing s/w system like various ^{applications,} packages, database, transaction processing system etc.
- Defines all technological assets.

2 Service component layer

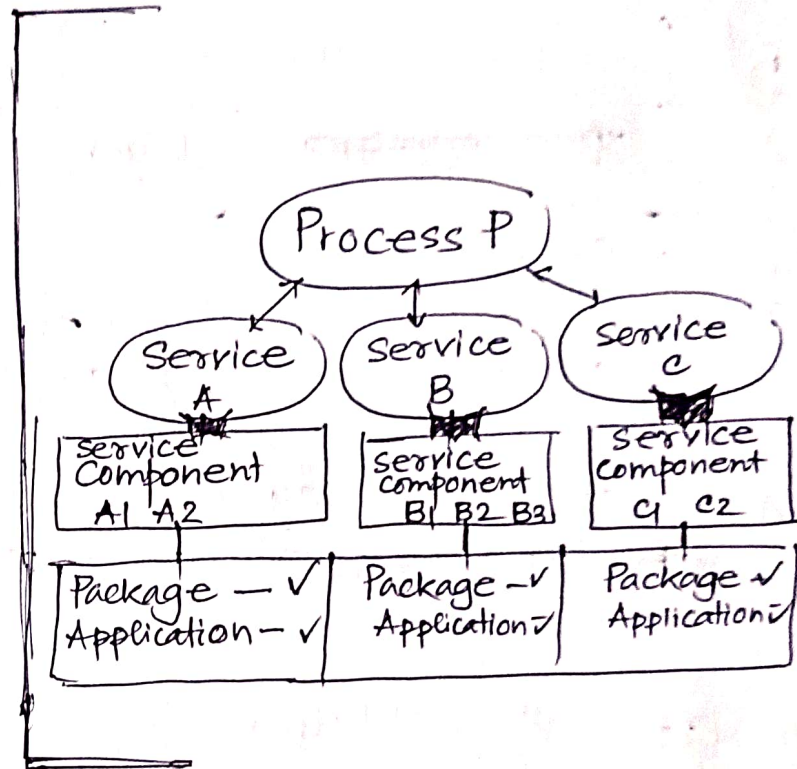
- Created ~~service~~ ^{component} using programs/technologies in operational layer
- A service component is made of one or more services

Eg. Finance component
Technical component
Management component
Accounting component

3 Service layer

- Defines all of the services in a business process
- Simplification of business

Eg. Operational service
Finance & Accounting service



4 Business process layer

- Compositions of services exposed in service layer
- Create application that supports business process.

5 Customer layer | Presentation layer

- Communicates with customer | end user, decision maker, system ~~administration~~ administrators etc.
- Prepares user's interface