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INTERMEDIATE LEVEL
PAPER 7A : ENTERPRISE INFORMATION SYSTEMS

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Financial and Accounting Systems

SYNOPSIS

- Integrated and non Integrated systems
- ERP and its modules
- Data Analytics and BI
- Business Reporting and XBRL
- Regulatory and Compliance Requirements

SYSTEM

- A set of detailed methods, procedures, routines
- To carry out specific activity/duty or solve a problem.
- Larger systems may comprise of few sub systems .
- Stops functioning when a element is removed or changed.

Contd..

It comprises of :

a)Input , output and feedback procedures.

b)Consistent steady state in spite of changing external environment.

c)Boundaries

PROCESS

- Sequence of events/flow of activities
- That processes input for desired output
- Performed by people or machines.
- Creates value for customers.
- Its coordinated and standardized.

Example : Taking customer order’s, ITR filing and bill generation

FINANCIAL AND ACCOUNTING SYSTEM

- Financial and Accounting Systems does not necessarily mean Software or Computerized Systems only.
- It is the job of any Financial and Accounting System to cater to needs of all the users simultaneously.
- Its most critical for capturing different transactions, processing them and store data related to various operations.

TYPES OF DATA

MASTER DATA

1)Relatively permanent data

2)Non transaction related

3)Entry done less frequently.

4)Generally not typed. Selected from available list.

NON MASTER DATA

1) Frequently changing data.

2)Transaction related data.

3)Entry done frequently.

4)Generally typed. And not selected from available list.

MCQ Time !

Q. Flobe Ltd maintains the personal details of its employees in the database. Which amongst the following constitutes personal non master data ?

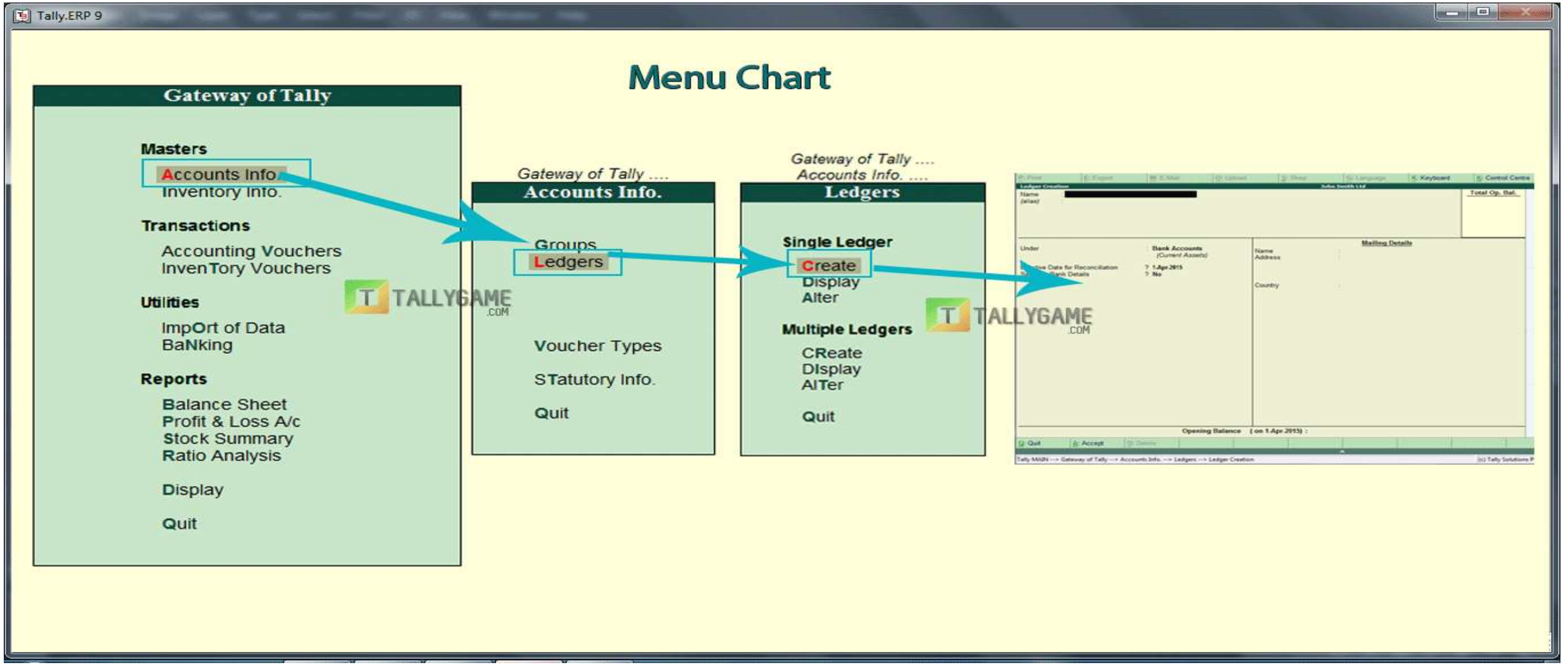
a) Blood group

b) Designation

c) Date of birth

d) Parental details

ILLUSTRATION



ILLUSTRATION

Master Data :

Debit Ledger Name - Timber Purchase

Credit Ledger Name - Rajesh Timber

Voucher type – Purchase

Non Master Data :

Voucher Number - 3

Supplier Invoice No - 5454

Transaction amount – Rs 10,000

Date of transaction - 2-Jun-2015

TYPES OF MASTER DATA

- Accounting Master Data
- Payroll Master Data
- Inventory Master Data
- Statutory Master Data

VOUCHER

- Voucher is a documentary evidence of a transaction.
- A **Voucher Number** or a **Document Number** is a unique identity of any voucher/document.
- Voucher number must be unique.
- Every voucher type shall have a separate numbering series.
- All vouchers must be numbered serially and recorded in chronological order.
- In accounting, every transaction, before it is recorded in the accounting system, must be supported by a documentary proof/voucher.

VOUCHER TYPES

ACCOUNTING

- PAYMENT
- RECEIPT
- DEBIT NOTE
- CREDIT NOTE
- CONTRA
- PURCHASE
- SALES
- CONTRA
- MEMORANDUM
- JOURNAL

INVENTORY

- PURCHASE ORDER
- SALES ORDER
- STOCK JOURNAL
- PHYSICAL STOCK
- DELIVERY NOTE
- RECEIPT NOTE

PAYROLL

- ATTENDANCE
- PAYROLL

MCQ Time !

Q. The accountant of the firm records any kind of cash transactions carried on by the firm with the bank, including fund transfer between banks under the voucher type ?

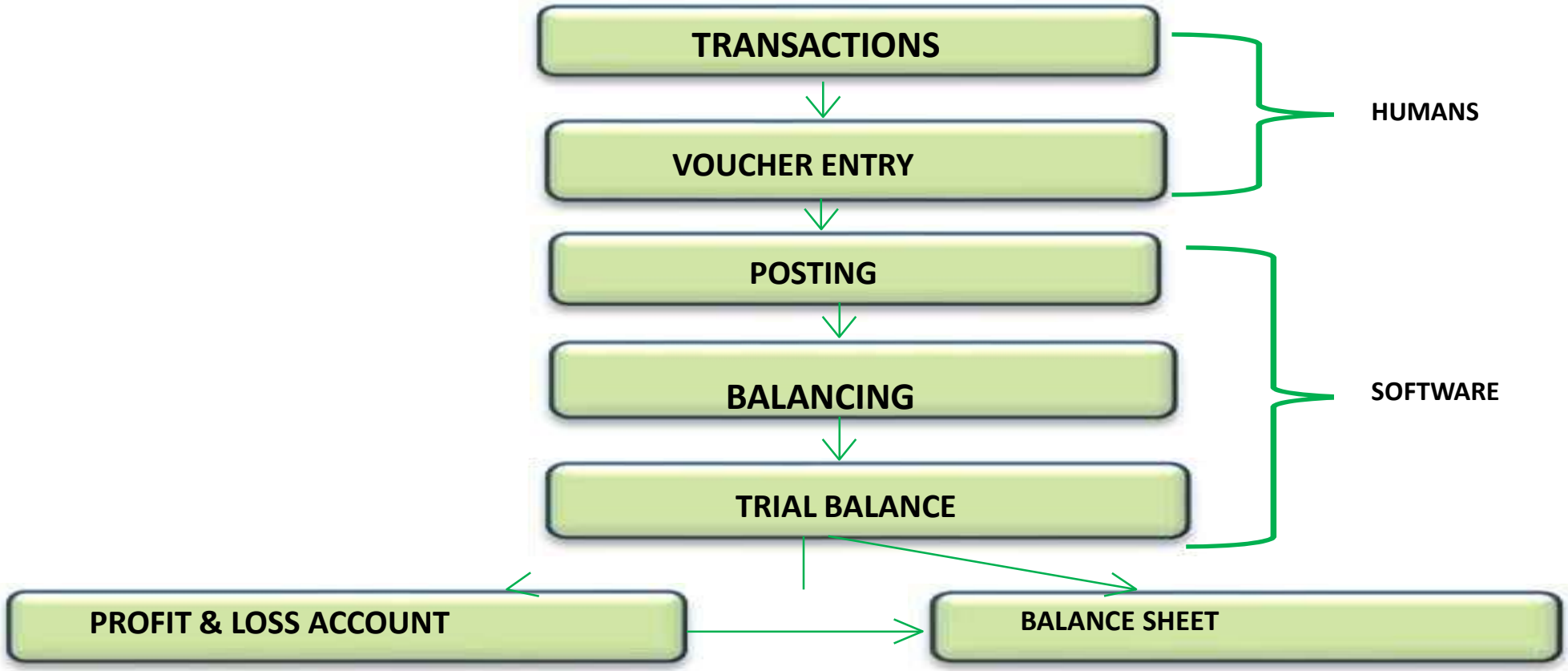
a) Payment

b) Memorandum

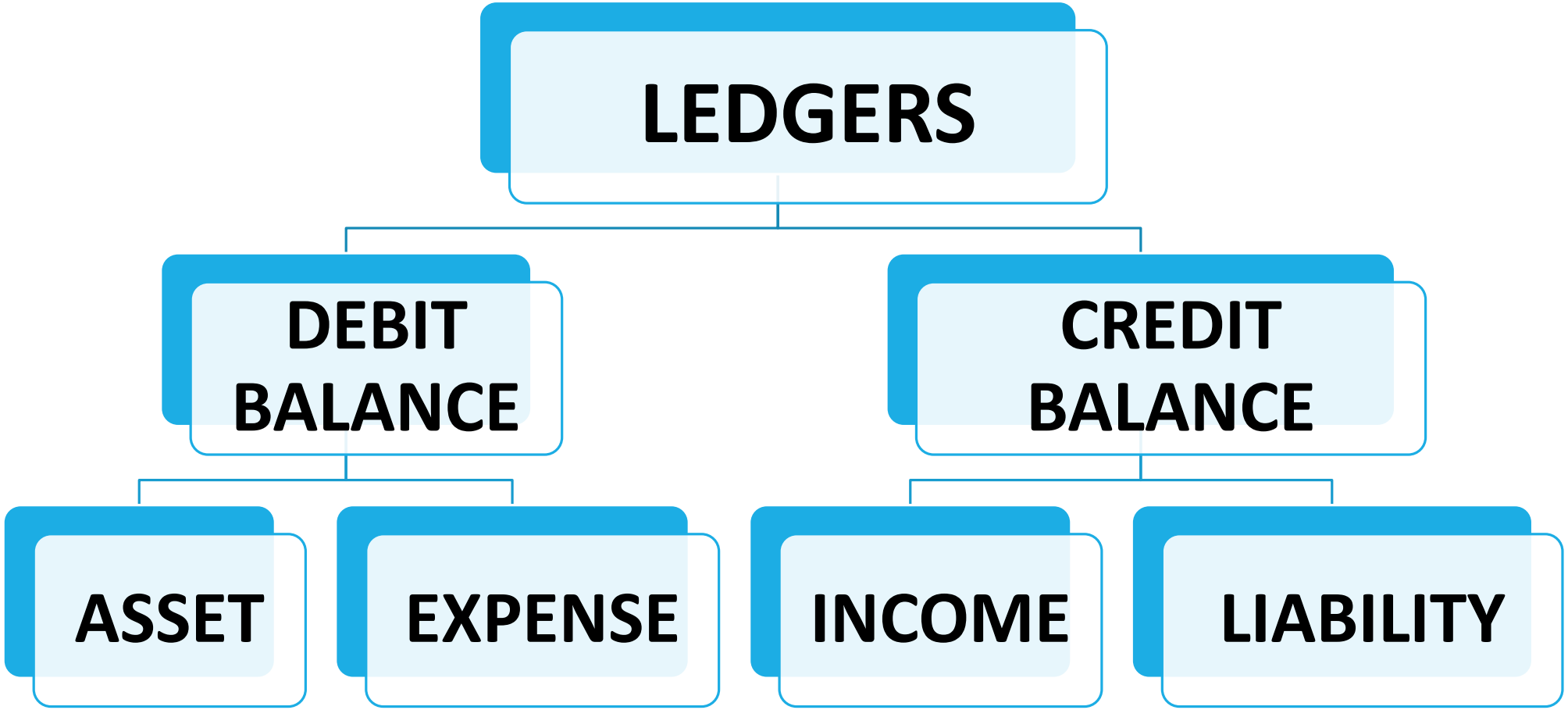
c) Contra

d) Journal

ACCOUNTING FLOW



TYPES OF LEDGERS



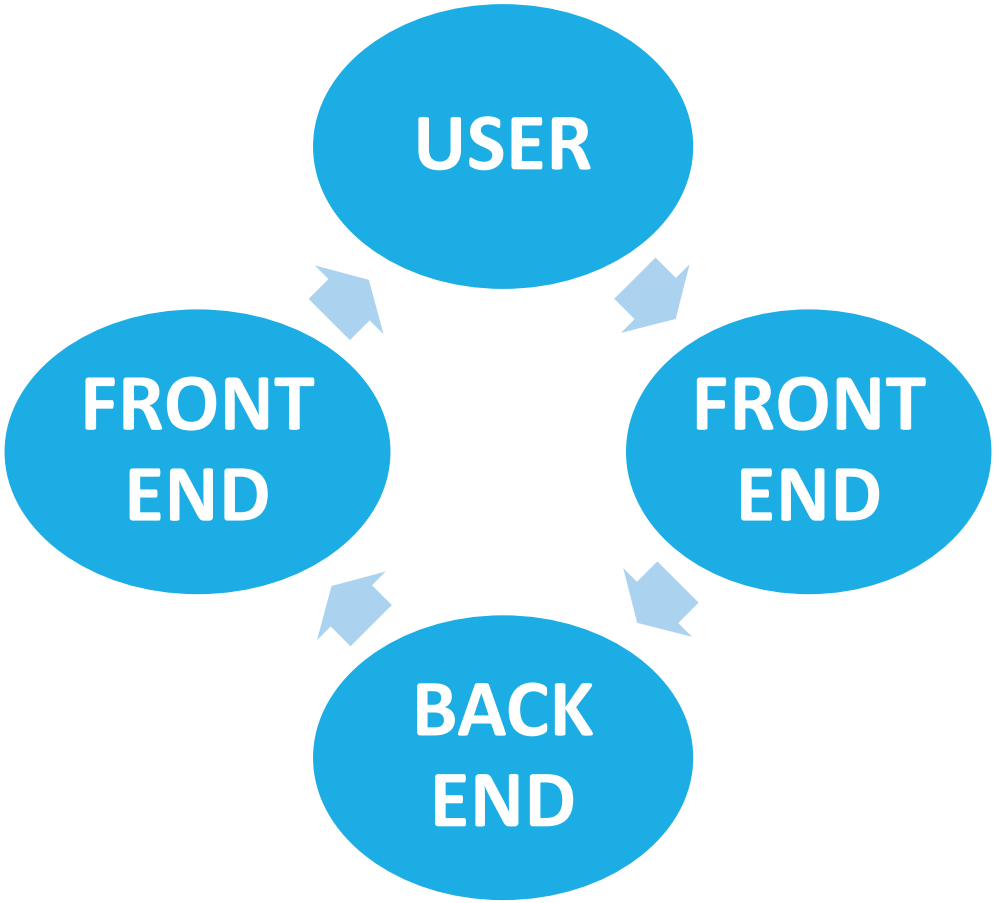
PROFIT AND LOSS

- INCOME
- EXPENSE

BALANCE SHEET

- ASSET
- LIABILITY

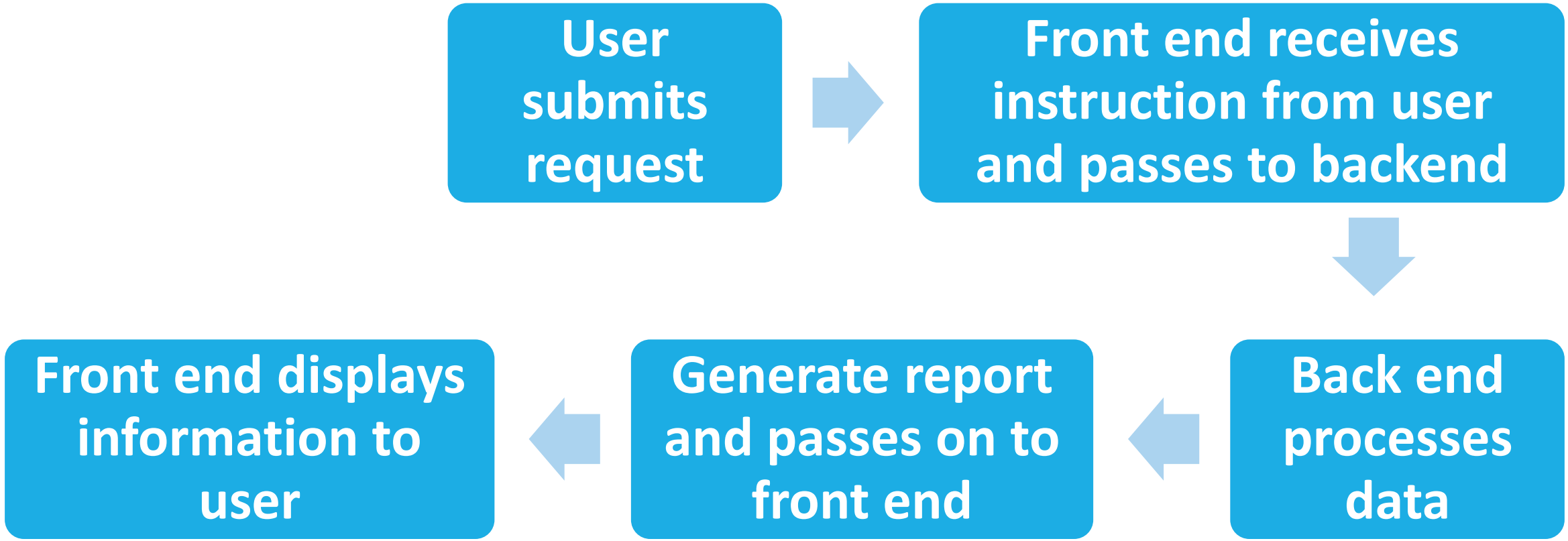
WORKING OF A SOFTWARE



Front End – Part of software that interacts with the user.

Backend – No direct interaction with user .

However interacts with the front end to provide value to user.



ADVANTAGES

- Domain Expertise
- Presentation
- Language
- User Experience
- Speed

APPLICATION SOFTWARE

- Utilized for specific application.
- Receives input from user, interprets the instruction, perform logical functions and achieves desired output for user
- Follows three tier architecture
- Examples are SAP, Oracle Financials

THREE TIER ARCHITECHTURE

- Receives input from the user.
- Performs validations.

APPLICATION LAYER

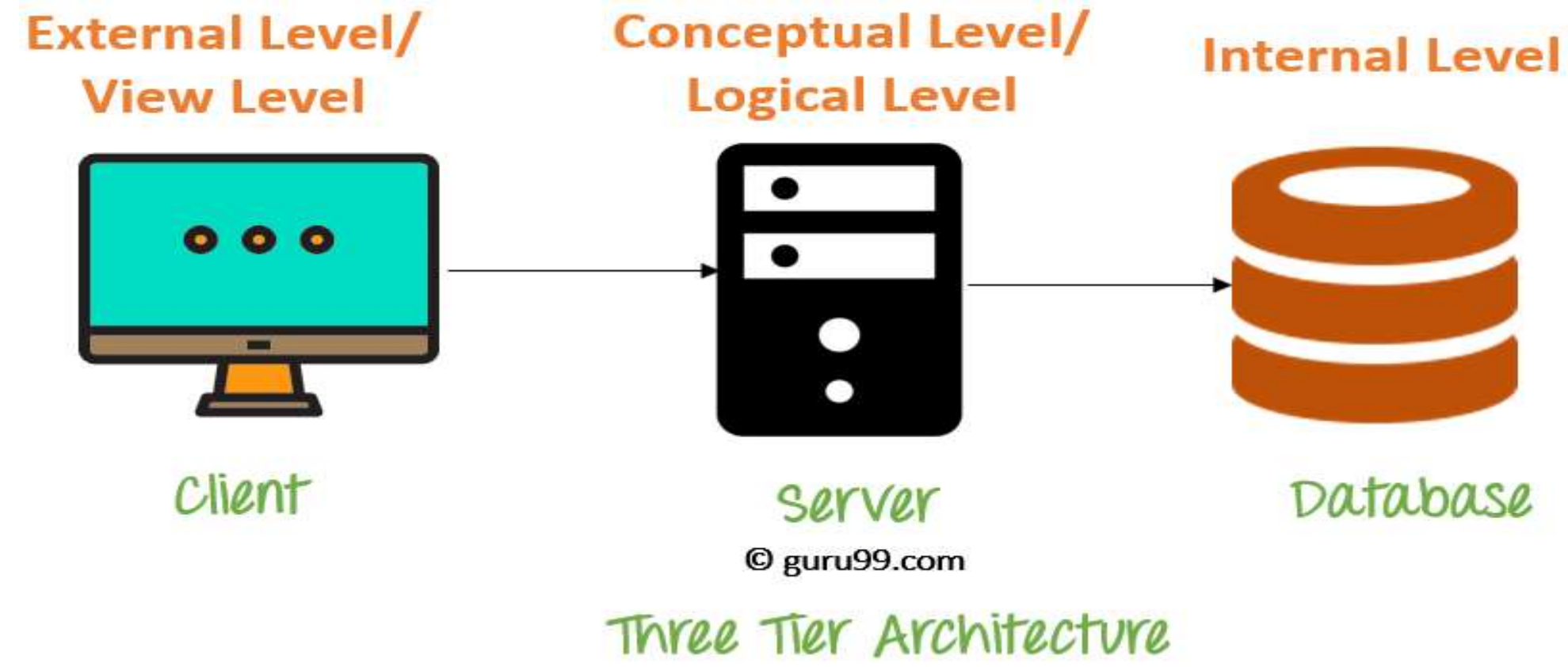
- Receives instructions.
- Processes the instructions using data stored in database.

OPERATING SYSTEM LAYER

- Stores the processed data.

DATABASE LAYER

ILLUSTRATION



USING A SOFTWARE

INSTALLED APPLICATION

- **Installed on hard disk of user's computer.**
- **Access not dependant on the internet.**
- **More secure.**
- **Requires constant updates**

WEB APPLICATION

- **Installed on web server.**
- **Accessed using browser and internet connection.**
- **Accessible from anywhere and cost efficient.**
- **No worrying about the system requirements.**

FEATURES	INSTALLED	CLOUD BASED
INSTALLATION	Manual Installation. Hence time consuming	Installation not required
MAINTANENCE	Done manually . Lot of effort involved.	Responsibility of service provider
ACCESSIBILITY	Limited	Unlimited. 24*7 Usage
MOBILE APPLICATION	Difficult	Easy . Future oriented.

DATA STORAGE	Stored in the premises of user	Stored in the web server
DATA SECURITY	Highly secure. User has full control over the data by appropriate access controls.	Depends on terms of SLA
PERFORMANCE	High performance as data is picked from local server	Performance depends on internet speed.
FLEXIBILTY	Better flexibility but increased CAPEX	Better flexibility with CAPEX and OPEX and increased scalability.

MCQ Time !

Q. Vistro Holdings Ltd has recently moved to a cloud based platform .Which among these could be stated as a disadvantage of cloud applications over installed applications?

a) Installation

b) Storage

c) Security

d) Mobility

NON INTEGRATED SYSTEMS

- System of maintaining data in decentralized way.
- Each department maintains their own data.
- Each department though they interact they store their data independently.
- No common pool to share data.
- This results in two major problems - Communication Gaps and Mismatched Data.

DISADVANTAGES

- Risk of duplication of data
- Increased time and effort.
- Lesser customer satisfaction.
- Higher costs
- Communication gap
- Data Mismatch

What is ERP ?

- ERP - Enterprise Resource Planning.
- Coordinates all resources , information , activities within an enterprise to complete a business process.
- Range of functions are integrated to one unified database.

It consists of :

a)One Common database

b)Modular software Design

c)Discrete data store

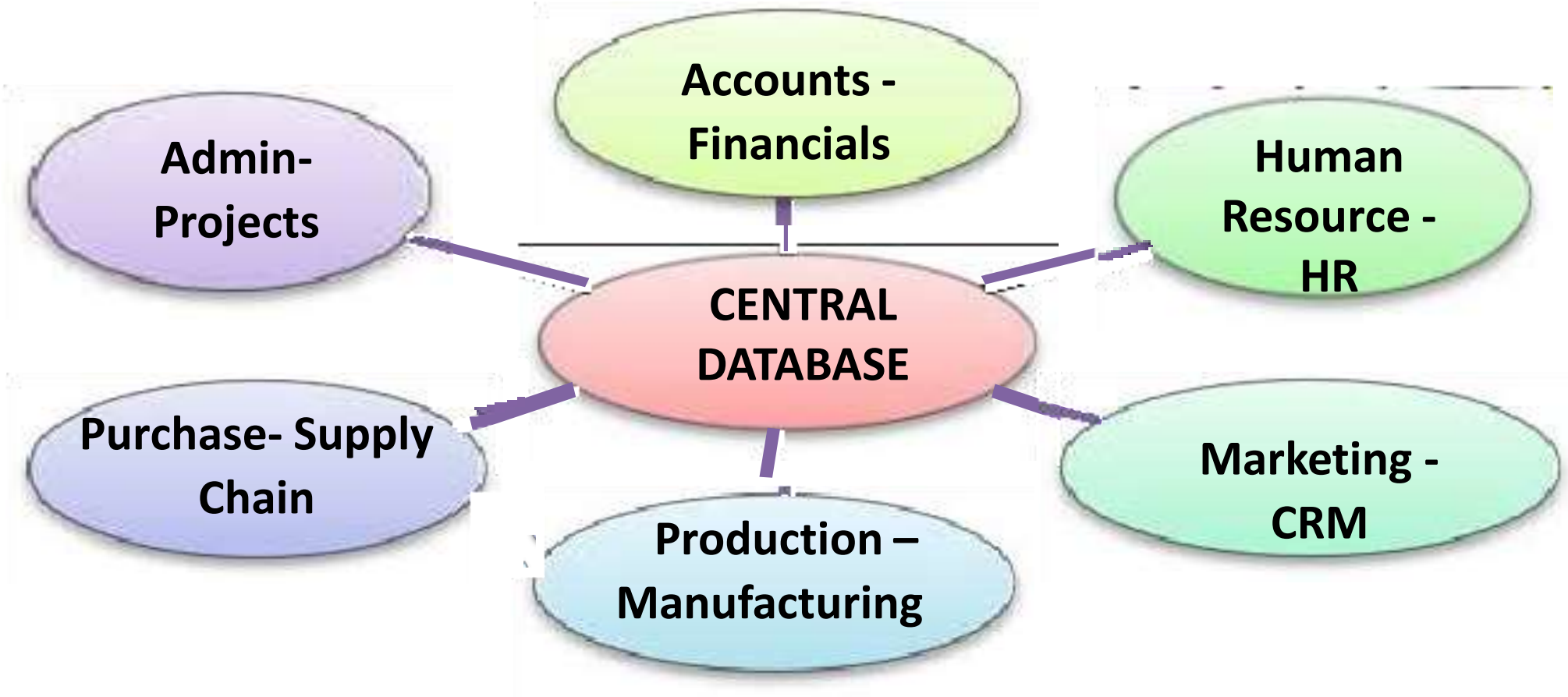
BENEFITS

- Information and integration
- Reduced lead time
- On time shipment
- Reduced cycle time
- Improved resource utilization

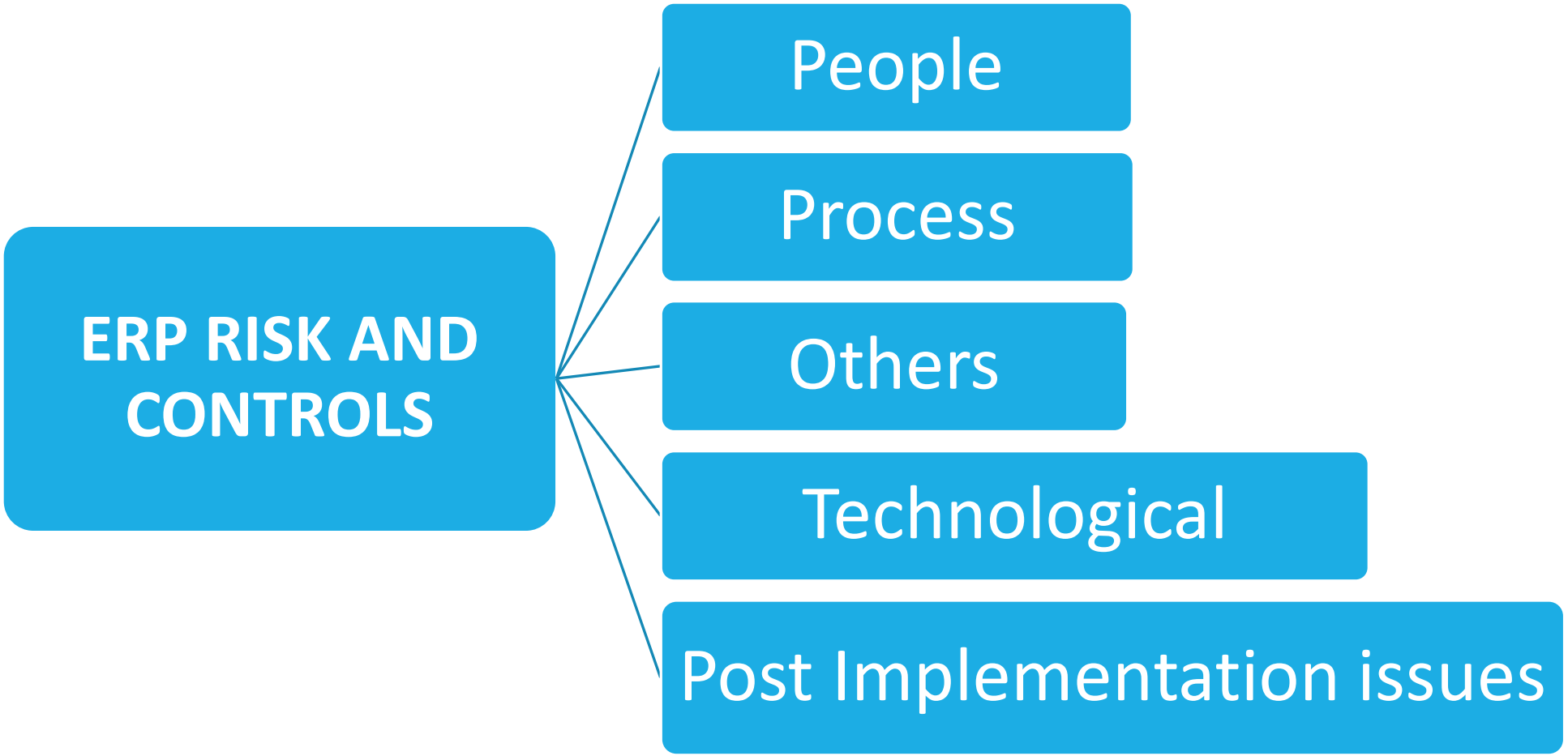
Contd..

- Improved supplier performance
- Better customer satisfaction
- Accuracy and decision making
- Better analysis and planning capabilities
- Use of latest technologies.
- Increased flexibility and quality

ERP FEATURES



ERP – RISKS AND CONTROLS



PEOPLE RELATED RISKS

- Change management
- Training
- Staff turnover
- Top management support
- Consultant

PROCESS RELATED RISKS

- Program management
- Business process reengineering

POST IMPLEMENTATION RISKS

- Lifelong commitment

RECAP

- System, Process
- Non Integrated systems , Integrated Systems
- Master and Non master data
- Ledger ,Types, Grouping
- Voucher, Types
- Working of a software and its layers
- Different types of Application Software
- What is an ERP and its Benefits
- Risks and Controls(Contd..)

OTHER RISKS

- Lengthy implementation time
- Insufficient Funding
- Data Safety
- Speed of Operation
- System Failure
- Data Access

TECHNOLOGICAL RELATED RISKS

- Software Functionality
- Technological Obsolescence
- Enhancement and Upgrades
- Application Portfolio Management

MCQ Time!

Q. Due to the enterprise wide changes brought about by adoption of an ERP system, many employees are facing difficulty in getting tuned to the new process. Which of the following does not come under people related risk in an ERP?

a) Change management

b) Enhancements and upgrades

c) Training

d) Staff turnover

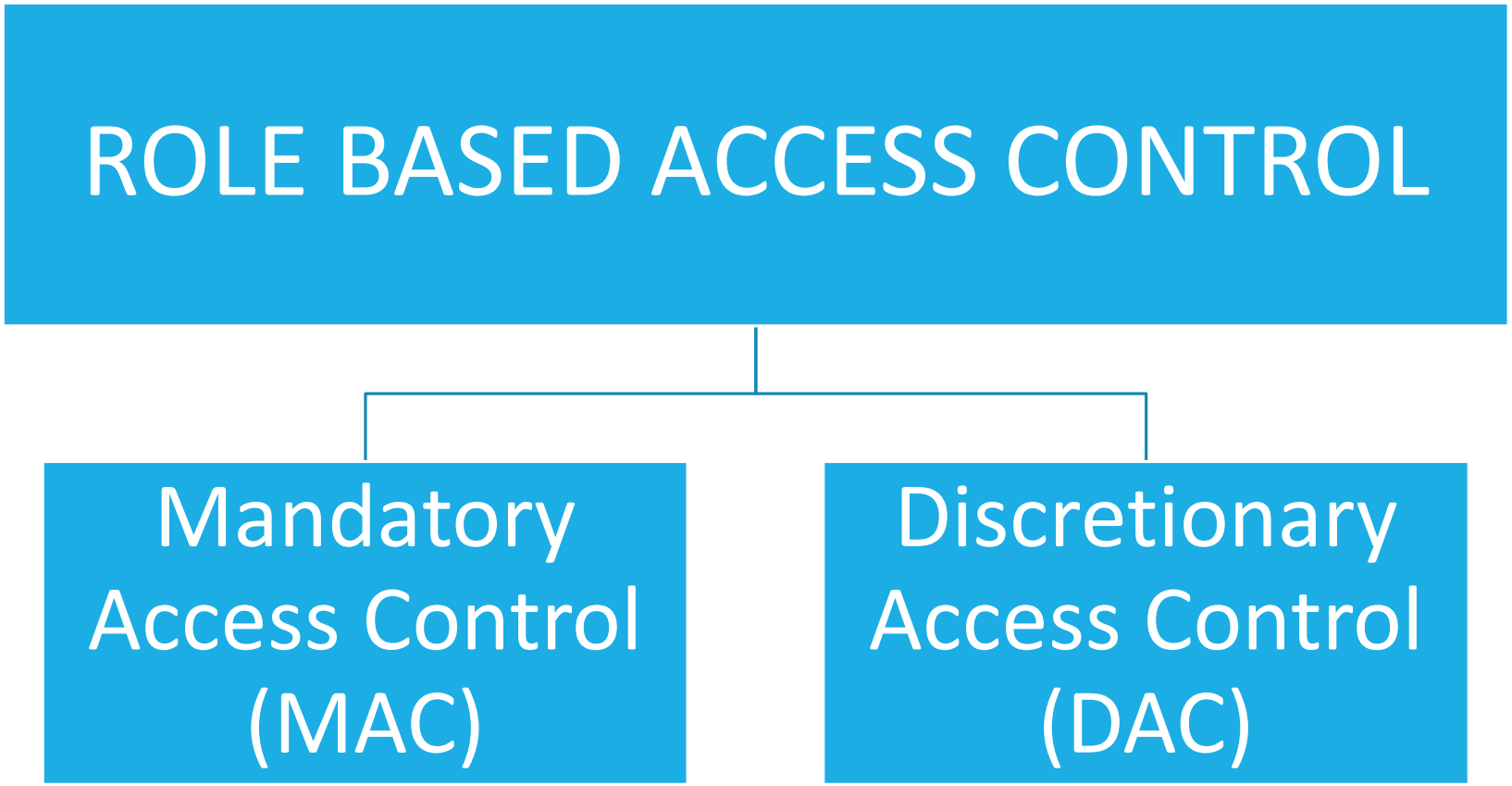
ROLE-BASED ACCESS CONTROL (RBAC)

- Approach to restricting system access to authorized users.
- It is used by most enterprises and can implement mandatory access control or discretionary access control.

Contd..

- The components of RBAC such as role-permissions, user-role and role-role relationships make it simple to perform user assignments

- RBAC can be used to facilitate administration of security – Need to know and need to do basis.



Mandatory Access Control (MAC)

- MAC criteria are defined by the system administrator, strictly enforced by the Operating System and are unable to be altered by end users.
- Only users or devices with the required information security clearance can access protected resources.
- A central authority regulates access rights based on multiple levels of security.
- Organizations with varying levels of data classification, like government and military institutions, typically use MAC to classify all end users.

Discretionary Access Control (DAC)

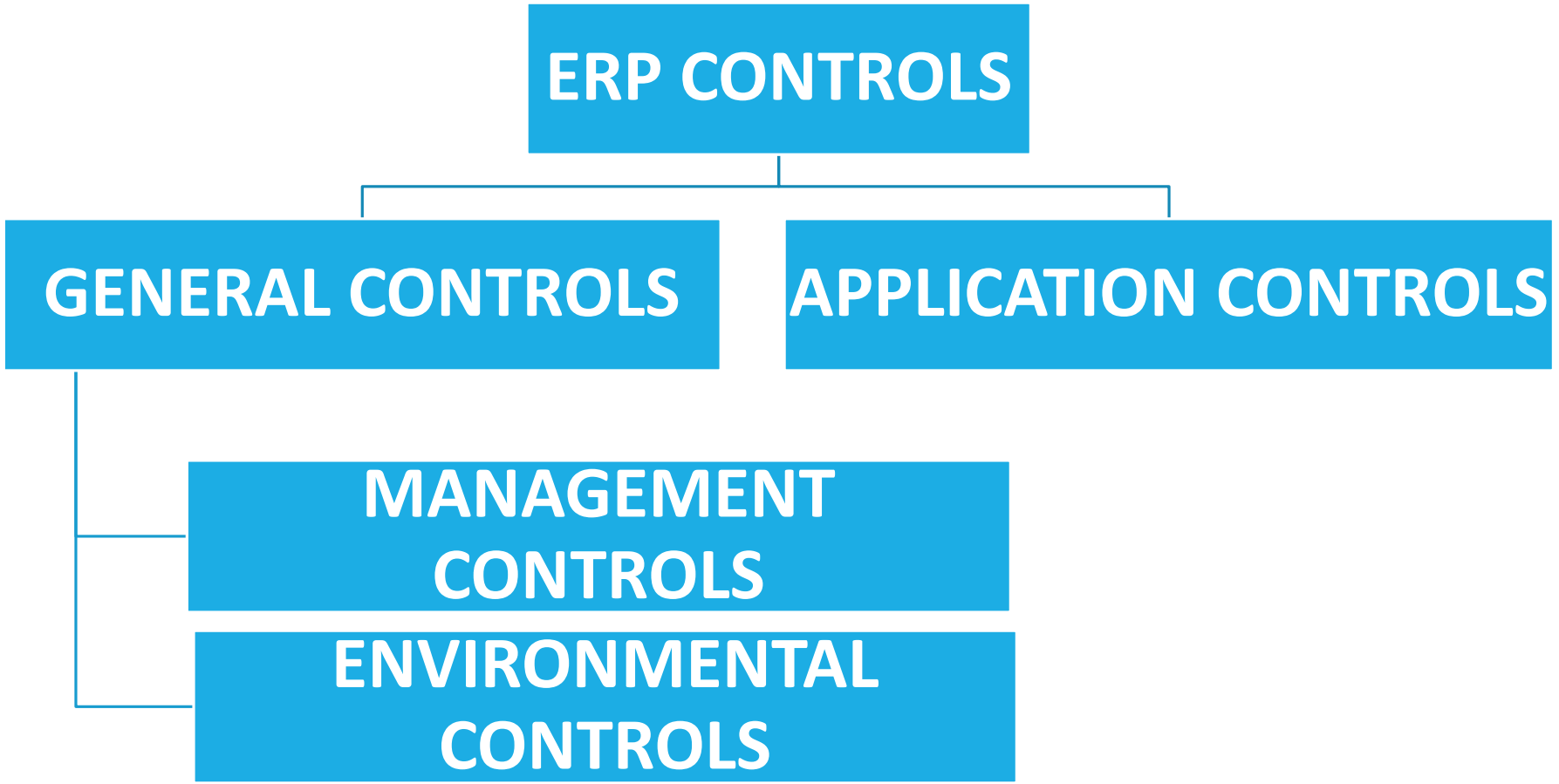
- DAC involves physical or digital measures and is less restrictive than other access control systems as it offers individuals complete control over the resources they own.
- The owner of a protected system or resource sets policies defining who can access it.

TYPES OF ACCESS

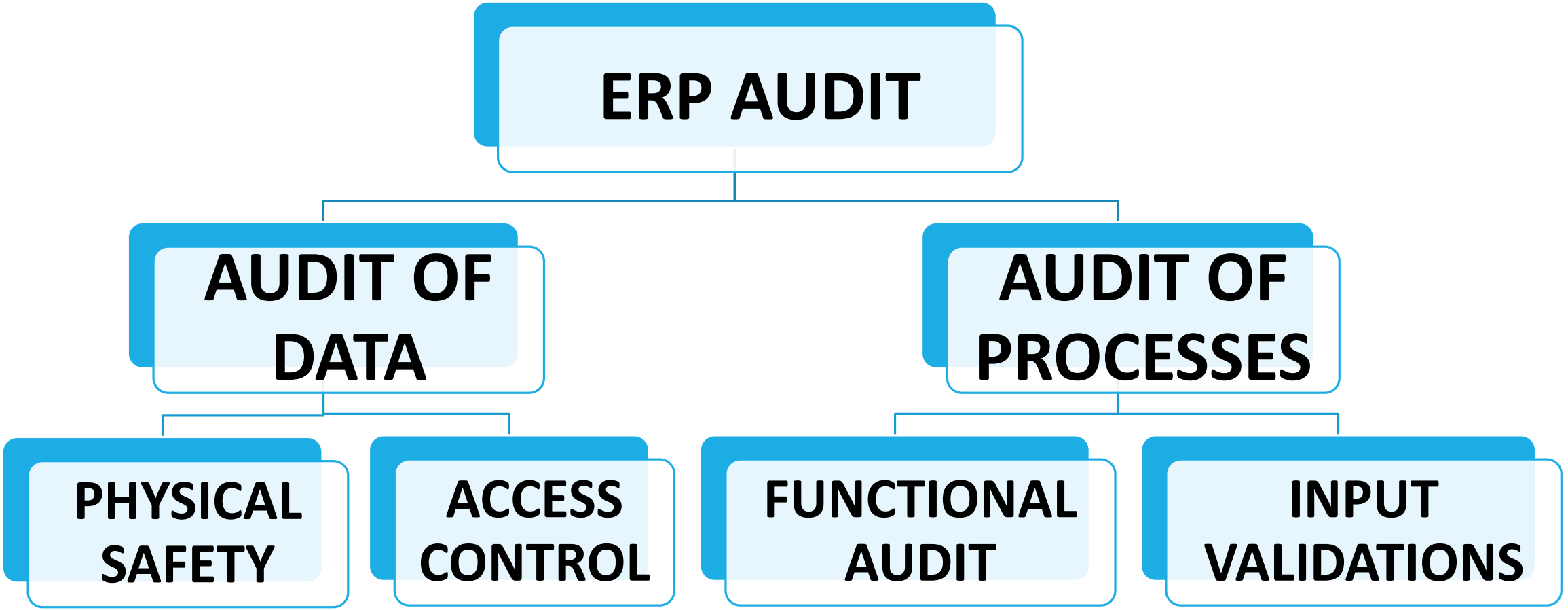
While assigning access to Master Data, Transaction Data and Reports to different users following options are possible.

- **Create** – Allows to create data;
- **Alter** – Allows to alter data;
- **View** – Allows only to view data; and
- **Print** – Allows to print data

ERP CONTROLS



AUDIT OF ERP SYSTEMS



MCQ Time !

Q. IS auditors of Seagate Ltd is in the course of audit of process of the ERP system implemented. Which among the following falls under the audit of processes?

a) Physical Safety

b) Input validation

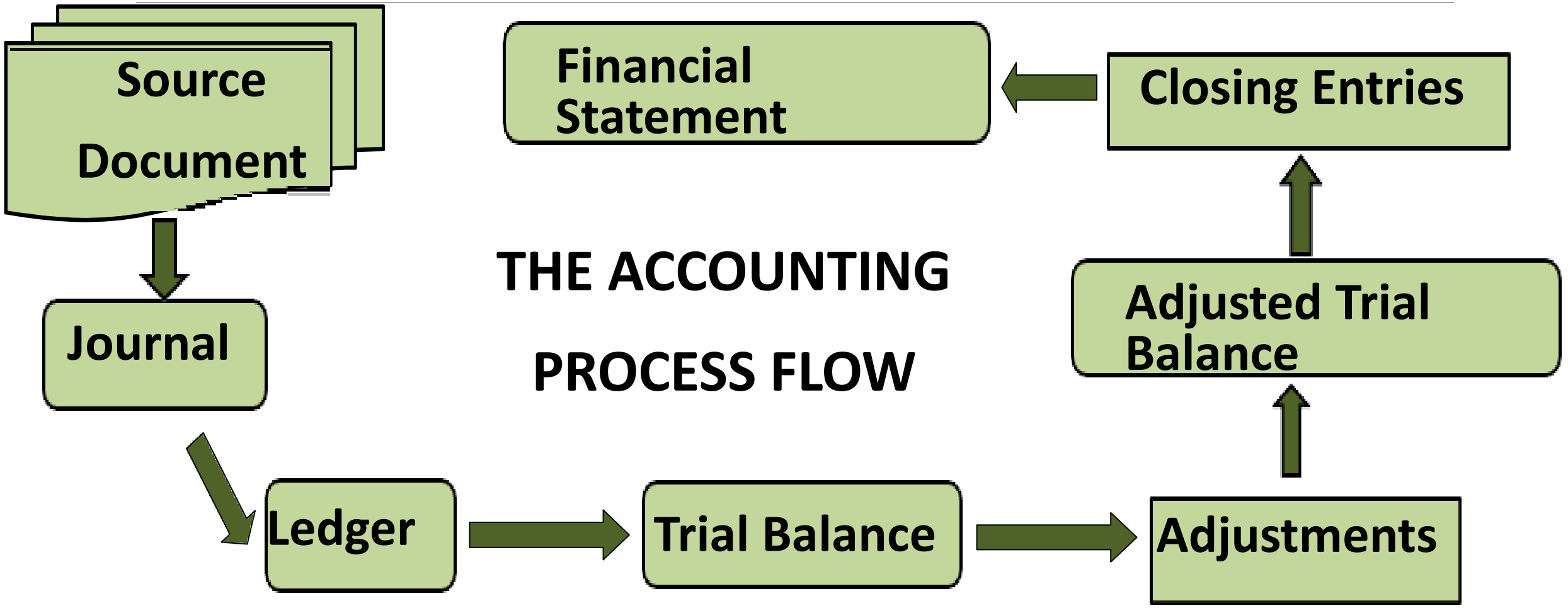
c) Access Control

d) All of the above

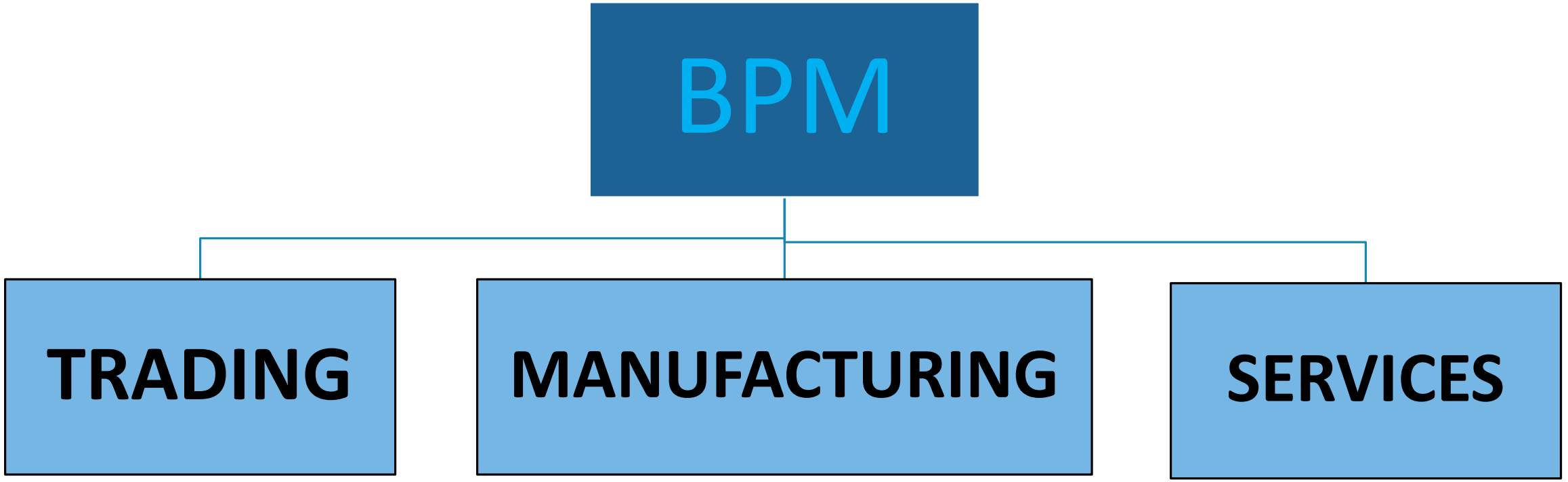
BUSINESS PROCESS

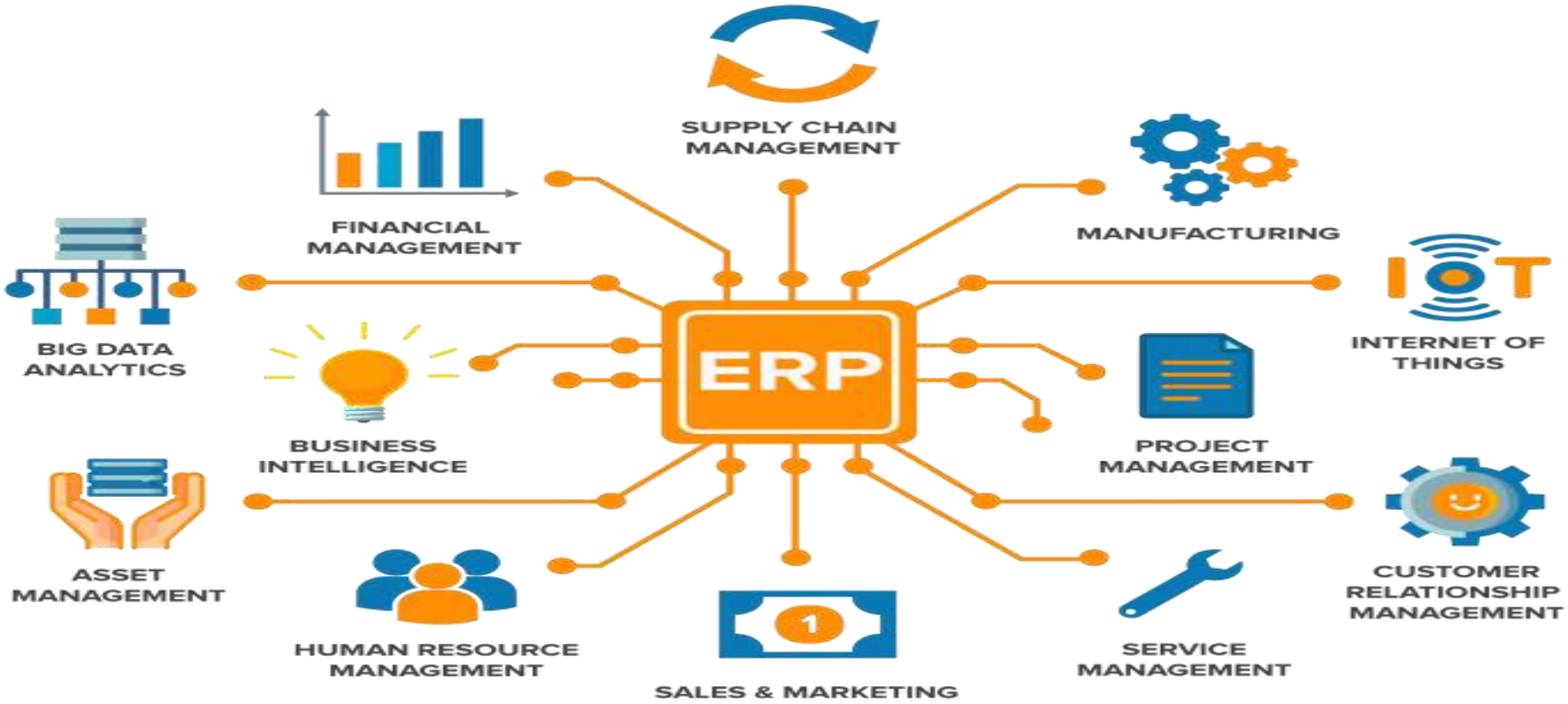
- Coordinated set of activities performed .
- In an organizational and technical environment
- To realize a business goal.

BUSINESS PROCESS FLOW



BUSINESS CATEGORIES OF BPM





FUNCTIONAL MODULES OF ERP

FINANCIAL ACCOUNTING MODULE (FI)

- Tracking of flow of financial data .
- Integrating all the information .
- Creation of Organizational Structure .
- Financial Accounting Global Settings (COA)
- General Ledger Accounting .

Contd..

- Tax Configuration & Creation and Maintenance .
- House bank setting up.
- Bills Payable ,bills receivables.
- Asset accounting.
- Integration with Sales and Distribution and Materials Management.

CONTROLLING MODULE(CO)

Facilitates coordinating, monitoring, and optimizing all the processes in an organization.

Two kinds of elements are managed in Controlling Module –**Cost Elements** and **Revenue Elements**

- Cost Element Accounting
- Cost Centre Accounting

Contd..

- Activity based Accounting
- Internal Orders
- Product Cost Controlling
- Profitability Analysis
- Profit Centre Accounting

SALES AND DISTRIBUTION MODULE

- Used by organizations to support sales and distribution activities .

KEY FEATURES

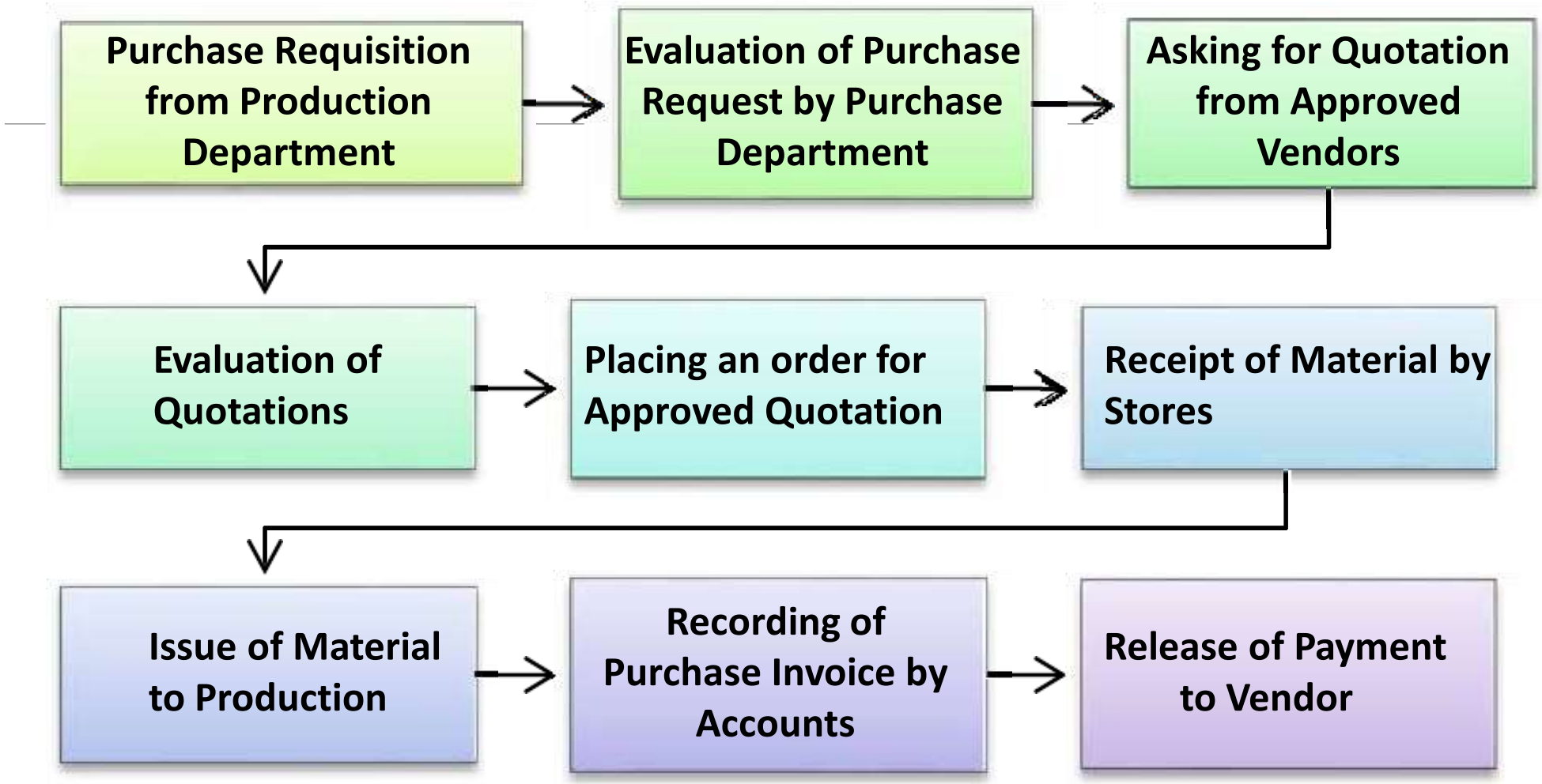
- Setting up Organizational Structure
- Assigning Organizational Units
- Pricing
- Setting up document types, billing types , tax related.
- Configuration and master data setting.

MATERIAL MANAGEMENT MODULE (MM)

- **Material Management (MM) Module** as the term suggests manages materials required, processed and produced in enterprises.
- Different types of procurement processes are managed with this system.

Contd..

- Some of the popular sub-components in MM module are vendor master data; consumption based planning, purchasing, inventory management, invoice verification and so on.
- Material Management also deals with movement of materials .



PLANT MAINTENANCE (PM)

- Handles the maintaining of equipment
- Enables efficient planning of production and generation schedules.
- Solution for all maintenance activities that are performed within a company.

OBJECTIVES

- To achieve minimum breakdown .
- To keep the plant in good working condition at the lowest .
- To ensure the availability of the machines, buildings and services required by other sections of the factory for the performance of their functions at optimum return on investment whether this investment be in material, machinery or personnel.

Contd..

- Usage at their optimum (profit making) capacity without any interruption or hindrance.
- It supports cost- efficient maintenance methods such as risk-based maintenance or preventive maintenance
- Provides comprehensive outage planning and powerful work order management.

Equipment Master is a repository of the standard information that one needs related to a specific piece of equipment.

Equipment/Plant Maintenance provides a variety of reports to help us to review and manage information about our equipment and its maintenance.

Plant Maintenance (PM) Reports are used to review and manage information about preventive maintenance schedules and service types within any maintenance organization.

PM REPORTS

- Status of service types for a piece of equipment
- The frequency of occurrence for selected service types
- Maintenance messages
- All equipment transactions

PROJECT SYSTEMS MODULE

- Integrated project management tool used for planning and managing projects and portfolio management.
- When a project request is received, a project is created and it undergoes the following steps in project process flow.
- Before a project is initiated, project goal is clearly defined and the activities be structured.
- Each process has a defined set of tasks to be performed known as process flow in Project Lifecycle.

Contd..

The Project Manager has a task to ensure that these projects are executed within budget and time and to ensure proper resource allocation :

1. Cost and planning budget.
2. Scheduling.
3. Requisitioning of materials and services.
4. Execution

Project Request

MCQ Time !

Q. Whenever there is a maintenance ticket raised, the spares which were reserved for maintenance order will be issued by MM against the reservation number issued by which module?

a) Production Planning

b) Plant Maintenance

c) Controlling

d) Supply Chain

QUALITY MANAGEMENT MODULE(QM)

Quality Planning: Quality planning is the process of planning the production activities to achieve the goals .

Quality Control: System for ensuring the maintenance of proper standards in manufactured goods,

It includes :

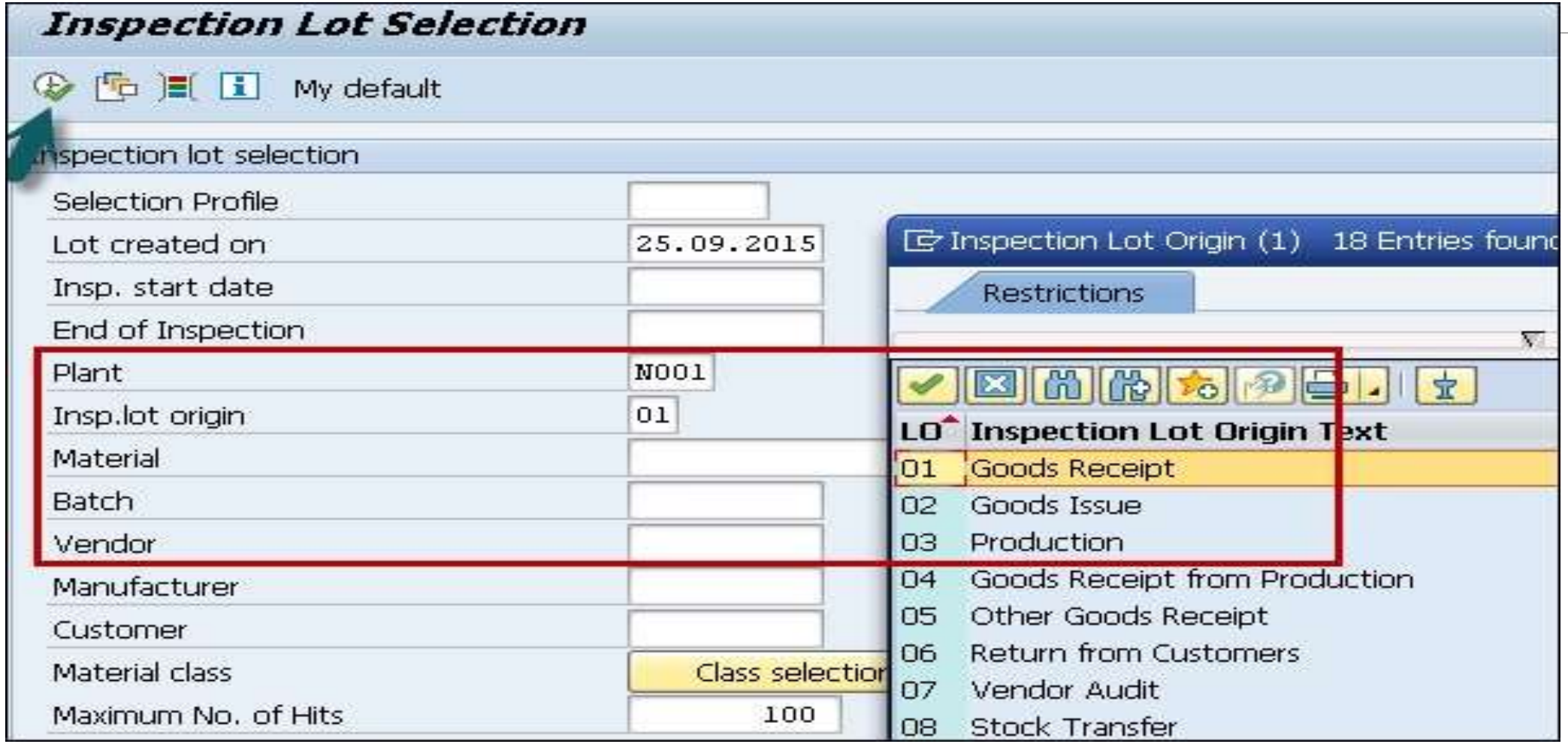
Periodic random inspection of the product.

Checking and monitoring of the process and products

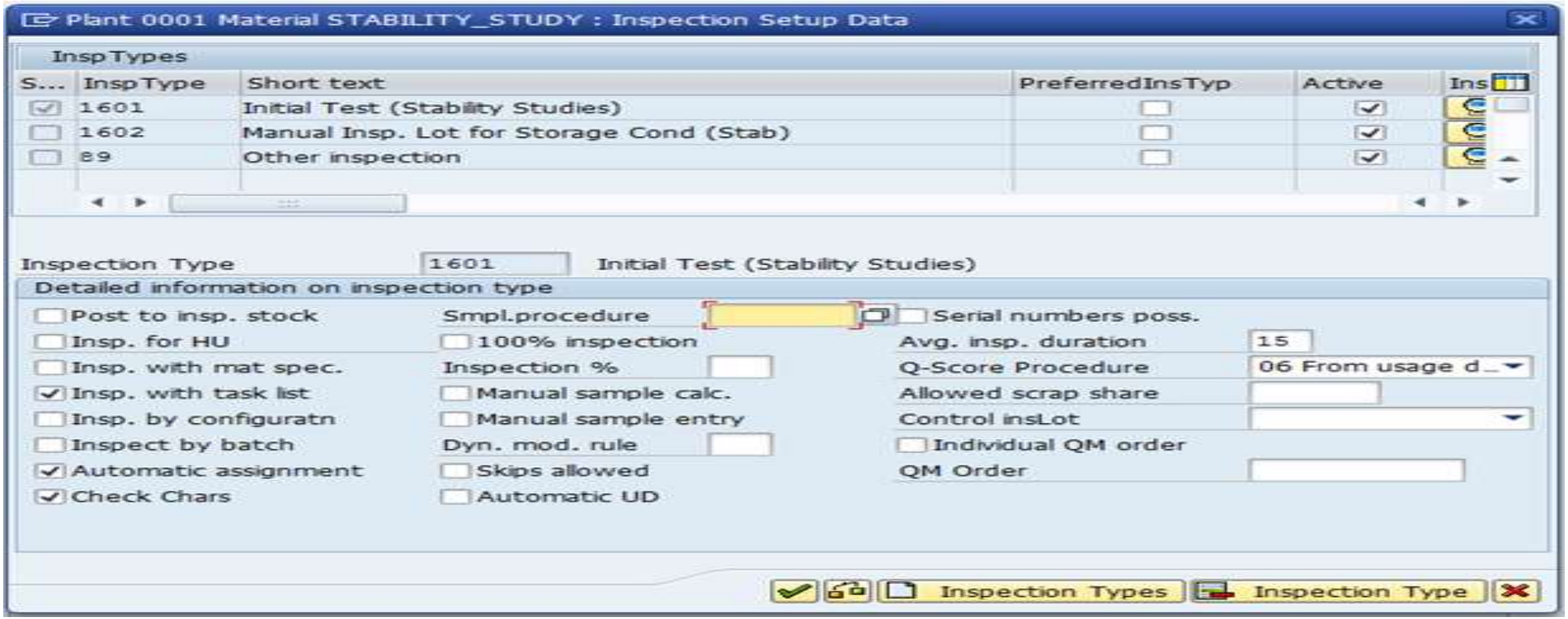
Identification of result areas for each process.

Verify of results achievement.

Example



Example



SUPPLY CHAIN MODULE (SCM)

- A network of autonomous or semi-autonomous business entities
- Collectively responsible for procurement, manufacturing, and distribution activities.
- Helps to optimize your supply chain for months in advance.
- Streamline processes such as supply network, demand, and material requirement planning; create detailed scheduling;

Contd..

- Provides extensive functionality for logistics, manufacturing, planning, and analytics. In other words, a supply chain is a network of facilities that procure raw materials, transform them into intermediate goods and then finished products, and then finally deliver the products to customers through a distribution system or a chain.
- Refine production integration, and maximize transportation scheduling.

HUMAN RESOURCE MODULE

- Recruitment
- Organizational Management
- Travel Management
- Payroll accounting
- Training and event management
- Personnel Administration
- Time Management

CUSTOMER RELATIONSHIP MANAGEMENT MODULE (CRM)

Manages the enterprise's relationship with its customers and aims at :

a) Finding new prospective customers

b) Improving the relationship with existing customers.

c) Winning back former customers.

d) Determines who the high-value customers are and documenting interactions of the customers.

CRM (Contd)

- This system can be brought into effect with software which helps in collecting, organizing, and managing the customer information.
- Only large ERP packages have a CRM module.
- The CRM module uses the existing ERP tables as the source of its data. This is primarily the Contact, Customer, and Sales tables.
- CRM does not exchange transactions with other modules as CRM does not have transactions.

KEY BENEFITS OF CRM

- Improved customer relations.
- Better internal communication.
- Maximize up-selling and cross-selling.
- Better internal communication.
- Increase customer revenues.

MCQ Time !

Q. Supplier scheduling was done by the admin team member as per the approved vendor list. It comes under which ERP module?

a) Inventory

b) Supply chain

c) Manufacturing

d) CRM

INTEGRATION WITH OTHER MODULES

- Master data across all the modules must be same and must be shared with other modules where-ever required.
- Common transaction data must be shared with other modules where-ever required.
- Separate voucher types to be used for each module for easy identification of department recording it.
- Figures and transaction may flow across the department.

INTEGRATION POINTS

- Material Management Integration with Finance and Controlling (FICO).
- Material Management Integration with Production Planning.
- Material Management Integration with Sales and distribution.
- Material Management Integration with Quality Management.
- Material Management Integration with Plant and Maintenance.

MCQ Time !

Q. When the delivery is created, the quantity to be delivered is marked as "Scheduled for delivery", and is deducted from the total stock as present in the MM module. Which would be integration point with respect to MM module in this case?

a) Controlling

b) Customer Relationship Management

c) Supply Chain

d) Sales and Distribution

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THANK YOU