

Analysis of Business Processes

Business Process:

- Any activity that requires movement of information between individuals, departments, or functions.
- Value to the organization & achieve goals
- E.g. process of making wage payment to an employee.

Business Analyst:

- Understand & document business process.
- Talk with the management.

Analysis Tools



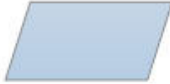


- Diagramming techniques to understand, analyse & document business process.

- Flow Diagrams

- Rectangle – activities or tasks
- Circle – data stores
- Small circles – Start and end points

- Flow Charts

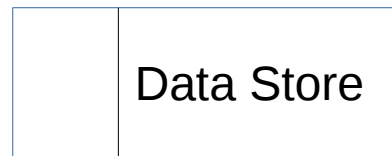
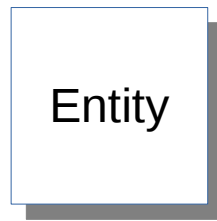
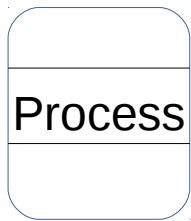
- Represents algorithms

Symbol	Name	Function
	Start/end	An oval represents a start or end point
	Arrows	A line is a connector that shows relationships between the representative shapes
	Input/Output	A parallelogram represents input or output
	Process	A rectangle represents a process
	Decision	A diamond indicates a decision

Analysis Tools

Data Flow Diagrams:

- Represents sources of the data, processes that modify the data, the storage of data and manner in which data flow.
- Symbols:



Analysis Tools

Use Cases:

- Text description of a process in which some user involved.
- Template:
 1. Name
 2. Description
 3. Actor
 4. Precondition
 5. Trigger
 6. Scenario
 7. Alternate paths
 8. Business Rules

Life Cycle Models

Waterfall Model

Spiral Model

Rapid Prototyping

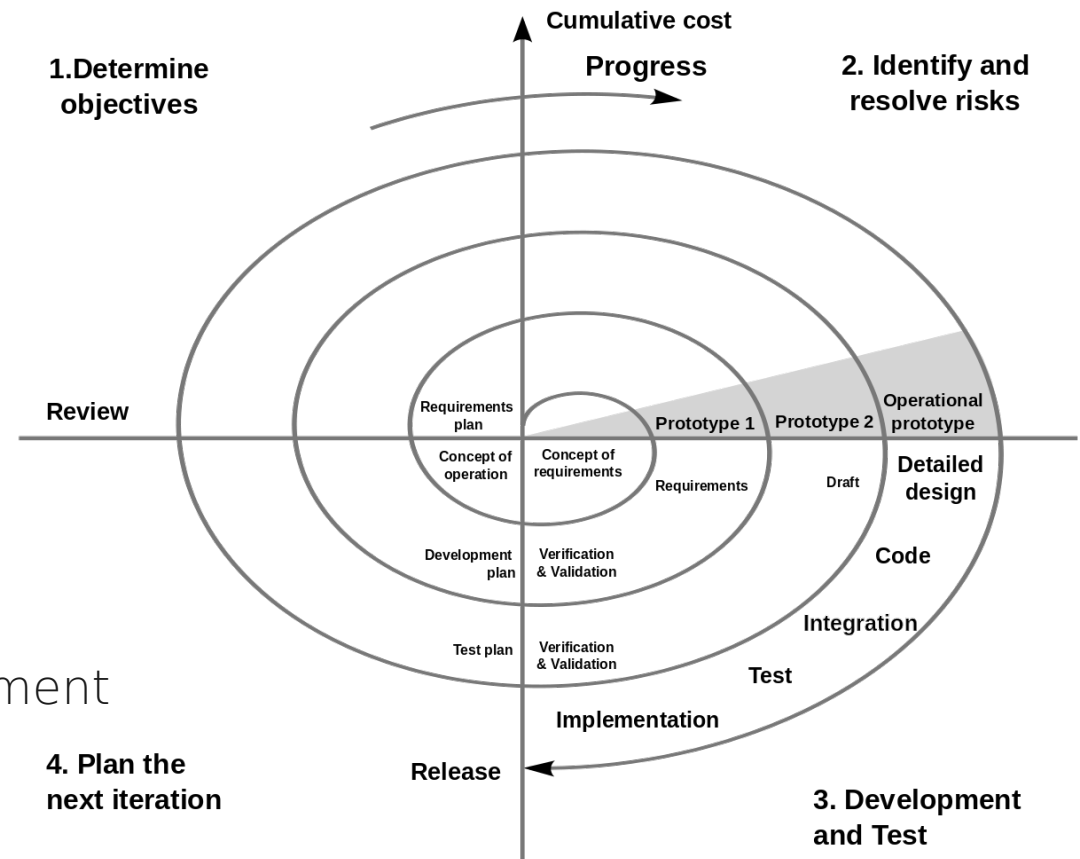
Agile Methods

- **Extreme Programming**

- Stories, short releases,
- testing, iteration, refactoring
- Pair programming, work environment
- metaphors

- **Scrum**

- Product owner, ScrumMaster, Team Member, product backlog and sprint backlog, burn down chart



Software Project Management

- **Top Management Support**
- **Team Composition**
- **Vendor Selection**
- **Project Estimation**
- **Function Point Analysis**

The Need for Data Management

- **History of Data Use**
- **Challenges of Data Management**
 - Data Independence
 - Reduced Data Redundancy
 - Data Consistency
 - Data Access
 - Data Administration
 - Managing Concurrency
 - Managing Security
 - Recovery from Crashes
 - Application Development

Database Concepts

- **Fields, Records & Files**
- **Basic Architecture**
 - Client-Server(two-tier architecture) Architecture
 - Three-tier database architecture
 - Distributed databases architecture

Database Design

Elements of Databases:

- Tables
- Forms
- Queries
- Reports
- Metadata

SQL

Commercial Databases

E-R Diagrams

Data Warehouses

Data Mining Uses

