ITIL

- ❖ Information Technology Infrastructure Library
- ❖ ITIL is a framework for IT service management
  (ITSM -Information Technology Service Management)
- ❖ ITSM encompasses various processes, policies, & procedures aimed at designing, delivering, managing, & improving the way IT services are utilized within an organization.
- ❖ For business ITIL provides best practice & technique for:
  - o Selecting
  - o Planning
  - o Delivering
  - o Maintaining
- ❖ **ITIL history Timeline:**
  - o ITIL V1 → 1989
    - ▪ Developed for providing best IT services.
    - ▪ ITIL framework contains 5 core processes:
      1. Planning
      2. Manage
      3. Operate
      4. Optimize
      5. Review
  - o ITIL V2 → 2001
    - ▪ This version is altered so that Microsoft Operation Framework foundation (MOF) can accommodate it.
    - ▪ New integrated management tool.
    - ▪ Emphasis on flexible working assignments to help adapt to emerging market.
  - o ITIL V3 → 2007
    - ▪ The main goal was to create comprehensive framework that covers all major areas of ITSM.
    - ▪ Improved process management, service delivery, & change management.
  - o ITIL V4 → 2019
    - ▪ It contains major core processes:
      1. Service design
      2. Delivery
      3. Change
      4. Maintenance
      5. Analytics
    - ▪ It considered to be the best version & it focuses on practices like AGILE & DevOps.

NOTE:
  AGILE
- • The Agile methodology is a way to manage a project by breaking it up into several phases (Iterations).
- • It is one of the simplest & effective processes to turn a vision for a business need into software solutions.

> **DevOps**
> - DevOps is a combination of software development (dev) and operations (ops).
> o It is defined as a software engineering methodology which aims to integrate the work of development teams and operations teams by facilitating a culture of collaboration and shared responsibility.

❖ **Key Concepts of ITIL**
  o Service Lifecycle
    ▪ It consists of various stages like:
      1. Service Strategy
      2. Service Design
      3. Service Transition
      4. Service Operation
      5. Continual Service Improvement (CSI)
  o Processes
    ▪ Defines the set of processes for IT including:
      1. Incident Management
      2. Problem management
      3. Change Management
      4. Service level Management
  o Functions
    ▪ ITIL describes functions within organization that supports IT services like service desk, application management.
  o Roles & responsibilities
    ▪ ITIL outlines various roles & responsibilities to ensure effective services delivery & support.

❖ **Benefits of ITIL**
  o Lower cost
  o High Quality of IT services
  o Increased Business Productivity
  o Improved Return on Investment (ROI)
  o Greater Satisfaction
  o Improved resources utilization

❖ **What is ITSM**
  o It focuses on meeting the need of customers & aligning IT services with business objectives.
  o ITIL is a specific framework for ITSM, providing detailed guidance on processes, functions, roles, & best practices, while ITSM is a broader concept encompassing then overall management & delivery of IT services within an organization.
  o Both ITIL & ITSM aim to improve the quality, efficiency, and& alignment of IT services with business objectives.

❖ **Core Principles of ITSM**
  o Customer Focus
    ▪ It focuses on the needs of the customer.
    ▪ It helps in identifying customer requirements, defining service levels & continuously improving the delivery to enhance customer satisfaction.
  o Service Orientation
    ▪ It helps in designing, delivering, & managing the services.

- o Process Orientation
  - It helps in standardizing the activities, improving efficiency & ensuring consistency in service delivery.
- o Continuous Improvement
  - It initiates the aim to optimize service quality, efficiency & business alignment with the need.
  - It also regularly assesses IT services, processes & performance.

❖ **Various frameworks of ITSM**
- o ITIL
- o TOGAF
- o Business Process framework (eTOM)
- o COBIT (Control Objective for Information & related Technologies)
- o FitSM
- o ASL
- o USM
- o BiSL
- o MOF (Microsoft Office Framework)

❖ **Key Components of ITSM**
- o Service Strategy
  - This focuses on development strategies of IT services.
  - This includes the market demand & defining services portfolios.
- o Service Design
  - It focuses on activities like service catalog management, service level agreement (SLA), capacity management, availability management.
- o Service Transition
  - It manages the transition of new service or changed service into the production environment with minimum disruption or risk.
  - It includes change management, release management, employment management, & knowledge management.
- o Service Operation
  - It ensures the ongoing delivery & support of IT services to meet SLA.
  - It includes incident management, problem management, event management, request fulfillments, access management.
- o Continual service Improvement (CSI)
  - CSI focuses on identifying the opportunities, efficiency & effectiveness of its services.
  - It includes performance data, conducting services reviews, optimizing the service delivery process.

❖ **Benefits of using ITSM**
- o Improved service Quality
- o Increased Efficiency
- o Enhanced Customer Satisfaction
- o Better Decision Making
- o Risk Reduction
- o Cost Optimization

❖ **Basic Concept of ITIL V4**
- o Service Value System (SVS)
  - It is the core or ITIL v4
  - It represents the overall model for creating value throughout the IT services.

- It includes:
    1. SVC
    2. Guiding principle
    3. Continual improvements
    4. Best Practices
- Service Value Chain (SVC)
    - It's a flexible operating model for creation, delivery & supporting IT services.
    - It contains keys:
        1. Plan
        2. Improve
        3. Engage
        4. Design
        5. Transition
        6. Deliver & Support
- Guiding Principle
    - 7 guiding principles are used for guiding operations in making-decision & service management:
        1. Focusing Values
        2. Where you are (progress in the project)
        3. Progressing iteratively with feedback
        4. Collaborating & promoting visibility
        5. Thinking & working Holistically
        6. Keeping it simple & practical
        7. Optimizing & automating
- 4th Dimension of service management
    - Organization & people
    - Information & Technology
    - Partners & Suppliers
    - Value streams & processes
- Service Value System (SVS) Components
    - Service Value Chain
    - Practices
    - Guiding principles
    - Governance
    - Continual improvement
- ITIL practices
    - Service desk
    - Incident management
    - Change control
    - Service level management
- Continual Improvements
    - Regular assessments & improvements of service management.
    - It helps organization to adapt changes according to the market needs.

❖ **RACI**

R – Responsible
A – Accountable
C – Consulted
I – Informed

- It is widely used technique for clarifying & defining the roles & responsibilities within a project.
- **Responsible**
  - This role refers to the person or group who is "responsible for performing" the task.
  - They are the one who are directly involved in executing the work
  - We can have any number of responsible people in the team.
- **Accountable**
  - This role refers to a person who ultimately owns the task.
  - This person is an individual person & ensures that the task is done correctly & on time.
  - Every task or every activity needs at least 1 accountable person.
- **Consulted**
  - This role refers to individual person or group who provides input or expertise to the task.
  - But these people are not directly responsible for its execution.
  - They may offer advices, feedback or information to support the completion of the tasks.
- **Informed**
  - This role refers to individual or groups who needs to be kept informed about the progress or outcome of the task.
  - They are not directly involved in the execution
  - But these people / group must be informed

♦ **RACI Matrix -Task v/s People**

	TASKS	Mom	Dad	Kid 1	Kid 2
1	Groceries	A, I	R	C	C
2	Laundry	A, I	C	R	R
3	Dish Washing	A, R		I	I
4	Cooking	A	R	C	I

Step	Project Initiation	Project Executive	Project Manager	Business Analyst	Technical Architect	Application Developers
1	Task 1	C	A/R	C	I	I
2	Task 2	A	I	R	C	I
3	Task 3	A	I	R	C	I
4	Task 4	C	A	I	R	I

- **How to create RACI matrix?**
  1. Identify the roles of the project.
  2. Identify the tasks & deliverables of the projects.
  3. Assign tasks to each role.
  4. Share with your team.
  5. Share with the major stakeholders.

- o **Rules of a RACI matrix**
  - Every row must contain a **"R" – Responsible**.
  - There should be a single **"A" – Accountable** for a task.
  - Not too many **"C" – Consulted** for a task.
- o **Disadvantages of RACI**
  - It can add confusion through a lack of understanding of differences between the terms.
  - It can be time-consuming to create.
  - It's often ignored after approval.
  - It can add unnecessary complexity to a project.
  - I t does not account for the approval process on tasks or deliverables.
- o **RACI Alternatives:**
- 1. **DACI**
  - **D = Driver** → Responsible individual in charge of making sure a decision is made.
  - **A = Approver** → People who make final decision.
  - **C = Contributor** → Experts that drivers ask for help.
  - **I = Informed** → People informed of the final decision.
- 2. **RASCI**
  - **R = Responsible** → Who needs to make sure the project reaches completion.
  - **A = Accountable** → Who was ultimate control over the project.
  - **S = Support** → Who will provide help to responsible members.
  - **C = Consulted** → Who will give advice to the responsible members.
  - **I = Informed** → Who needs to be kept in the loop at every stage.
- ♦ **Difference between ITIL v3 & ITIL v4**

	ITIL v3	**ITIL v4**
Service Value System (SVS)	Focuses on service life cycle.	Introduces the service value system (SVS).
Service Value Chain (SVC)	Doesn't include the concept of a service Value Chain.	ITIL 4 introduces the service Value Chain.
Guiding Principle	V3 doesn't explicitly define a set of guiding Principles	ITILv4 introduces seven Guiding Principles.
Four Dimensions of Service management	V3 doesn't explicitly define four dimensions of service management.	ITIL4 expands the focus beyond traditional processes & functions
Flexible & Integration	Provides a structures approach to IT service management	ITIL 4 emphasizes flexibility & integration