SERVICES SCIENCE AND SERVICE OPERATIONAL MANAGEMENT

UNIT 01

LECTURE 01

01 Service – Definition

1.1	Characteristics
1.2	Stages of Economic Development
1.3	Role of Services in Economy
1.4	Experience Economy
1.5	Service Science
1.6	Service Dominant Logic
1.7	Service Systems

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21MGH402T SERVICES SCIENCE AND SERVICE OPERATIONS MANAGEMENT
SYLLABUS

Unit-1 - Service – Definition	***9 Hour***
Characteristics, Stages of economic development, Role of services in economy, Experience economy, Service science, Service dominant logic, Service systems, Service operations, Open system view of service operations, Service package, Strategic service vision, Competitive service strategies, Strategic analysis, Sustainability in services, Competitive role of information in services	
Unit-2 - New Service Development	***9 Hour***
Innovation in services, Service blueprinting, Service process design, Service system design, Service facility design and layout, Strategic location considerations, Service process analysis, Service encounter triad - Service organization, Contact personnel and Customer, Service profit chain, Technology in service encounter	
Unit-3 - Service Quality Dimensions	***9 Hour***
Measuring service quality – SERVQUAL gap model, walk through audit, Service quality by design, achieving service quality, Quality and productivity improvement process, Quality tools, Benchmarking, Improvement programs	
Unit-4 - Strategies	***9 Hour***
Strategies for managing service demand and service capacity, Forecasting service demand, Forecasting models – Subjective models, Causal models and Time-series models, Yield management and its application, Queuing systems, Essential features of queuing systems	
Unit-5 - Managing Service Projects	***9 Hour***
Characteristics of project, Project management – Principles, Process, and Building team, Selecting the project manager, Roles and responsibilities of project manager, Techniques for project management – PERT, CPM and Gantt charts, Monitoring project performance, Globalization of services, Global service strategies, Domestic growth and expansion strategies, Franchising	

SSSOM Syllabus

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1.8	Service Operations
1.9	Open System View of Service Operations
1.1	Service Package
1.11	Strategic Service Vision
1.12	Competitive Service Strategies
1.13	Strategic Analysis
1.14	Sustainability in Services
1.15	Competitive Role of Information in Services

Unit-2 New Service Development

2.1	Innovation in Services
2.2	Service Blueprinting
2.3	Service Process Design
2.4	Service System Design
2.5	Service Facility Design and Layout
2.6	Strategic Location Considerations
2.7	Service Process Analysis
2.8	Service Encounter Triad – Service Organization, Contact Personnel and Customer
2.9	Service Profit Chain
2.10	Technology in Service Encounter

Unit-3 Service Quality Dimensions

3.1	Measuring Service Quality
3.2	SERVQUAL Gap Model
3.3	Walk Through Audit
3.4	Service Quality by Design
3.5	Achieving Service Quality
3.6	Quality and Productivity Improvement Process
3.7	Quality Tools
3.8	Benchmarking
3.9	Improvement Programs

Unit-4 Strategies

4.1	Strategies for Managing Service Demand and Service Capacity
4.2	Forecasting Service Demand
4.3	Forecasting Models – Subjective Models
4.4	Forecasting Models – Causal Models
4.5	Forecasting Models – Time-Series Models
4.6	Yield Management and its Application
4.7	Queuing Systems
4.8	Essential Features of Queuing Systems

Unit-5 Managing Service Projects

5.1	Characteristics of Project
5.2	Project Management – Principles, Process and Building Team
5.3	Selecting the Project Manager
5.4	Roles and Responsibilities of Project Manager
5.5	Techniques for Project Management – PERT
5.6	Techniques for Project Management – CPM
5.7	Techniques for Project Management – Gantt Charts
5.8	Monitoring Project Performance
5.9	Globalization of Services
5.1	Global Service Strategies
5.11	Domestic Growth and Expansion Strategies
5.12	Franchising

Lecture 01 Topics

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1.0.1 BASIC TERMINOLOGY

SERVICE

is an act of helpful activity

SCIENCE

is the pursuit and application of knowledge and understanding of the natural and social world following a systematic methodology based on evidence.

SERVICES SCIENCE

a branch of applied science that studies service design, delivery, and management

MANAGEMENT

is the control and organization of something

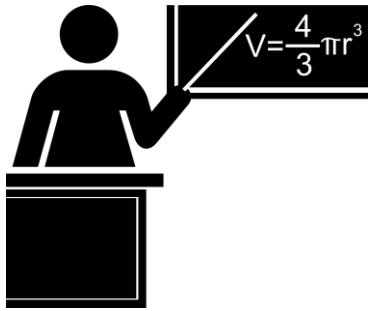
OPERATION

is performance of a practical work or of something involving the practical application of principles or processes

SERVICE OPERATIONS MANAGEMENT

is a critical function in any service industry which involves planning, coordinating, and controlling the resources and processes required to meet customer demand.

Q 1) Which of the following is considered as a “Service”?



1. TEACHER

2. DOCTOR

3. BARBER

4. MECHANIC

5. HOTEL SERVER

A. ONLY “HOTEL SERVER”

B. ONLY “DOCTOR”

C. ONLY “DOCTOR” & “TEACHER”

D. ALL OF THEM

Q 2) “GST” stands for?

A. General Sales Tax

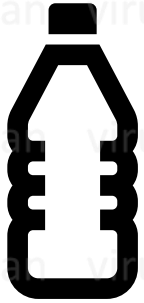
B. General Service Tax

C. Goods and Services Tax

D. None of these

Q 3) Which of the following is considered as a “Goods”?

1. CAR



2. COOLDRINK

3. MOBILE

4. RICE BAG

5. CHOCOLATE

A. ONLY “RICE BAG”

B. ONLY “CAR”

C. ONLY “MOBILE”

D. ALL OF THEM

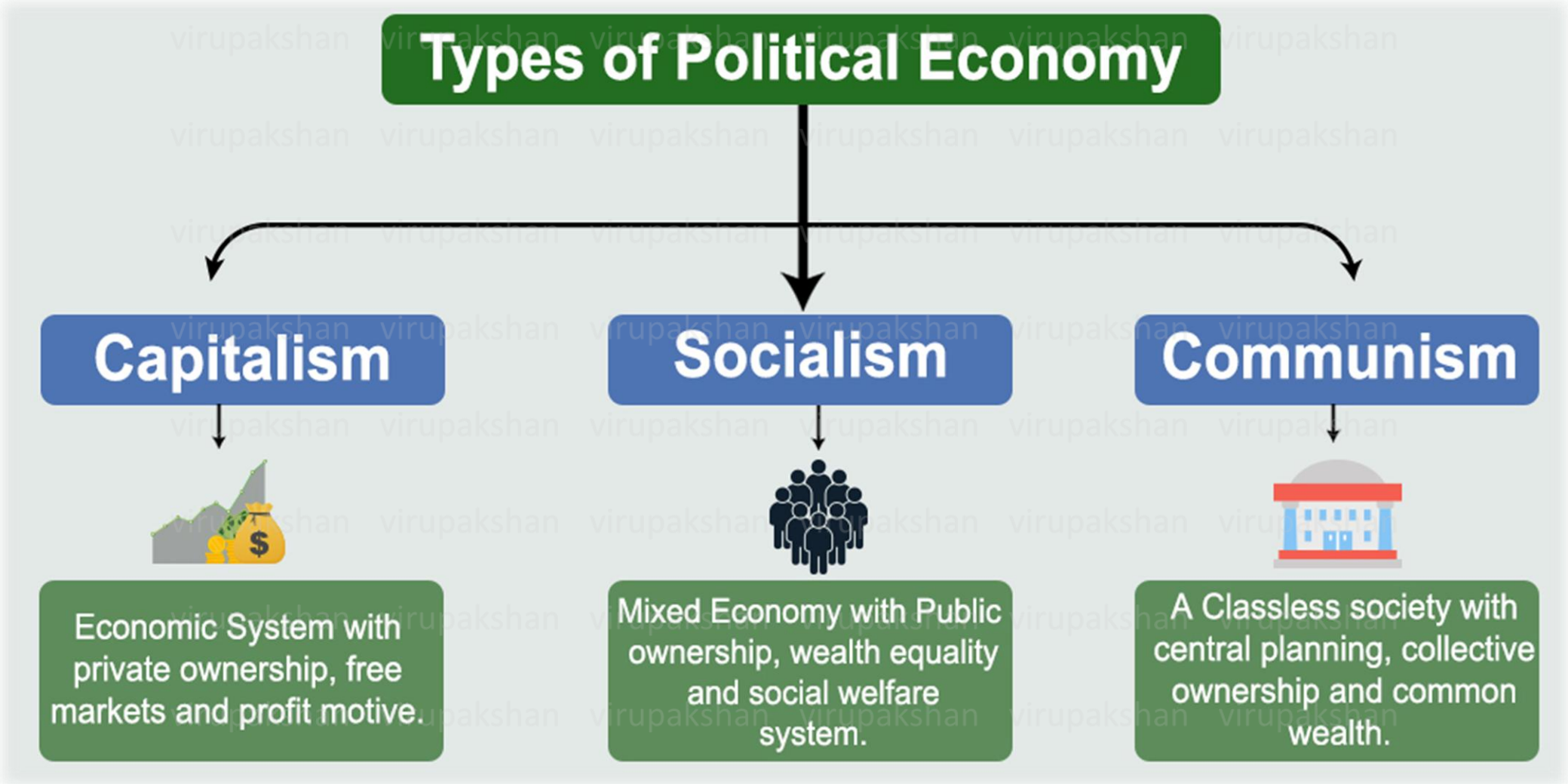
1.0.2 Economy & Economics

An **economy** is a complex system of interrelated production, consumption, and exchange activities, which ultimately determine how resources are allocated among participants.

The **production**, **distribution**, and **consumption** of **goods and services** combine to fulfill the needs of those living and operating within the economy.

Economics studies the production, distribution, and consumption of wealth and goods.

1.0.3 TYPES OF ECONOMY (Political)

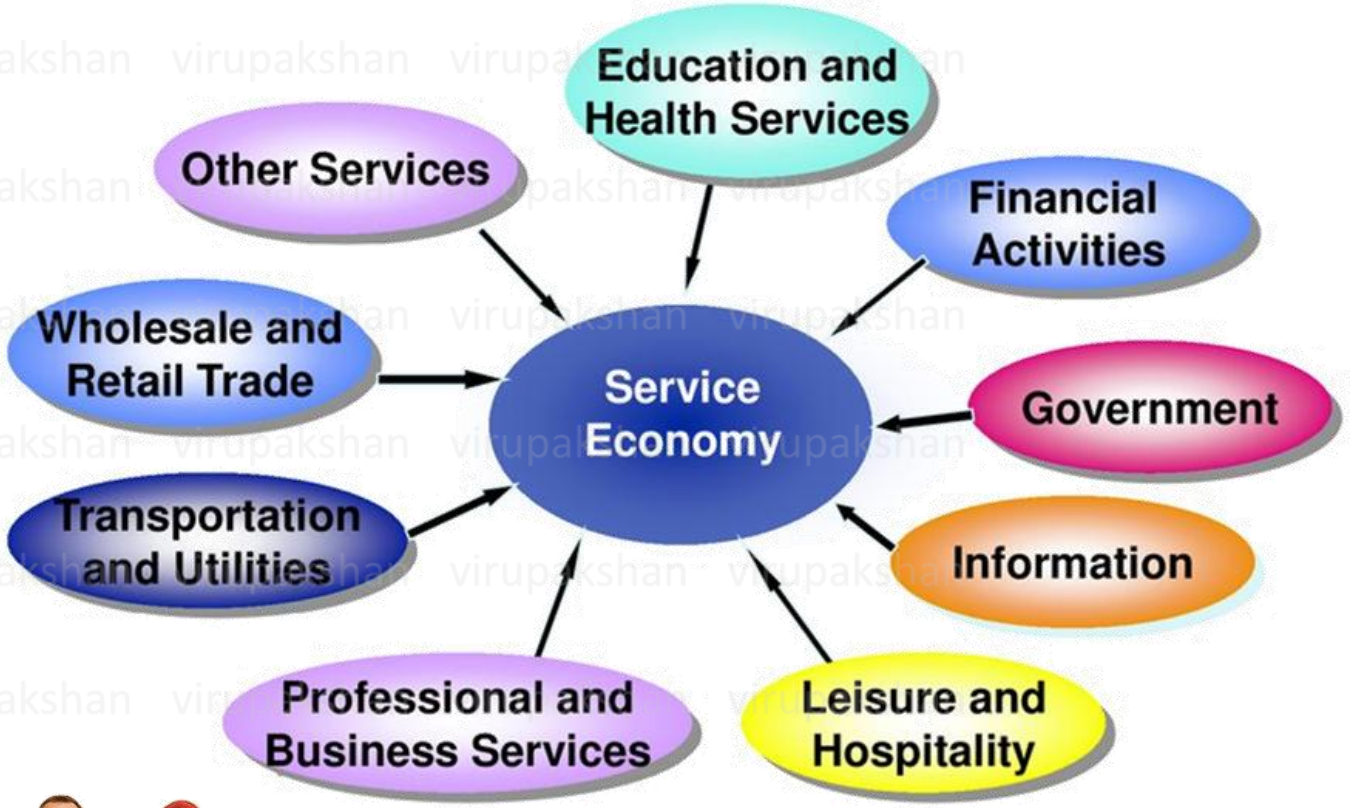


1.0.4 TYPES OF ECONOMY (Sectors)

Primary	Secondary	Tertiary
Agriculture	Manufacturing Industries	Service Sector
Fishing		
Dairy		
Forestry		

1.0.5 SERVICE ECONOMY

Service Economy is an economy based on providing services rather than manufacturing or producing goods.



Q 4) Which one of these is ODD?

A) accenture

B) Infosys

C) Microsoft

D) TATA CONSULTANCY SERVICES

1.0.6 Service Income vs Product Income

Service Income

accenture

Infosys

TATA CONSULTANCY SERVICES

Product Income

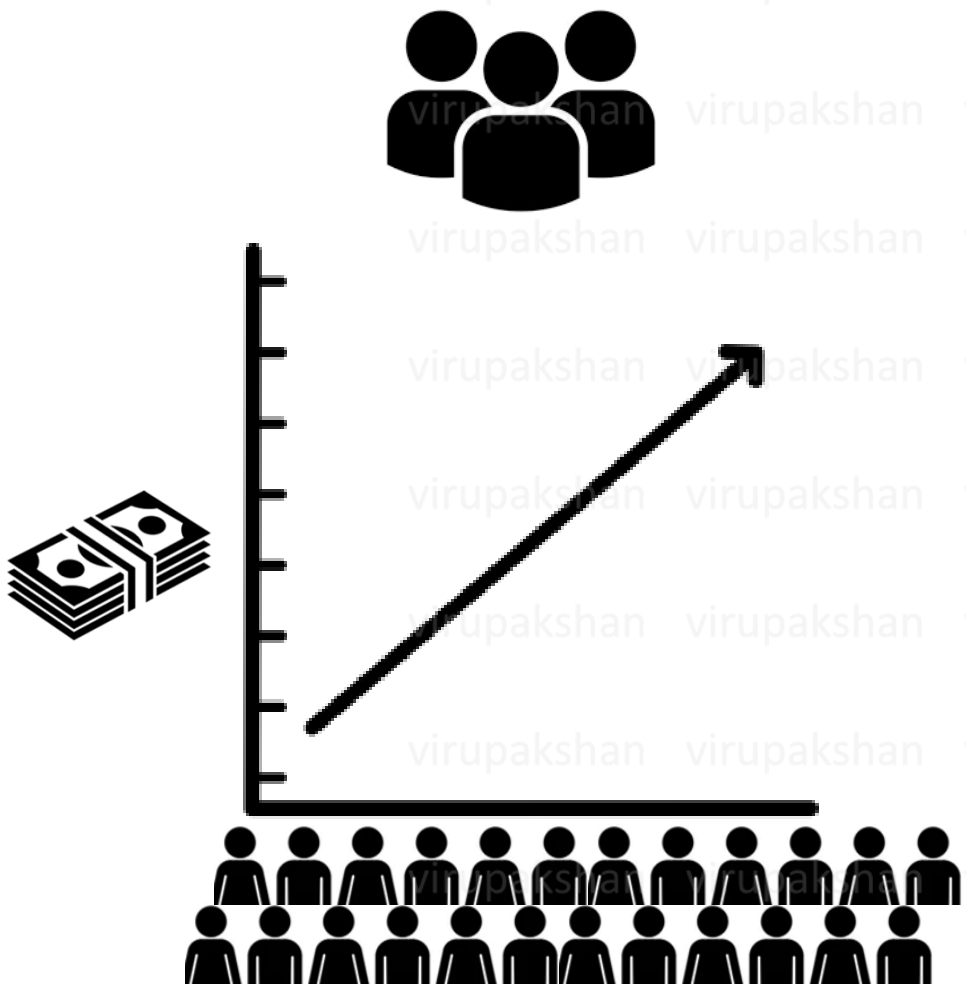
Microsoft

Apple

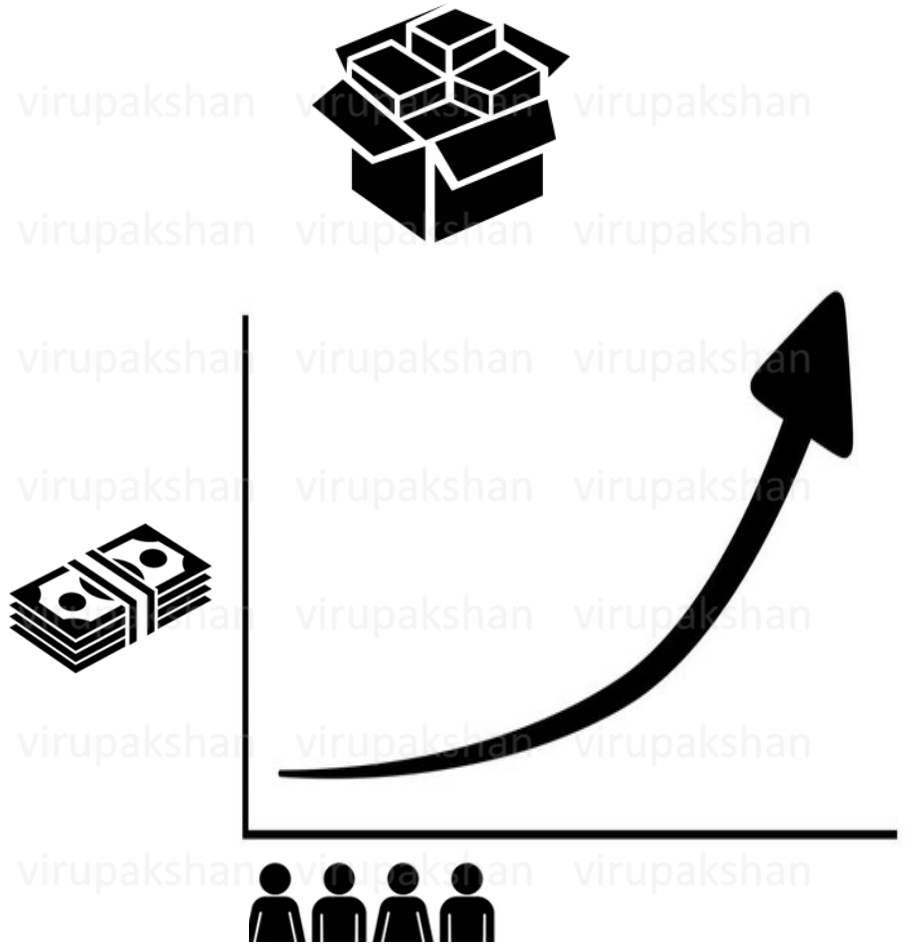
SAMSUNG

1.0.7 Service Income vs Product Income

Service Income



Product Income



1.1.0 CHARACTERISTICS OF SERVICE OPERATIONS

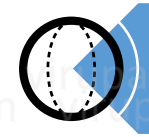
COMPLEXITY

SIMULTANEITY

PERISHABILITY

INTANGIBILITY

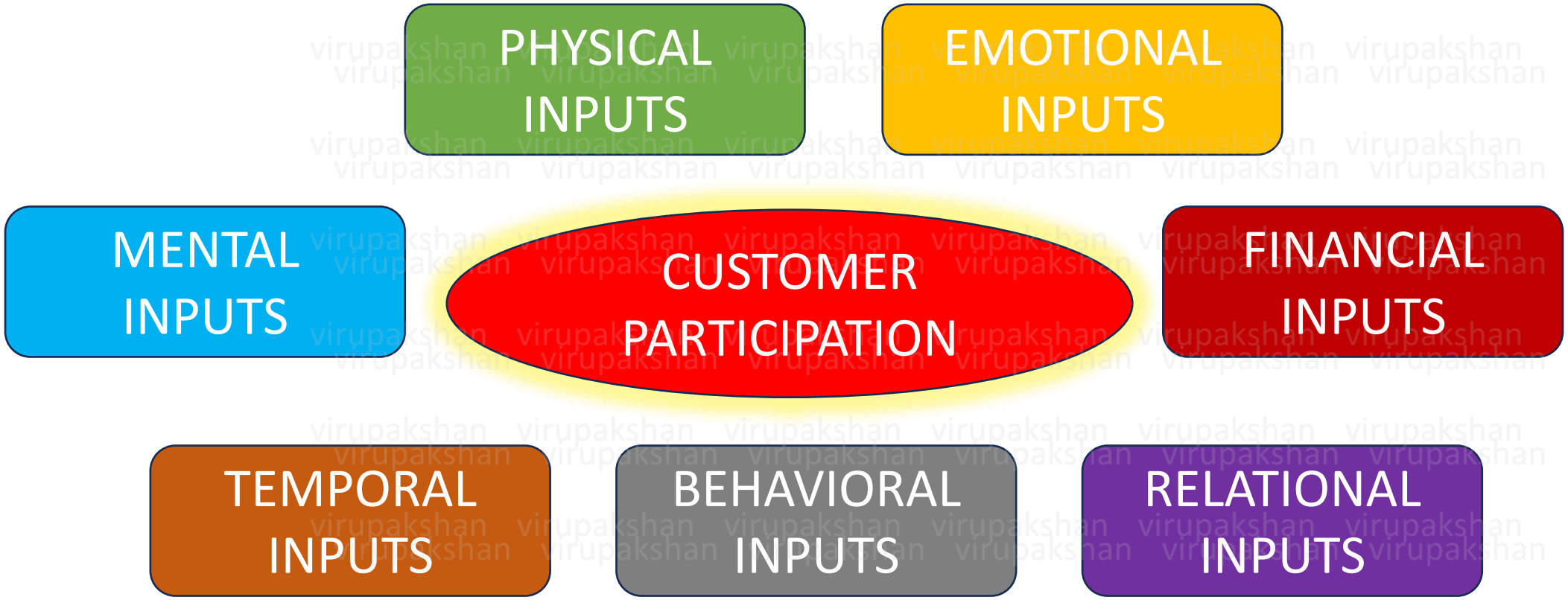
HETEROGENEITY



OWNERSHIP

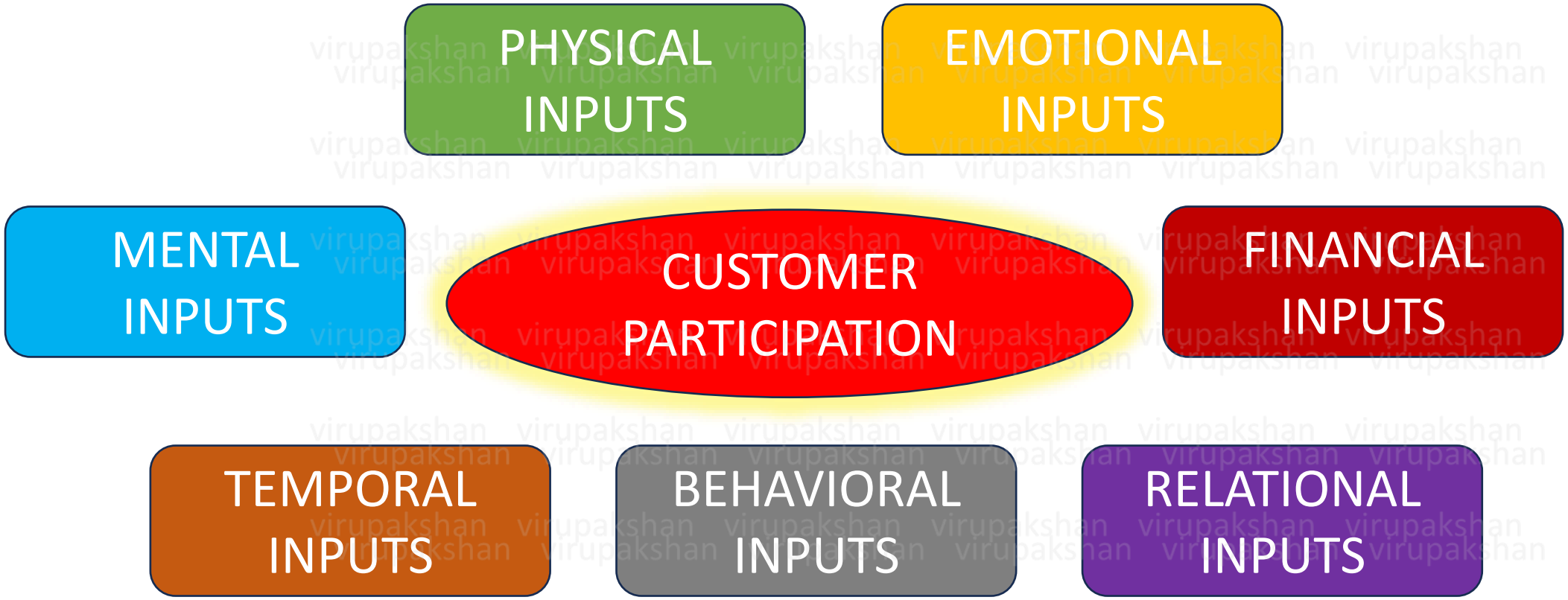
1.1.1 COMPLEXITY — CUSTOMER PARTICIPATION

Customer Participation is defined as "the degree to which the customer is involved in producing and delivering the service"



1.1.1B COMPLEXITY — EXAMPLE

Customer is building a "Dream House"



1.1.2 SIMULTANEITY AND ITS CONSEQUENCES

The Service Provider and Consumer both have to be present **at the same time** when a service is enacted.

Barber
Produces the Service

Customer
Consumes the Service

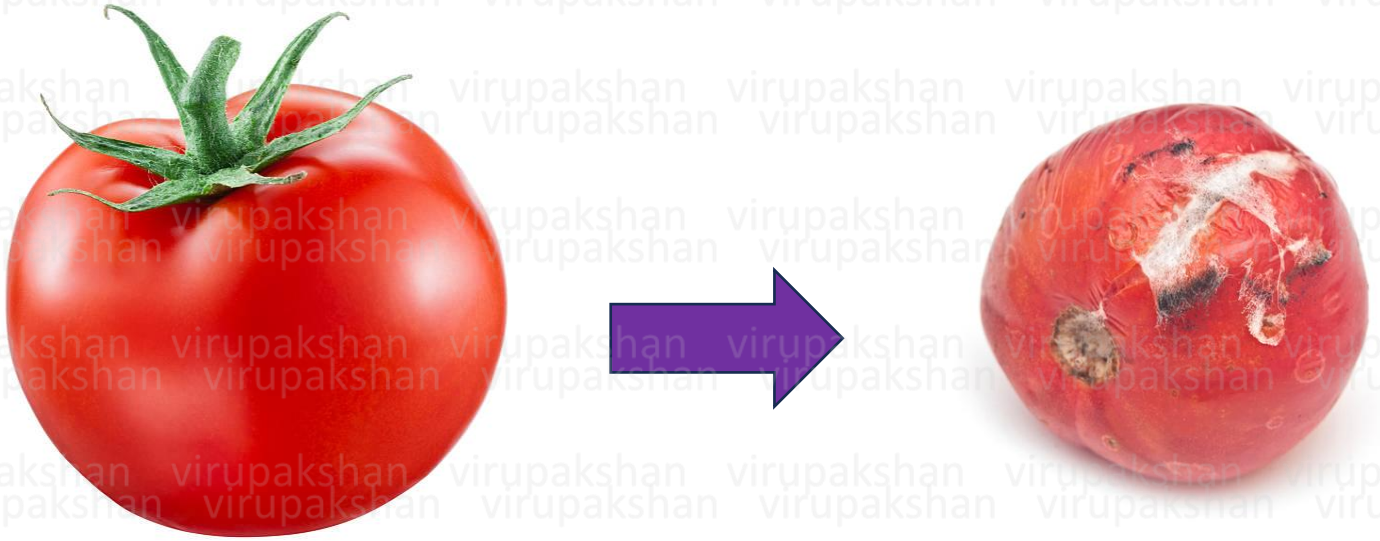
…at the same time!

- This means that the service provided **cannot be separated** from its source or supplier through consumption.
- The service is purchased, but the service buyer **cannot go with the service** due to its inseparable concept.

1.1.3 PERISHABILITY

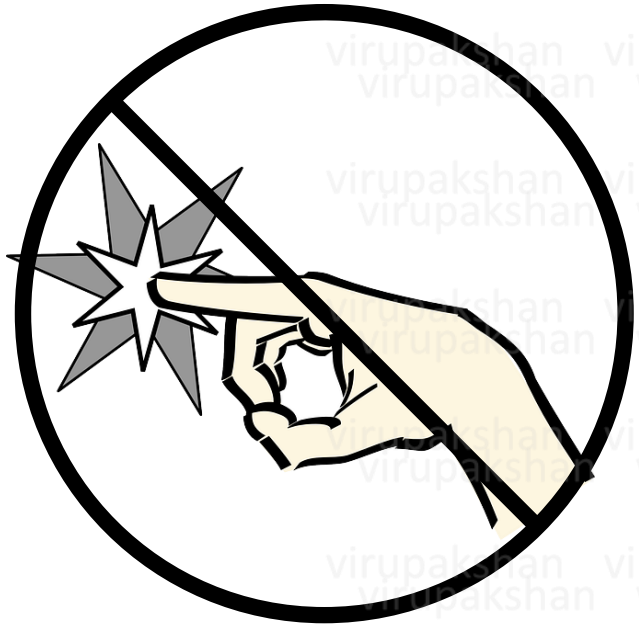
A **perishable service** simply means that it's **short-lived.**

Such a service is consumed as soon as it is produced.



1.1.4 INTANGIBILITY

Services are intangible



SERVICES CANNOT BE TOUCHED

SERVICES CAN ONLY BE FELT

1.1.5 HETEROGENEITY

Services are not always delivered the same way

Even if you go to the same restaurant, you may not get the same Dosai experience every time.

1.1.6 NON TRANSFERENCE OF OWNERSHIP

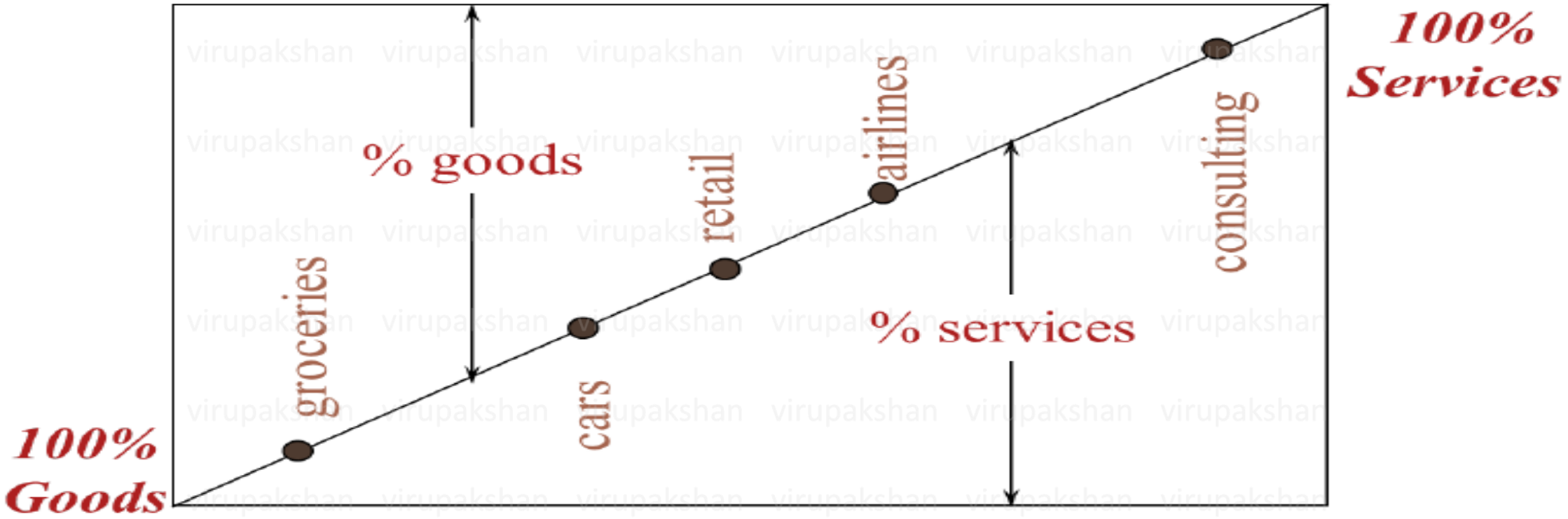
It refers to the fact that **you cannot own and store a service** like you can a product.

Service is **consumed at the point of sale** and does not result ownership.

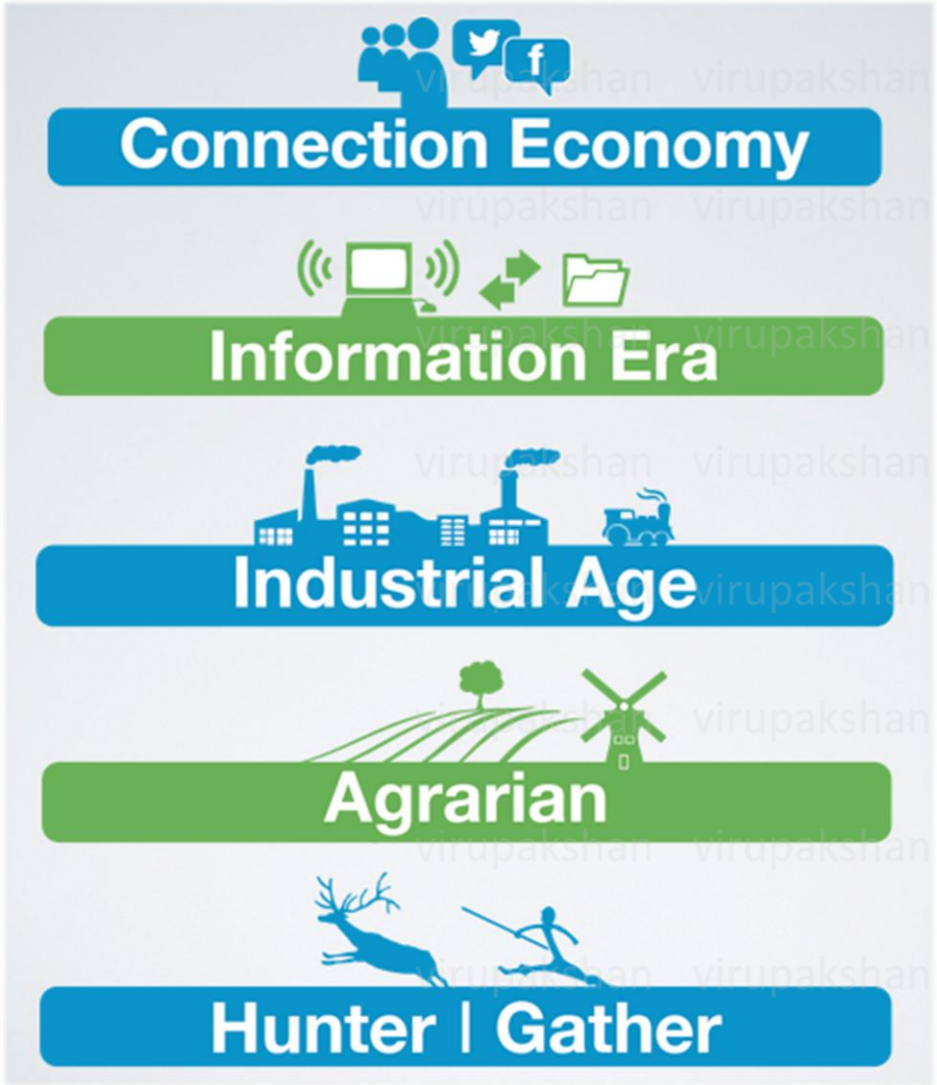
1.1.7 DIFFERENCES BETWEEN GOODS AND SERVICES

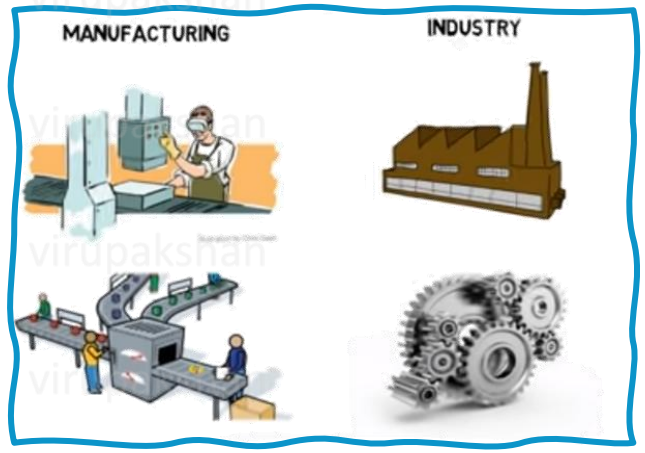
BASIS	SERVICES	GOODS
Nature	An activity or prcress. **e.g. Plumber repairing the sink.**	A physical object. **e.g.. Soap, Pen, etc**
Type	Heterogeneous	Homogeneous
Intangibility	Intangible **e.g. Attending a lecture**	Tangible **e.g. Books**
Inconsistency	Different service providers give different service experience **e.g. Spa treatment**	Different product companies give similar product **e.g. Paracetamol tablet**
Inseparability	Simultaneous production and consumption. **e.g. Haircut in a Salon**	Separation of production and consumption. **e.g. Buying soap from shop produced in a factory**
Inventory	Cannot be kept in stock. **e.g. Attending a LIVE music concert**	Can be kept in stock. **e.g. Grocery items in a shop.**
Involvement	Customer involvement during service delivery. **e.g. Custom dress from a tailor**	Involvement at the time of product delivery not possible. **e.g. Innerwear from textile shop**

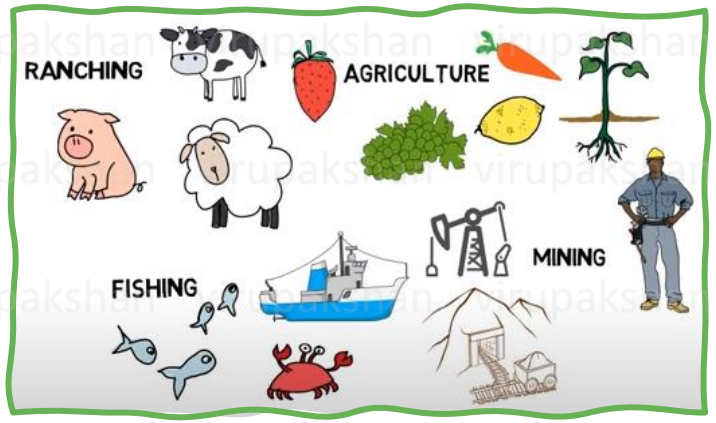
1.1.8 PRODUCTS ARE “BUNDLES” OF GOODS AND SERVICES



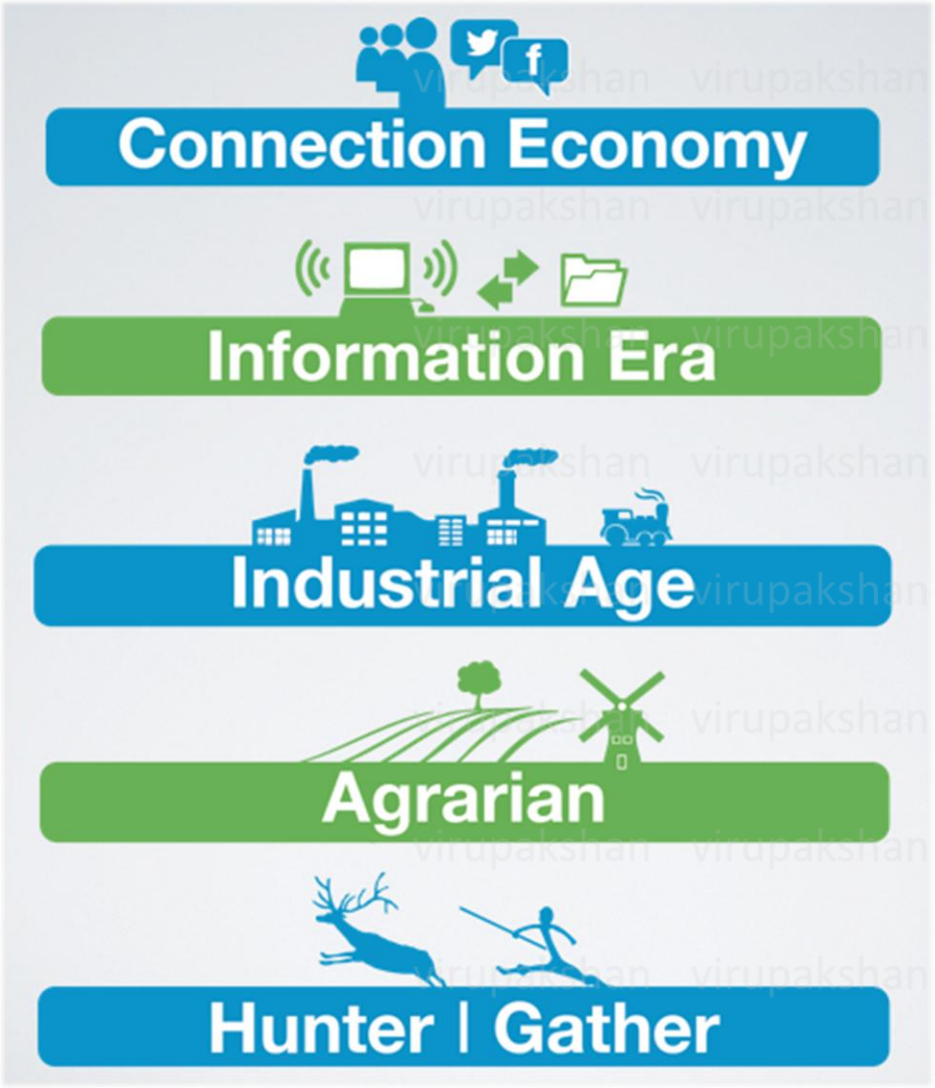
1.2.0 EVOLUTION OF ECONOMY





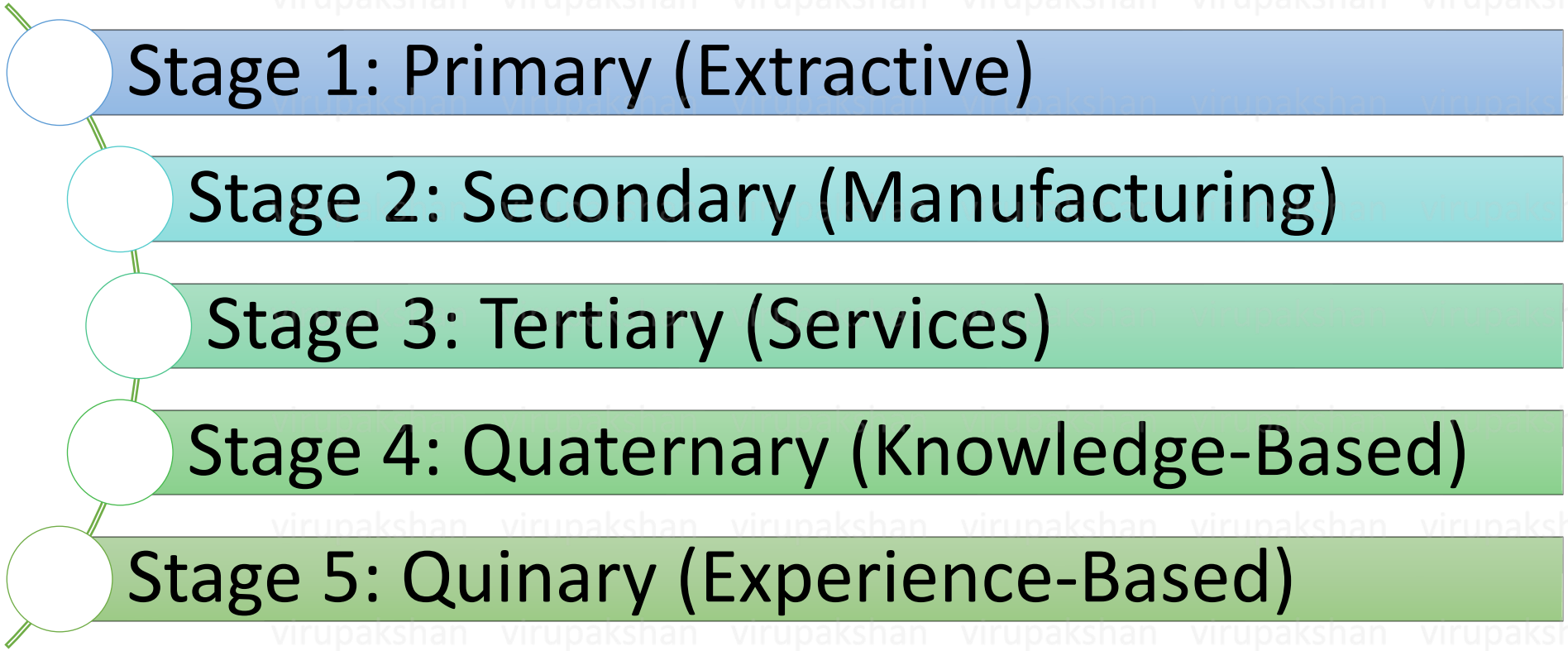


1.2.1 Evolution of Economy - Sectors



- Stage 1: Primary (Extractive)
- Stage 2: Secondary (Manufacturing)
- Stage 3: Tertiary (Services)
- Stage 4: Quaternary (Knowledge-Based)
- Stage 5: Quinary (Experience-Based)

1.2.2 Stages of Economic Development



1.2.3 Stages of Economic Development

Stage 1: Primary (Extractive)

Activities:

- Agriculture
- Fishing
- Mining

Example:

- Traditional farming villages

Stage 2: Secondary (Manufacturing)

Activities:

- Production
- Construction
- Factories

Example:

- Automobile manufacturing

Stage 3: Tertiary (Services)

Activities:

- Banking
- Transportation
- Retailing

Example:

- Banking sector

Stage 4: Quaternary (Knowledge-Based)

Activities:

- Research
- IT Services
- Education

Example:

- Software companies

Stage 5: Quinary (Experience-Based)

Activities:

- Consulting
- Strategic decision-making
- High-level management

Example:

- Management consulting firms

1.2.4 Stages of Economic Development

Comparison

Stage	Focus
Primary	Extraction
Secondary	Manufacturing
Tertiary	Services
Quaternary	Knowledge
Quinary	Experience & Innovation

1.3.1 ROLE OF SERVICES IN ECONOMY

Types of Services

Infrastructure Services

- Banking
- Communication
- Transportation
- Utilities

Business Services

- Advertising
- Consulting
- Auditing

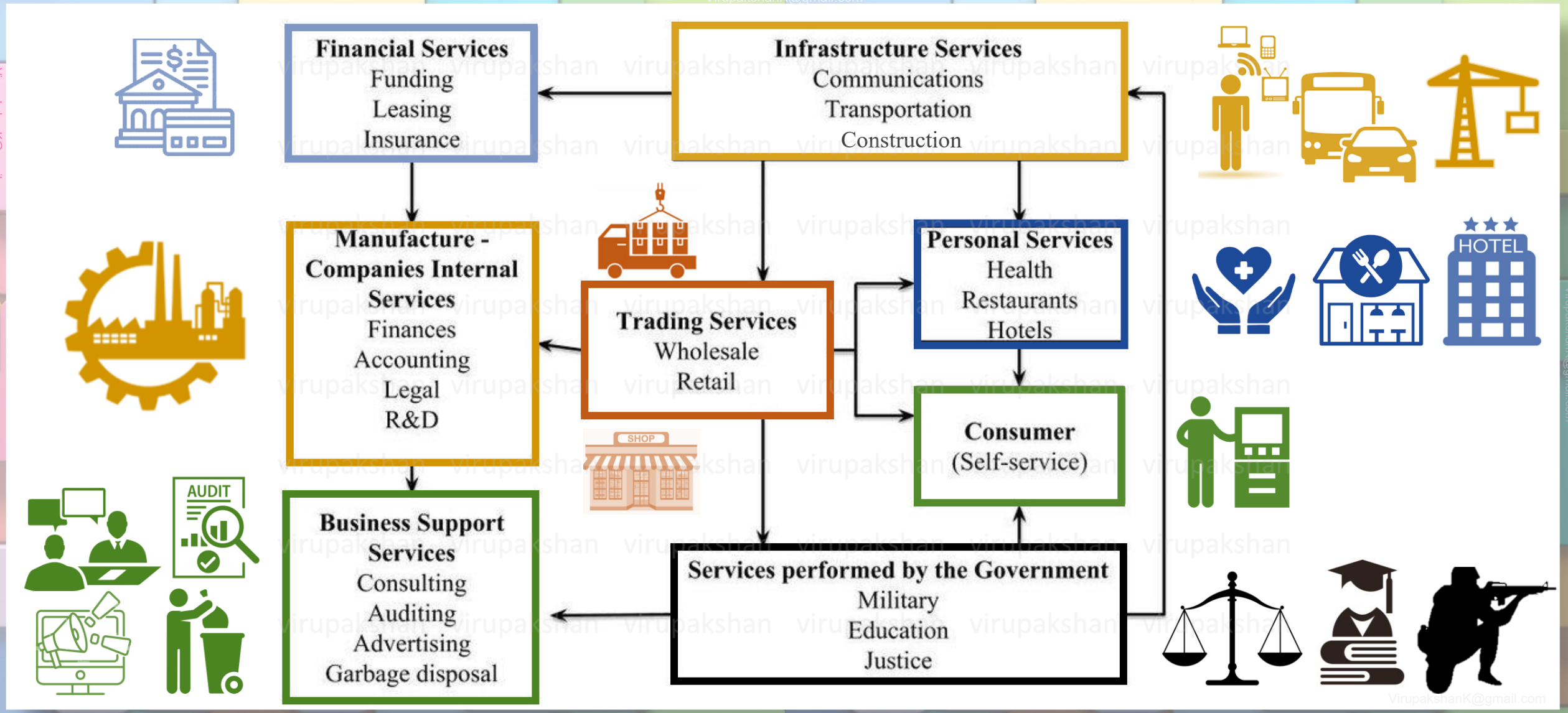
Government Services

- Education
- Healthcare
- Police
- Judiciary

Personal Services

- Hotels
- Restaurants
- Salons

1.3.2 ROLE OF SERVICES IN ECONOMY



Q 5) Which of these "Business Support Services" does your institute use?

1. Admin

2. Accountant

3. HR

4. House Keeping

5. Security

5. Marketing

A. ONLY "Admin"

C. ONLY "Accountant"

B. ONLY "Marketing"

D. ALL OF THEM

1.4.1 EXPERIENCE ECONOMY

An economy in which many goods or services are sold by emphasizing **the effect they can have** on people's lives.

Examples:

Disney World and **MGM Dizze World**, where the experience of being in a magical or thrilling environment is the main product

1.4.2 EXPERIENCE ECONOMY - SKYDIVING TRIP

We could break down the bill as:

- The pilot to transport you to a specific location and height.
- The instructor's lesson.
- All required gears.
- Transportation to and from the plane and landing zones.
- Insurance for the event.

1.5 Service Science

Definition

Service Science studies service systems involving people, technology, organizations, and information working together to create value.

Components

People

Employees and customers

Technology

Computers, AI, mobile apps

Processes

Service workflows

Information

Data and knowledge

Example

Online Banking

People + Software + Network + Rules

1.6.1 SERVICE DOMINANT LOGIC (S-D Logic)

It is a **framework** with its basis on the belief that **products or services** only become **valuable** when **consumers use them**.

- Products don't offer inherent value through ownership, but rather through the service they provide.
- The purpose of goods is to deliver service and it's the service that provides value to the customer.

1.6.2a SERVICE DOMINANT LOGIC - EXAMPLE

When a customer purchases a **toothbrush**, the **value** of the toothbrush comes **from the service** it provides when the **customer uses it**.

The value **is not within** the toothbrush itself.

1.6.2b SERVICE DOMINANT LOGIC - EXAMPLE

Traditional View

Company creates value.

Service-Dominant View

Company and customer jointly create value

Example : Uber / OLA

Provider:

- Platform

Customer:

- Booking, rating, participation

Value is co-created.

Principles

1. Service is basis of exchange.
2. Customer participates.
3. Value is co-created.
4. Relationships matter.

1.6.3 S-D LOGIC – AXIOMS & FOUNDATIONAL PREMISES

	S-D logic Axioms and Foundational Premises (FP)
Axiom 1/FP1	**Service is the fundamental basis of exchange.**
FP2	Indirect exchange masks the fundamental basis of exchange.
FP3	Goods are a distribution mechanism for service provision.
FP4	Operant resources are the fundamental source of strategic benefit.
FP5	All economies are service economies.
Axiom 2/FP6	**Value is cocreated by multiple actors, always including the beneficiary.**
FP7	Actors cannot deliver value but can participate in the creation and offering of value propositions.
FP8	A service-centered view is inherently customer oriented and relational.
Axiom 3/FP9	**All social and economic actors are resource integrators.**
Axiom 4/FP10	**Value is always uniquely and phenomenologically determined by the beneficiary.**
Axiom 5/FP11	**Value cocreation is coordinated through actor-generated institutions and institutional arrangements**

1.7 Service Systems

Definition

A service system consists of people, technology, organizations, and shared information interacting to create value.

Components

Customers

Receive service

Employees

Deliver service

Technology

Supports operations

Information

Coordinates activities

Example

Hospital System

- Doctors
- Nurses
- Patients
- Medical Records
- Equipment

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UNIT 01 **LECTURE 01**

Doubts?

THANK YOU!

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