

1 Introduction

2 Definition of System

an orderly arrangement
 set of
 interrelated and interdependent
 elements
 operate collectively
 to accomplish
 Common purpose or goal
 Ex Human System, Business System

3 Types of system

- 1 → Elements
 - 1 ✓ Abstract ← page 2
 - 2 ✓ Physical ← page 2
- 2 → Interactive Behavior
 - 1 ✓ Open ← page 2
 - 2 ✓ Closed ← page 2
- 3 → Degree of Human Intervention ← page 2
- 4 → Working / Output ← page 2

4 General model of the system

5 System environment

- System Definition
- System Boundary
- Sub System
 - Definition ← page 6
- Charecteristics ← page 6
- Supra System
 - ! Definition
- System Stress and System Change

6 Information

- Definition
- Attributes of Information ← page 7

7 Types of Information

- 1 → Internal Information
- 2 → External Information

8 Information system and its role in Management

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- Factors - Information Requirement ← page 8
- Computer Based Information Systems ← page 8
- Types of Information Systems ← page 8

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1 Introduction

2 Definition of System

3 Types of system

4 General model of the system

5 System environment

6 Information

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1 Elements

1 Abstract

Conceptual system or Model

orderly arrangement

interdependent

ideas or constructs

Ex: Theology

Orderly arrangement

ideas about God

← page 3

set of tangible elements

operate together

to accomplish objective

Ex

← page 3

Not a randomly assembled
set of elements

set of elements

belonging together

Common purpose or Goal

display activity and behavior

parts interact

2 Interactive Behavior

1 Open

Interacts freely

with environment

taking Input

Returning Output

Change in Environment

matches itself to
change in environmentEducation System,
Business Process System

Interacts with System

exists and influence

← page 4

Information Systems

Accepts Input

Sends Output

changes in environment

← page 4

Does not Interact

← page 4

Insulated to changes in environment

not affected by changes
in environmentThrow away Type
sealed Digital Watchcompletely isolated
from environment

Composed

← page 4

finally run down or
become disorganized

Movement to disorder is

← page 4

Organizations

Relatively Open Systems

← page 4

ENTROPY

← page 4

3 Degree of Human Intervention

1 Manual

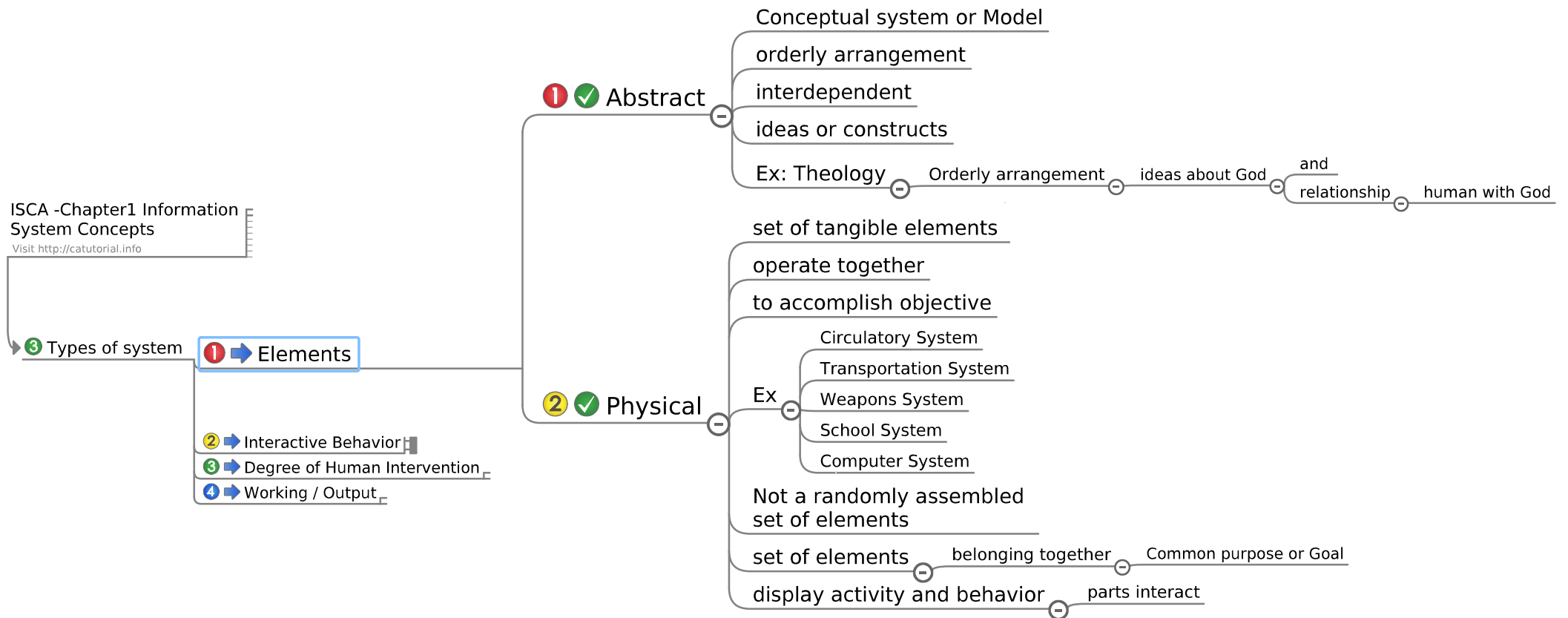
2 Automated

4 Working / Output

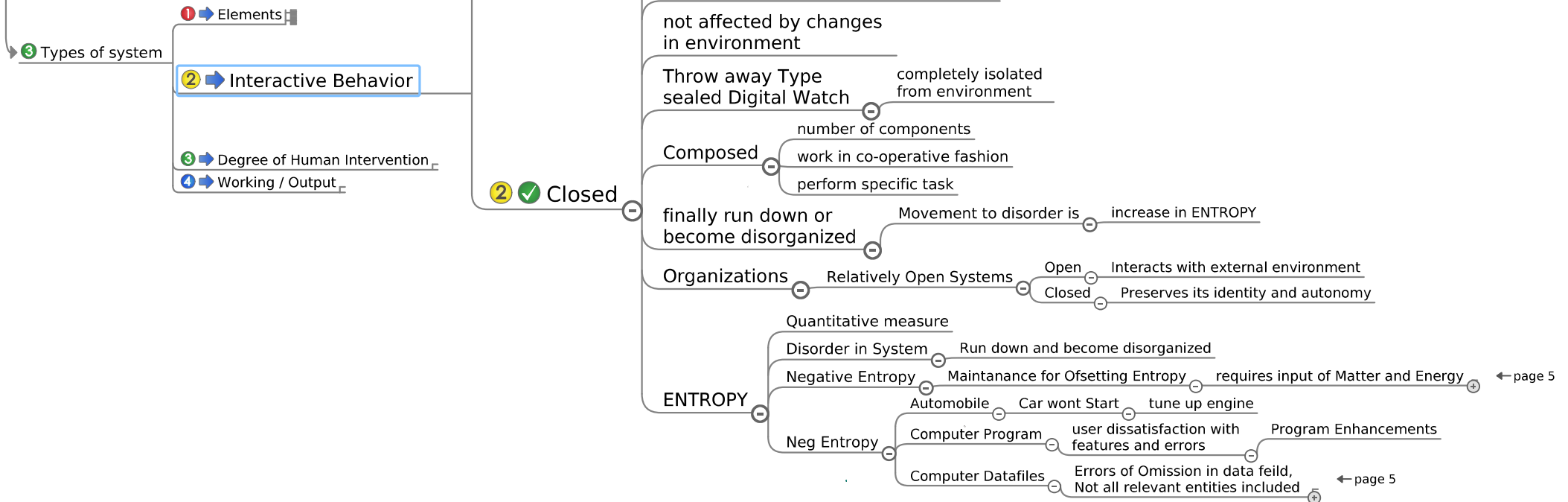
1 Deterministic

2 Probabilistic

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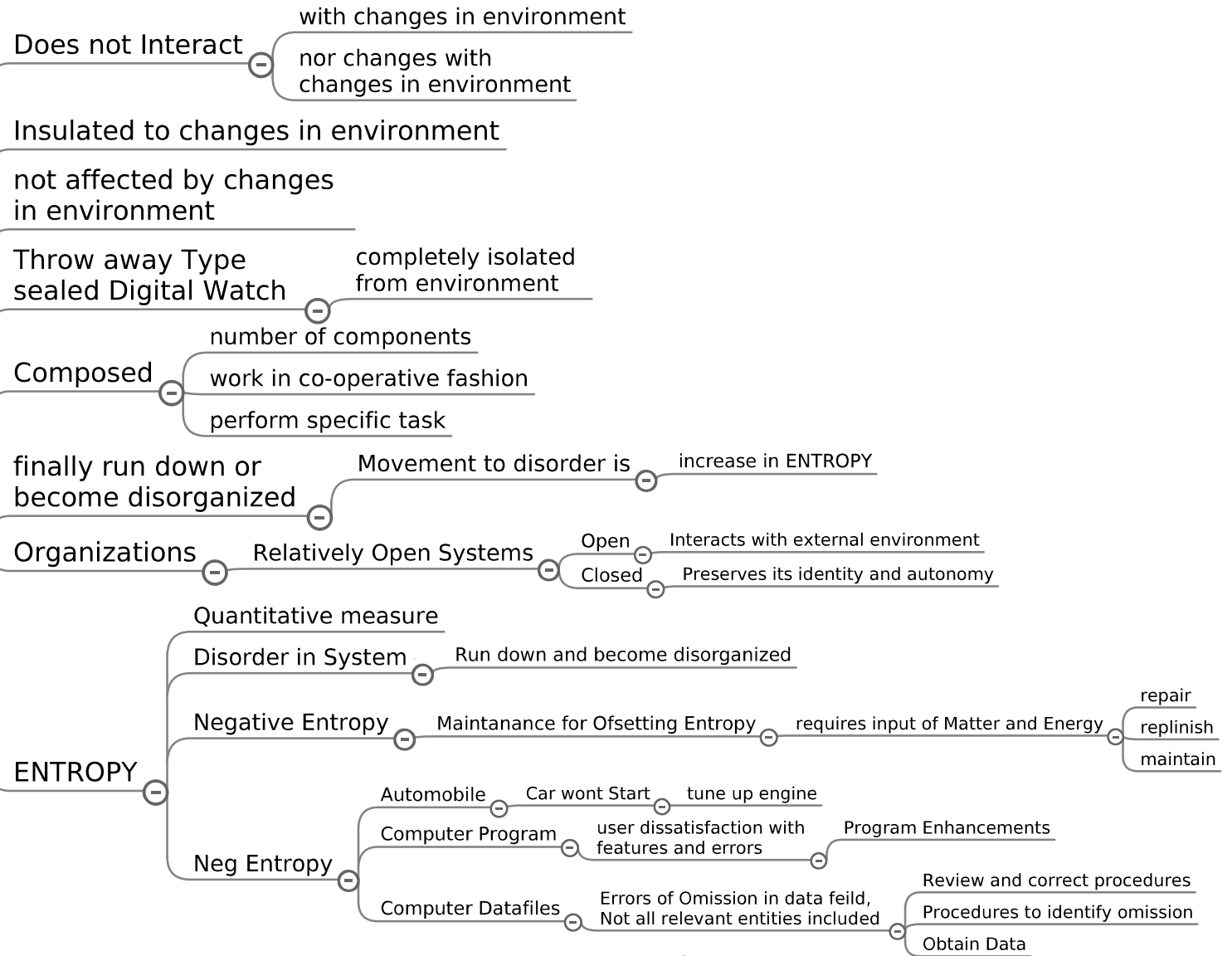
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3 Types of system

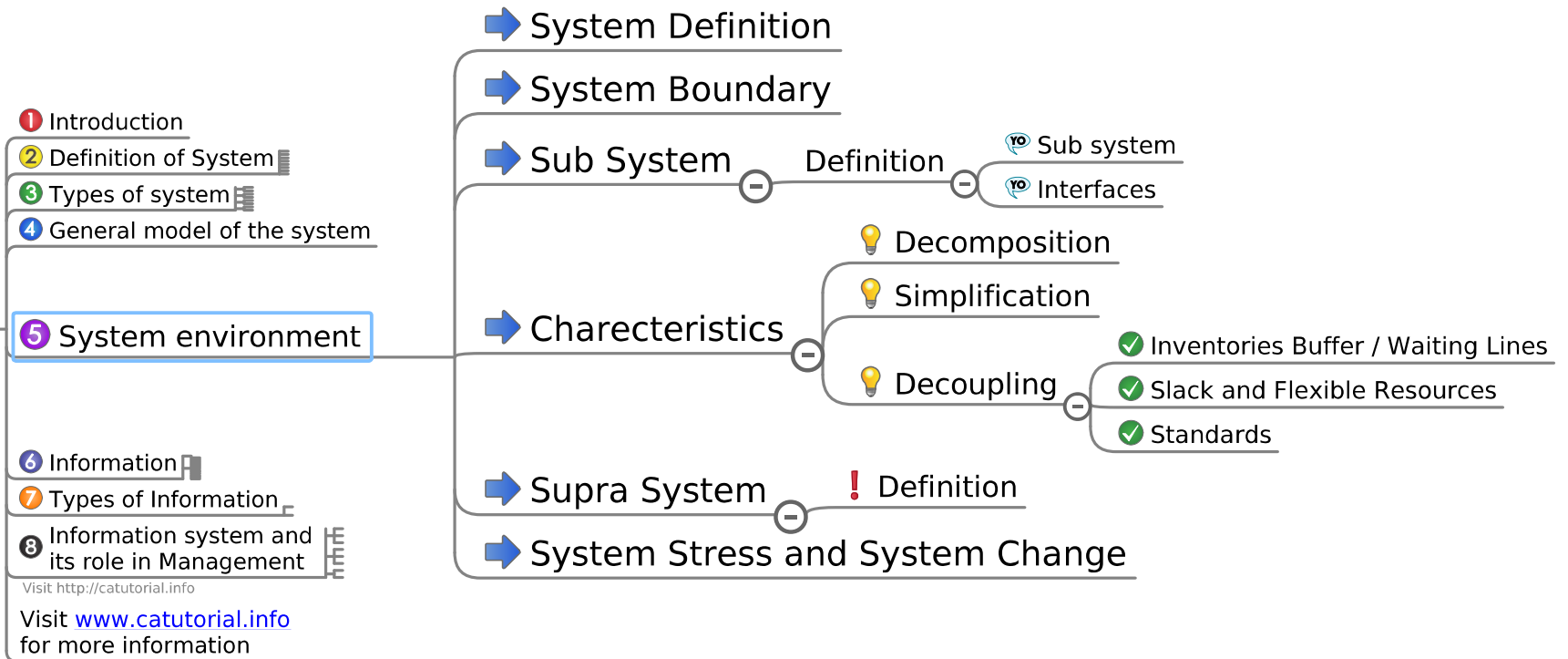
2 Interactive Behavior

1 Open

2 Closed



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➡ Definition

➡ Attributes of Information

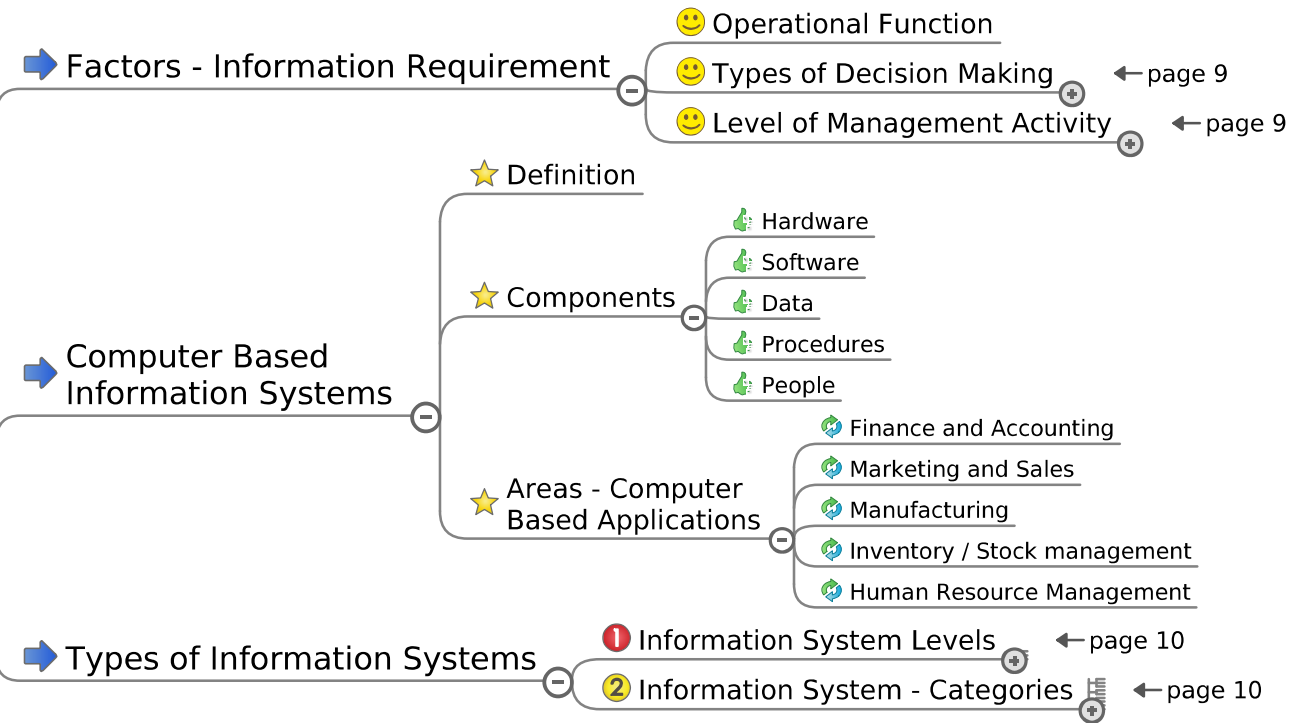
- Availability
- Purpose
- Mode and Format
- Decay
- Rate
- Frequency
- Completeness
- Reliability
- Validity
- Quality
- Transparency
- Value of Information
- Adequacy

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➡ Factors - Information Requirement

😊 Operational Function

😊 Types of Decision Making

1 Programmed Decisions

2 Non-Programmed Decisions

😊 Level of Management Activity

1 Strategic Level or Top Level

2 Tactical level or Middle Level

3 Operational Level or Supervisory Level

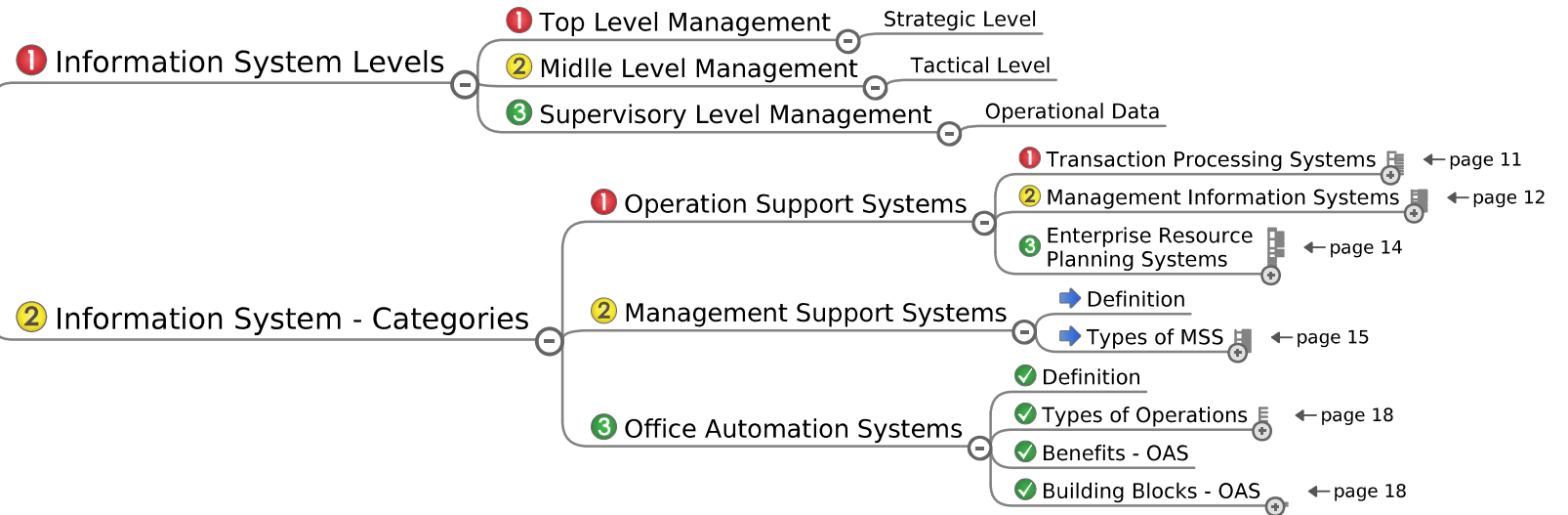
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➡ Types of Information Systems



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Types of Information Systems

2 Information System - Categories

1 Operation Support Systems

1 Transaction Processing Systems

Definition and Activities

TPS - Components

Inputs

Processing

Storage

Outputs

TPS - Features

Large Volume of Data

Automation of Basic Operations

Benefits are easily measurable

Sources of Input for Other Systems

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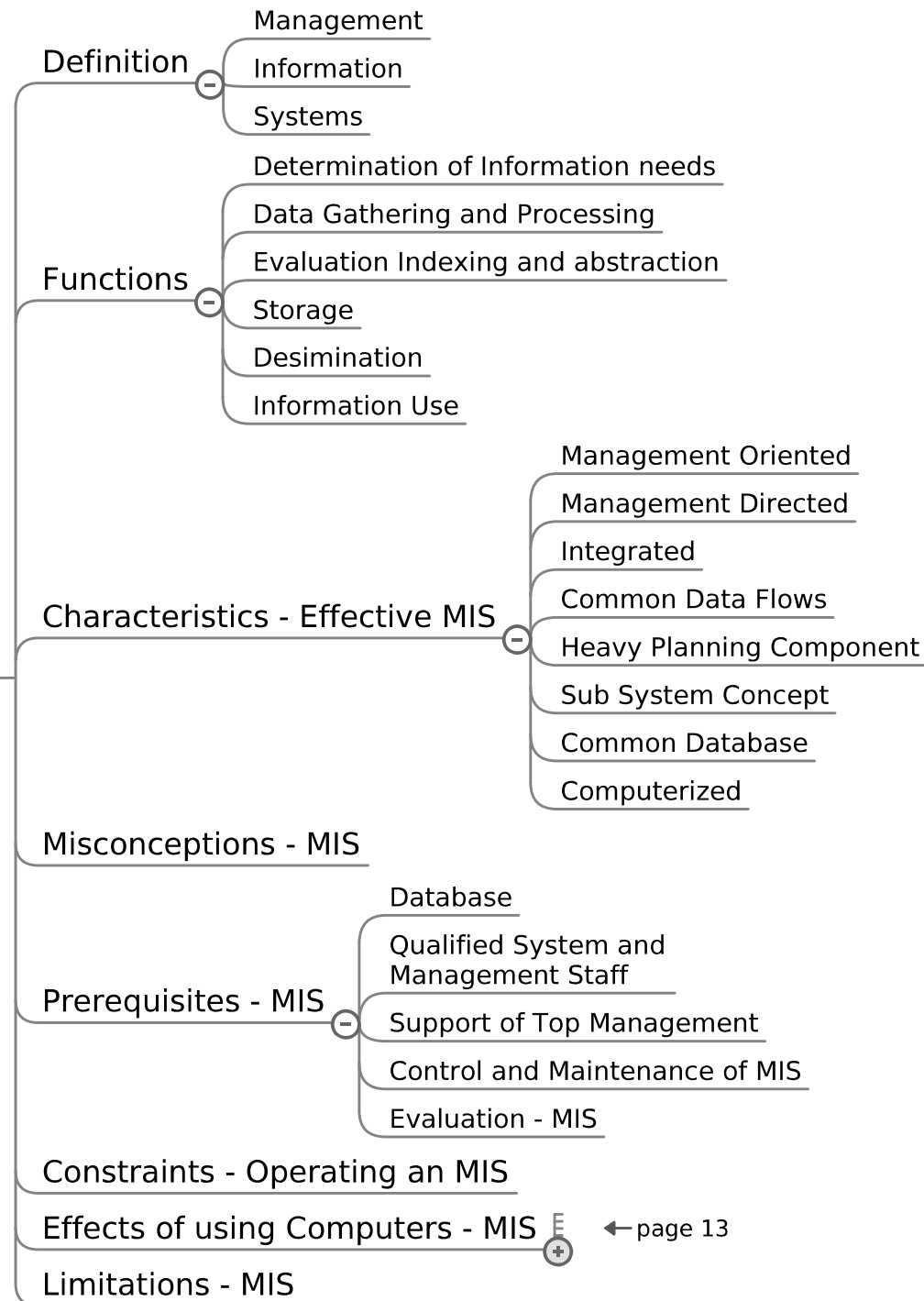
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Types of Information Systems

2 Information System - Categories

1 Operation Support Systems

2 Management Information Systems



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➡ Types of Information Systems

② Information System - Categories

① Operation Support Systems

② Management Information Systems

Effects of using Computers - MIS

Speed of processing and retrieval of data increases

Scope of Analysis widened

Complexity of system design and operation increased

Integrates the working of different Information systems

Increases the effectiveness of Information systems

More Comprehensive Information

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Types of Information Systems

2 Information System - Categories

1 Operation Support Systems

3 Enterprise Resource Planning Systems

Definition

Objectives

Integration of Various Business processes

Business System

Production

Maintenance

Quality Control

Marketing

Finance

Personnel

Consolidation of Business Operations

Myths of ERP System

Characteristics - ERP System

Flexible

Modular and Open

Integrated

Best Business Practices

Features - ERP System

Benefits - ERP System

Better use of Organizational Resources

Lower Operating Costs

Proactive Decision Making

Decentralized Decision Making

Enhanced Customer Satisfaction

Flexibility in Business Operations

Limitations - ERP System

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➔ Types of Information Systems

➔ ② Information System - Categories

➔ ② Management Support Systems ➔ Definition

➔ Types of MSS

① Decision Support System

➔ Definition - incl Programmed Decision Systems

➔ Characteristics

- ① Semi structured and Unstructured Decisions
- ② Flexibility to adapt to changing needs
- ③ Ease of Learning and use

➔ Components of DSS

- ✓ The user ← page 16
- ✓ Database
- ✓ Levels of Implementation ← page 16
- ✓ Planning Languages ← page 16
- ✓ Model Base

➔ Examples - DSS - Accounting ← page 16

② Executive Information System

★ Definition - EIS

★ Definition - Executives

★ Characteristics - EIS

★ Executive Roles and Decision Making

- ① Strategic Planning
- ② Tactical Planning
- ③ Fire Fighting

★ Executive Decision Making Environment ← page 17

★ Contents - EIS

③ Expert Systems

➔ Definition

➔ Business Applications

- Accounting and Finance
- Marketing
- Manufacturing
- Personnel
- General Business

➔ Need - Expert Systems

➔ Benefits - Expert Systems

➔ Expert System Development - Potential Qualification

- ① Availability
- ② Complexity
- ③ Domain
- ④ Expertise
- ⑤ Structure

➔ Components - ESS

- ✓ Knowledge Base
- ✓ Inference Engine
- ✓ Knowledge Acquisition Sub - System
- ✓ User Interface

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Types of Information Systems

2 Information System - Categories

2 Management Support Systems

Types of MSS

1 Decision Support System

2 Executive Information System

3 Expert Systems

Definition - incl Programmed Decision Systems

Characteristics

1 Semi structured and Unstructured Decisions

2 Flexibility to adapt to changing needs

3 Ease of Learning and use

Components of DSS

✓ The user

✓ Manager

✓ Staff Specialists (Analysts)

✓ Database

✓ Levels of Implementation

Physical Level

Logical Level

External Level

✓ Planning Languages

General Purpose Planning Languages

Special Purpose Planning Languages

✓ Model Base

Examples - DSS - Accounting

🔍 Cost Accounting System

🔍 Capital Budgeting System

🔍 Budget Variance Analysis System

🔍 General Decision Support System

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➡ Types of Information Systems

② Information System - Categories

② Management Support Systems

➡ Types of MSS

② Executive Information System

★ Executive Decision Making Environment

1 Characteristics of Types of Information used for decision Making

3 Differentiate between EIS and Traditional Information Systems

🍎 Lack of structure

🍎 High Degree of Uncertainty

🍎 Future Orientation

🍎 Informal Source

🍎 Low Level of Detail

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Types of Information Systems

2 Information System - Categories

3 Office Automation Systems

✓ Definition

✓ Types of Operations

- YO Document Capture
- YO Document Creation
- YO Receipts and Distribution
- YO Filing, Search, Retrieval and Follow up
- YO Calculations
- YO Recording Utilization of Resources

✓ Benefits - OAS

✓ Building Blocks - OAS

Text Processors and related systems

Electronic Document Management Systems

Electronic Message Communication Systems

Components

- ✓ Electronic Mail
- ✓ Facsimile (Fax)
- ✓ Voice Mail

Features

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Teleconferencing and Video Conferencing Systems

Definition

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➡ Types of Information Systems

2 Information System - Categories

3 Office Automation Systems

✓ Building Blocks - OAS

☕ Electronic Message Communication Systems

💡 Components

✓ Electronic Mail

Features

- 1 Electronic Transmissions
- 2 Online Development and Editing
- 3 Broadcasting and Re-routing
- 4 Integration with other Information Systems
- 5 Portability
- 6 Economical

✓ Fascimile (Fax)

✓ Voice Mail