


# STRUCTURED ANALYSIS

- 
- ▶ *Data modeling*
  - ▶ *Functional modeling*
  - ▶ *modeling*
-

# Data modeling

- ▶ Entity Relationship diagram
- ▶ The various components of an ERD
- ▶ Data Dictionary

# Data modeling

- ▶ Data modeling is an analysis technique that deals with the data processing part of an application.
- ▶ Deals with identify and different process that causes transformation to these data.
- ▶ Whether it is mandatory to attach an object with the another object type which is called modality.



## Entity Relationship Diagram

- ▶ The entities are Represent as a rectangle.
- ▶ The relationships are represent with the ends representing the cardinality and modality.
- ▶ The relationship of the object present in a system are represent graphically thought the ERD



## Entity Relationship Diagram

- ▶ The entities are Represent as a rectangle.
- ▶ The relationships are represent with the ends representing the cardinality and modality.
- ▶ The relationship of the object present in a system are represent graphically thought the ERD



## The various components of an ERD:

- ▶ Data object or entities
  - ▶ Attributes
  - ▶ Relationship and various indicators
-



## Data Dictionary:

Data dictionary is the place where the description and information about all data objects produced and consumed by the software system is maintained.



# Functional modeling

- ▶ Data flow Diagram
- ▶ Control flow model

# Functional modeling

- ▶ Functional modeling data flow diagram (DFD).
- ▶ Functionality flow is also known as the data flow.



## Data flow Diagram:

- ▶ Entire system is shown as a process and data are interlinked to each other.
- ▶ The four component:
  - 1.entities
  - 2.Process
  - 3.Data stores
  4. Data flow



## Control flow model:

- ▶ There are systems where the flow is controlled by events rather than by data.

# Behavior modeling

- ▶ Object oriented Analysis
- ▶ State Transition Diagram (STD)

# Behavior modeling

- ▶ The type of analysis models which try to capture the change in behaviour of system as an effect of trigger are grouped as the behaviour models.



## State Transition Diagram:

- ▶ STD represent the system states and events that trigger transition or state change.

## Object oriented Analysis:

- ▶ The attributes of the objects are represented by its class the state and the behavior.