FIT5101 Enterprise Systems

Lecture 03

- Organizational, Master and Transactional Data
- Master Data Management
- Introduction to Case Study (GBI)
- Assignment 1

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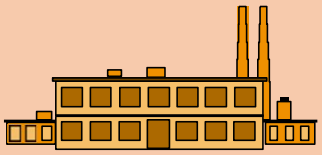
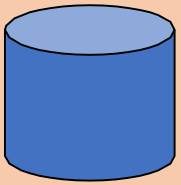
Unit Topics (Subject to change)

Week	Date (W/C)	Lecture	Tutorial	Assessment
1	1/3	Introduction	Introduction	
3	15/3	ERP Structures	SAP Introduction	
5	29/3	Sales & Distribution	Procurement	
	5/4	BREAK		
6	12/4	Production Planning	Sales & Distribution	Ass 1 Due
8	26/4	Process Integration & Modelling	Financials	
10	10/5	Current Technologies	Work on Assignment	
12	24/5	Review	??	Ass 3 Due

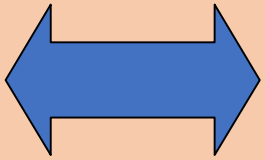
SAP Key Business Elements



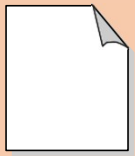
Organizational Unit



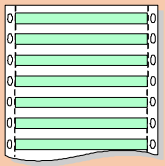
Master Data



Transaction



Document



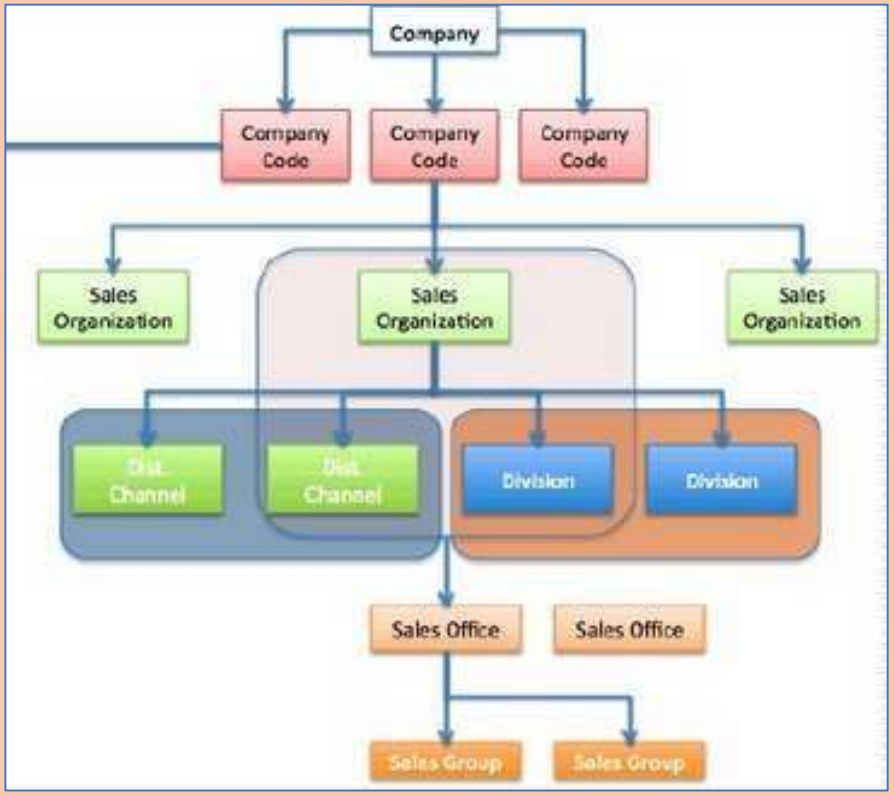
Report

Organizational Elements

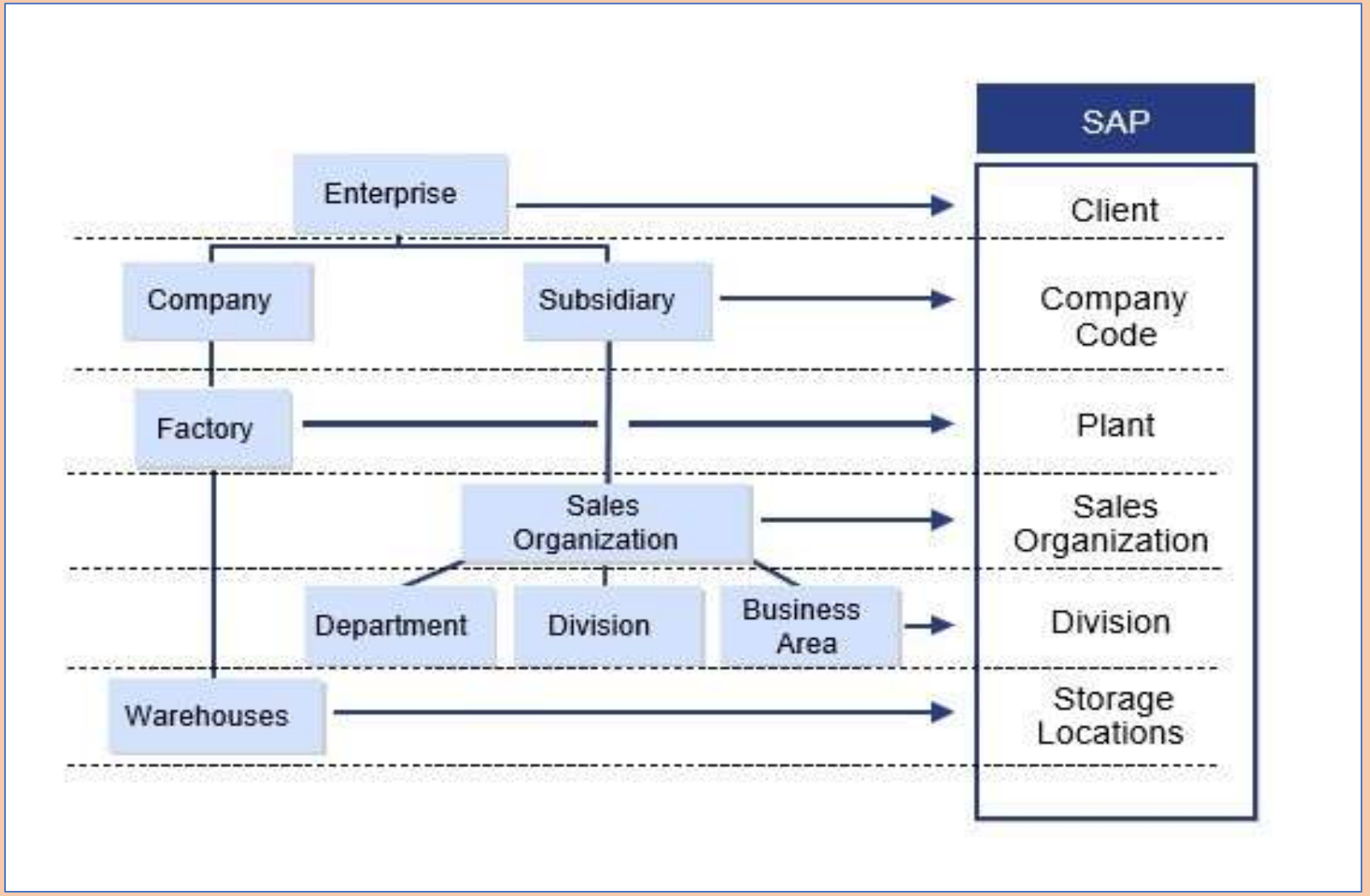
Definition :

In the SAP System, organizational elements form structures that represent the legal and organizational views of a company.

In summary, the organizational elements and their structures form the framework in which *all* business transactions are processed.



Organizational Elements



Organizational Elements - Client

Highest Hierarchical Level in SAP(e.g. a Corporation)

The SAP client concept allows an organization to split a system into logical subunits. Clients may operate as separate business units, where all data is stored in a common database. Access rights for each client are defined during the installation process. Client specific data includes user master data (including authorizations and user groups), data customization and application/business data.

Can be Used to Differentiate between a Development, Quality Assurance, and Production System within SAP

Note: The Client Number may vary

Organizational Elements - Client

Development & Customizing

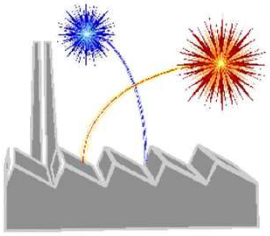
Configuring of client settings and creation of new functionality

Quality Assurance

Functionality testing and verification of configuration

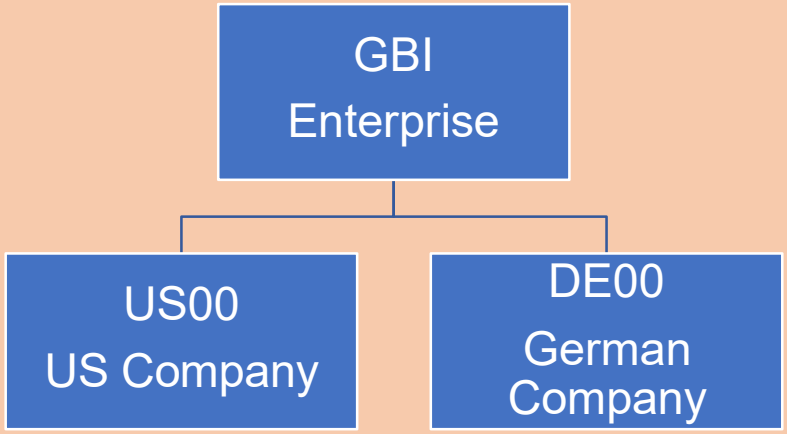
Production

Productive activities and business data

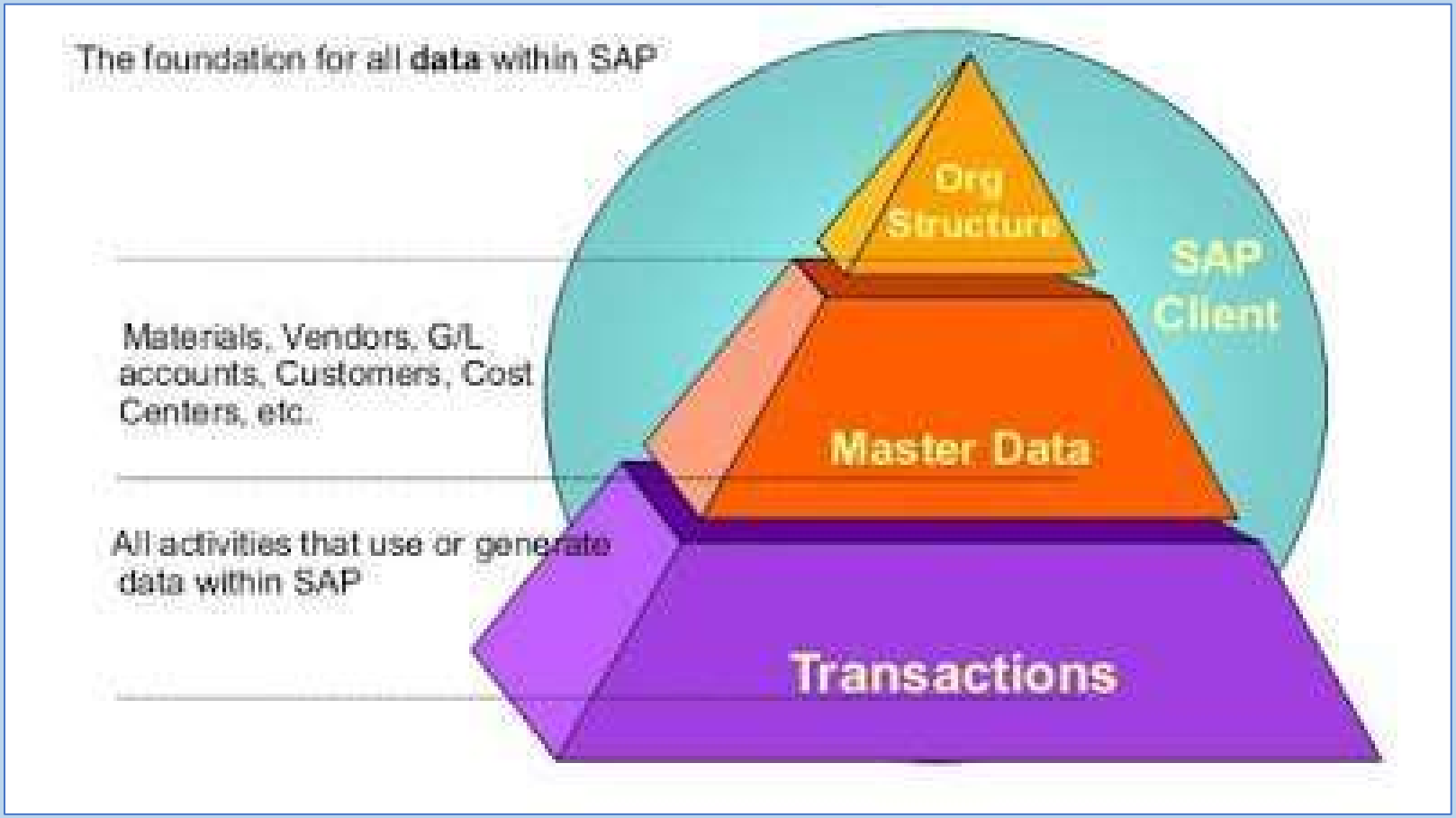


Organizational Elements - Company

A **client** is the highest organizational level in SAP ERP. It represents an enterprise consisting of many companies or subsidiaries. Each company within the enterprise is represented by a **company code**. Each company code represents a separate legal entity, and it is the central organizational element in financial accounting. That is, financial statements required for legal reporting purposes are maintained at the company code level. A client can have multiple company codes, but a company code must belong to only one client.

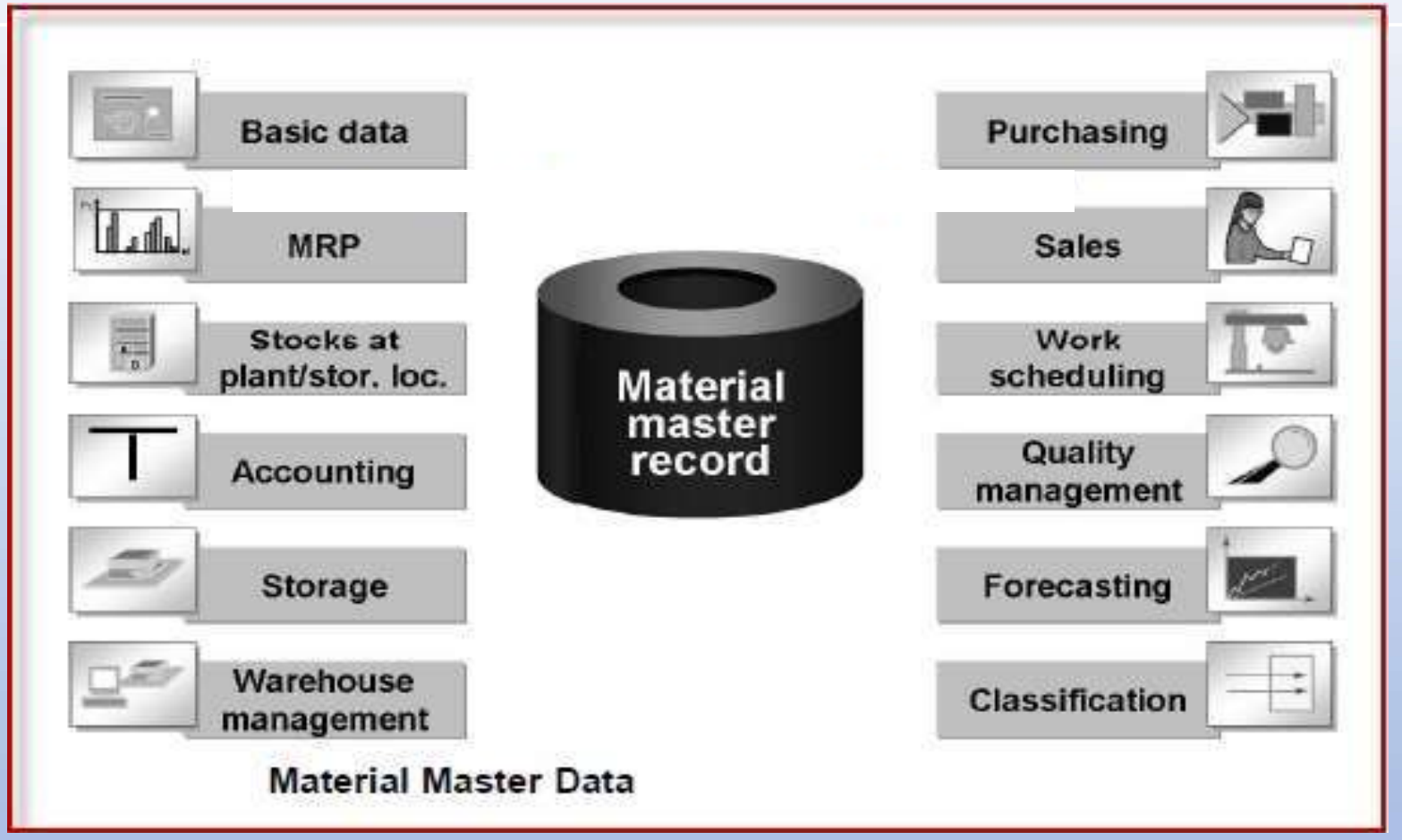


Master Data vs Transaction Data



Video : https://youtu.be/Iv9P5D6yj30

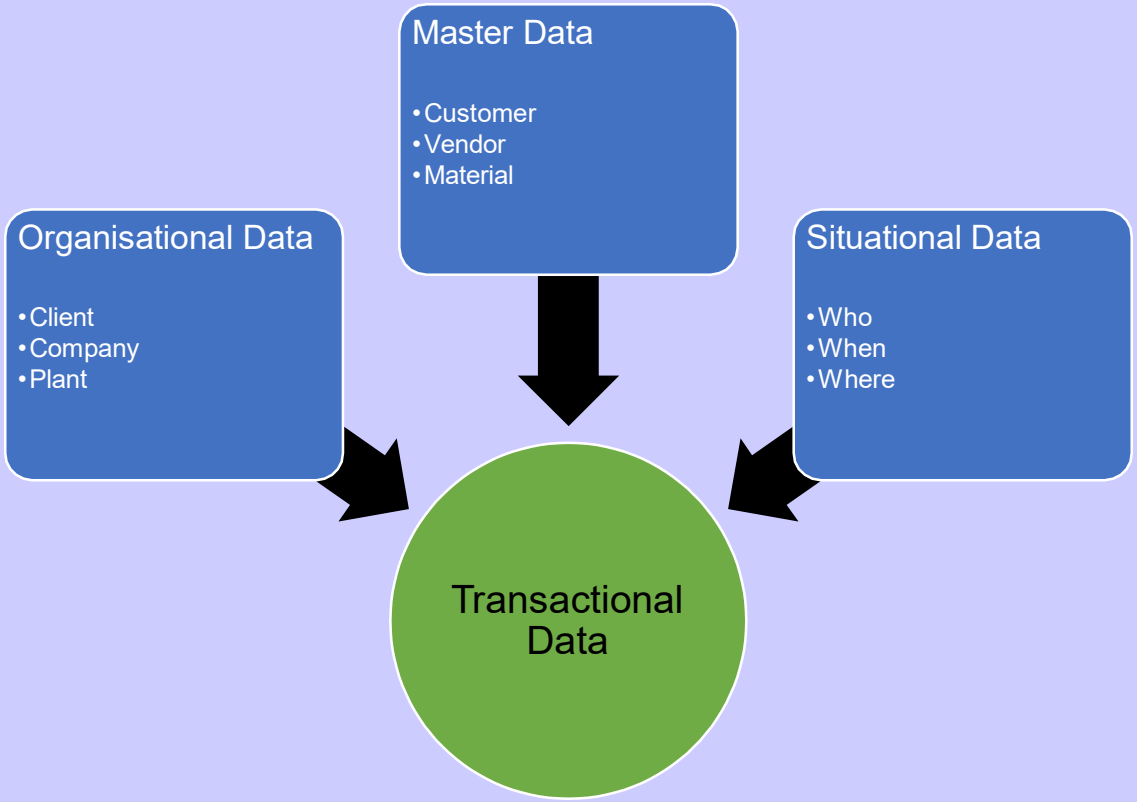
Master Data Example – Material Master



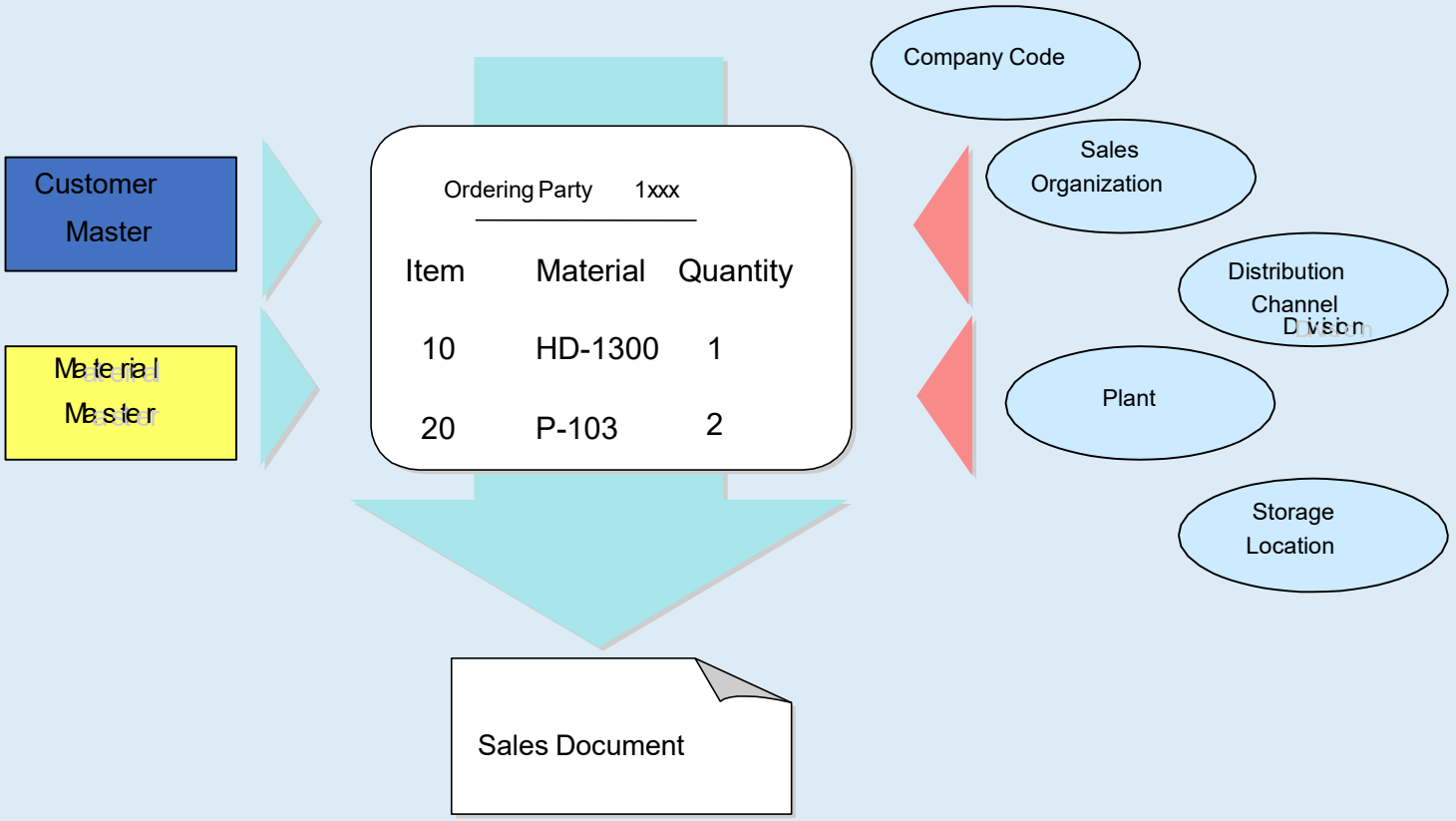
Because the Material Master is used in many processes, it must include a large amount of data. To manage these data, the Material Master groups them into different categories or *views*, each of which is relevant to one or more processes.

Processes are executed in the context of organizational levels, involve master data, and result in transaction data. **Transaction data** reflect the consequences of executing process steps, or *transactions*. Examples of transaction data are dates, quantities, prices, and payment and delivery terms. Thus, transaction data are a combination of organizational data, master data, and situational data—that is, data that are specific to the task being executed, such as who, what, when, and where.

Transactional Data



Transactional Data Example – Sales Order

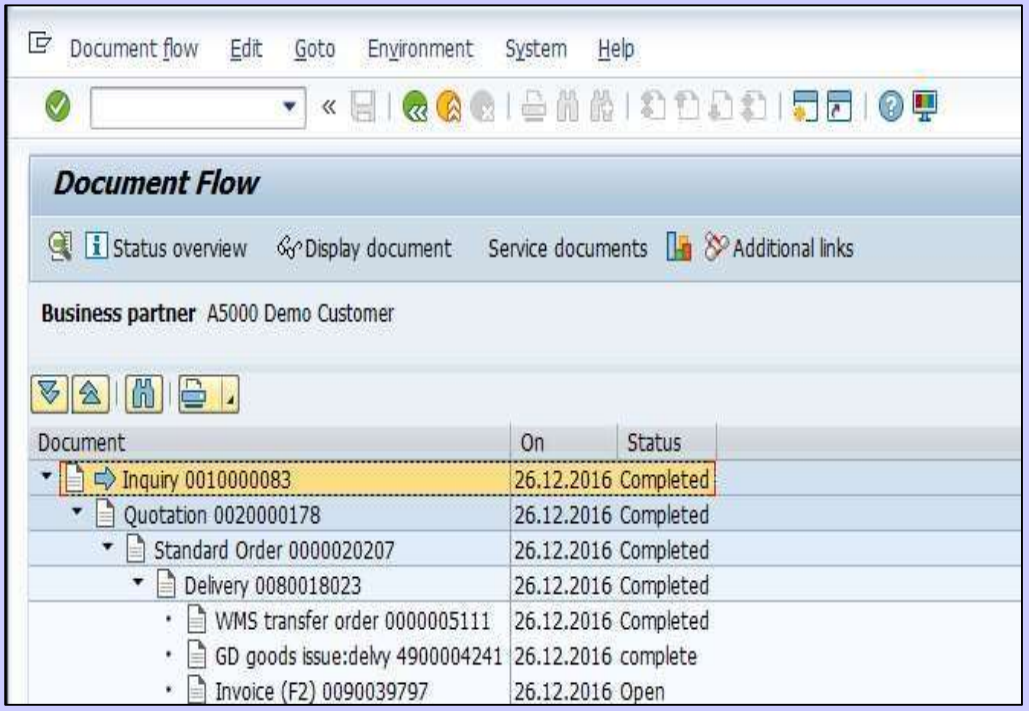


Documents record data after the process steps are completed.

These include financial accounting [FI] documents, management accounting or controlling [CO] documents, and material documents.

FI and CO documents record the financial impact of process steps. For example, when a company receives a payment from a customer, there is a financial impact, and an FI document is created. Material documents record materials movements, such as when materials are received from a vendor or shipped to a customer.

Documents



Reports

- Every enterprise system contains transaction and historical data in its main database. Transaction data relate to processes that are currently in use or have been completed recently.
- Historical data are typically comprised of transaction data for processes that have been completed within months or years.
- **Reporting** is a general term used to describe the ways that users can view and analyze data to help them make decisions and complete their tasks.
- Reporting capabilities range from simple lists of information for basic users to analytical tools that can perform powerful statistical analysis and advanced calculations to produce extremely detailed information for specialist users.

Master Data Management

Master Data Management (MDM) is a set of disciplines, technologies, and solutions used to create and maintain

- **consistent,**
- **complete,**
- **contextual and**
- **accurate**

data quality business data for all stakeholders (users, and applications) across and beyond the enterprise landscape.

"Move to a *single version of the truth* about business objects".

Video : https://youtu.be/h3LamD_K1vI

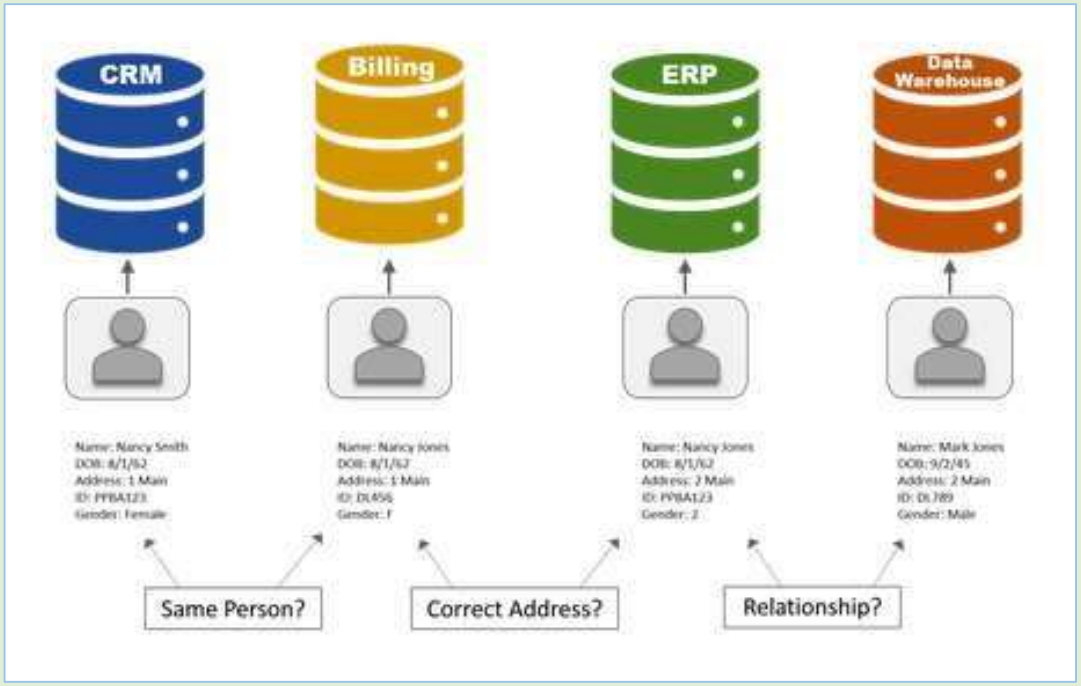
Master Data Management

The Main Drivers :

- **Regulatory compliance and reporting (Sarbanes Oxley – covered later)**
- **Partner integration and collaboration**
- **Global demand and supply chain optimization**
- **Privacy and data protection**
- **Meaningful data mining and analytics**
- **Improved customer insight and interactions**
- **Better able to manage data**
- **Data integration to enable BI**

Master Data Management

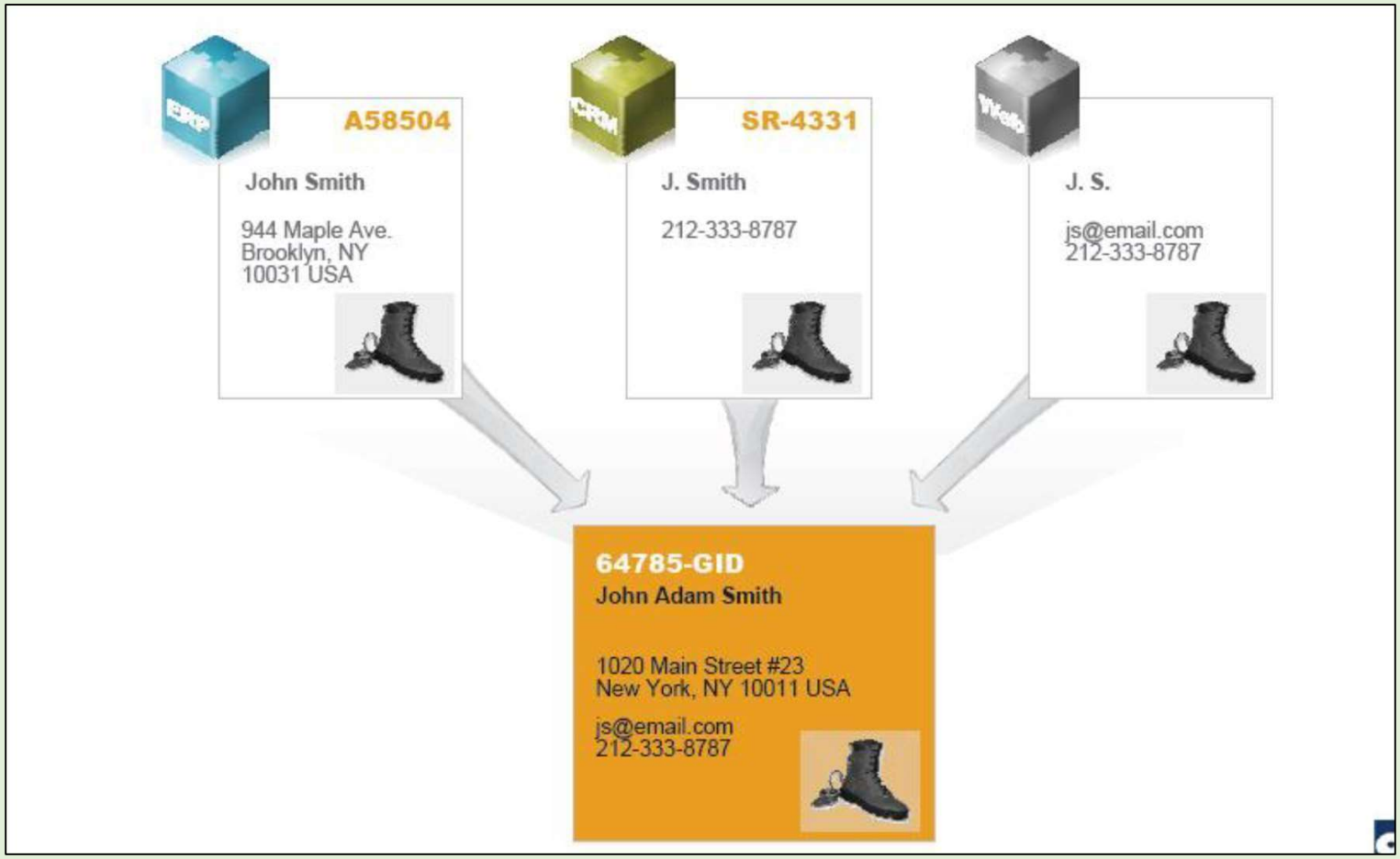
No MDM - No one consistent view of data –every department has a different view of data



Master data generated and trapped in silos.
Inaccurate information perpetuated.
Incomplete view.

Master Data Management

Managing customer information



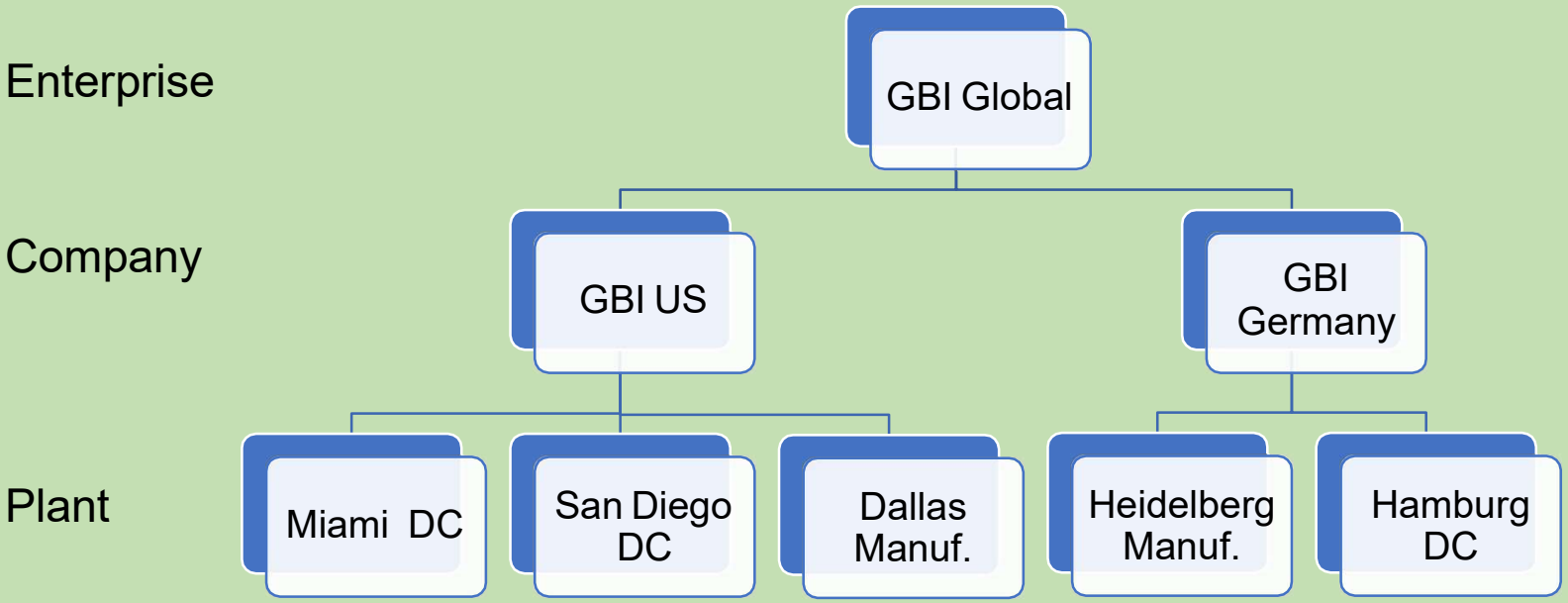
Case Study – Global Bicycles Inc.

GBI was founded in 2001 following the merger of two bicycle manufacturers, one based in the United Sates and the other in Germany. GBI has three lines of business: deluxe and professional touring bikes, men's and women's off-road bikes, and bike accessories. GBI sells its bikes to a network of specialized dealers throughout the world, and it procures its raw materials from a variety of suppliers globally.

GBI has two manufacturing facilities, one in the United States and one in Germany. It also has three additional warehouses, two in the United States and one in Germany. GBI has more than 100 employees globally. The organization uses SAP to support its processes.

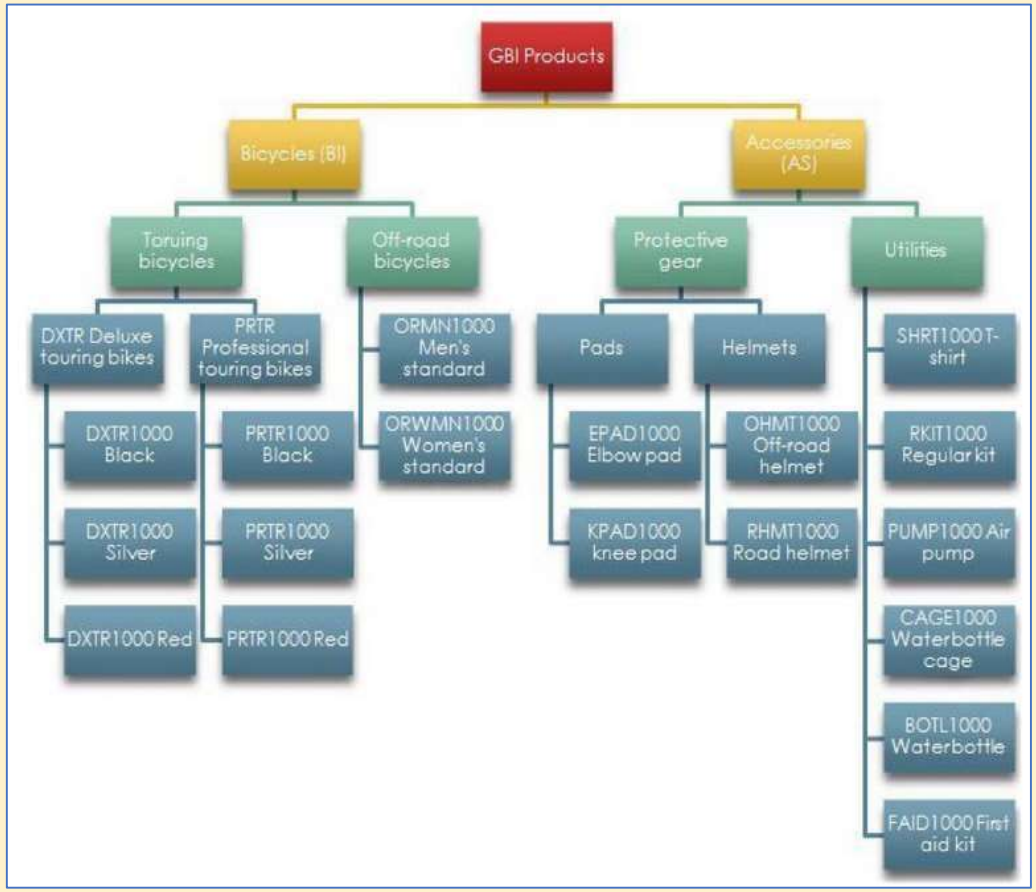
Video: Introduction to GBI
https://youtu.be/LjsQoQNlQr0

Case Study – Global Bicycles Inc.



GBI Enterprise Structure

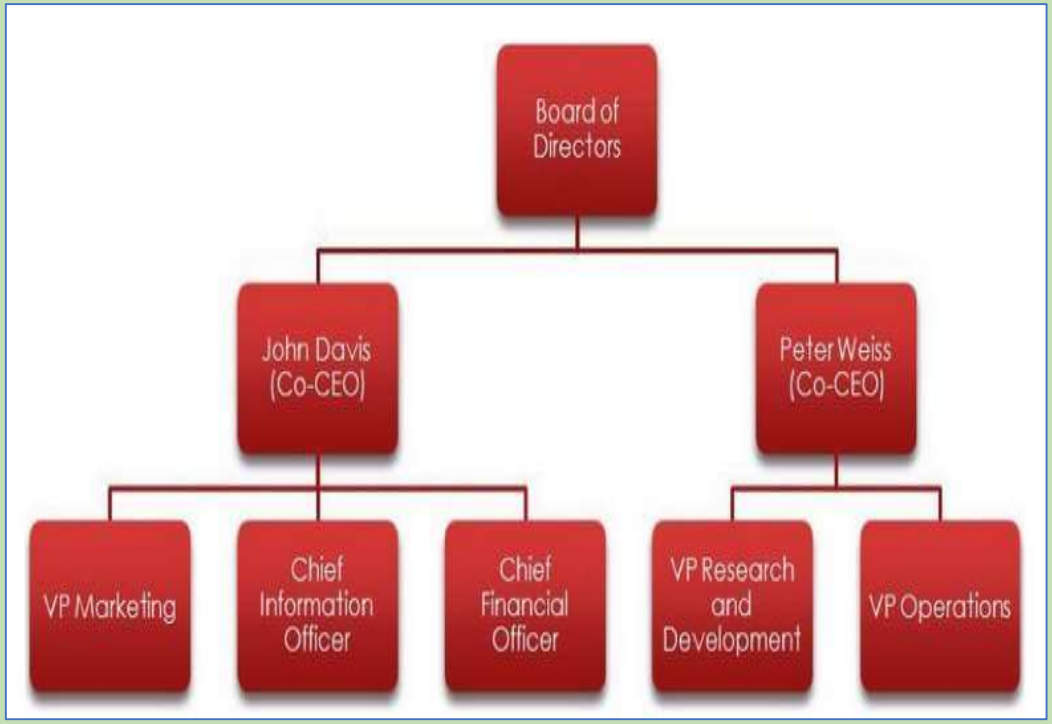
Case Study – Global Bicycles Inc.



GBI Product List

GBI serves the professional and consumer cyclist market for mountain (off-road) and touring (road) bikes. GBI is known for its carbon composite frames, which are strong, lightweight, and low maintenance.
GBI also sells bicycling accessories to their customers e.g. helmets, first aid kits, shirts, and water bottles.

Case Study – Global Bicycles Inc.



John and Peter are the co-CEOs of GBI. The company has approximately 100 employees.
Roughly two-thirds of them work in the United States; the rest are employed in Germany.
The top-level organizational structure of GBI is shown

Case Study – Global Bicycles Inc.

Production Plants

- GBI operates two production facilities, Dallas and Heidelberg.
- Each facility has three assembly lines and each line can produce approximately 1,000 bikes per year. Total production capacity is roughly 6,000 bikes per year, but it can be increased by 15%-20% by authorizing overtime hours and hiring part-time workers.
- GBI has outsourced the production of both off-road and touring frames and the carbon composite wheels to trusted partners who have specialized facilities to fabricate the complex materials used.
- GBI maintains highly collaborative research and design relationships with these specialty partners to ensure that innovations in both material and structural capabilities are incorporated into the frames.
- GBI primarily assembles *semi-finished goods* into *finished goods* at its production facilities. Finished goods are either stored in the local warehouse or shipped to other regional distribution centers to fulfill customer orders.

Assignment 1 : ENTERPRISE SYSTEM EVALUATION REPORT

SMART WATERPUMPS

Assignment 1 : Smart WaterPumps

Smart WaterPumps is an Australian manufacturer of water pumps and booster sets for use in farm, household, swimming pool and firefighting applications. The pumps are sold to plumbers and retail outlets. The home office is in Melbourne, which is also the headquarters for the main sales office. A sales office is also located in Albury, NSW. The company has two manufacturing plants in Australia: one in Melbourne, and another one in Albury, NSW.

Assignment 1 : Fitter Snacker

Smart WaterPumps is a growing company whose current IT systems lack the flexibility and scalability to support its growth into new markets over the next decade. Furthermore, the current IT systems do not provide the data needed for analysing the costs and profitability of different products, sales regions and parts of the company. Smart WaterPumps is yet to develop a 'green' water system that will help them meet their growth objectives and which can be used in third world countries. The key strategy for Smart WaterPumps is its commitment to customer satisfaction by delivering the product(s) at the right time, right place, and at the right price. Smart WaterPumps is organized around processes that are focused on the value add to customers.

Enterprise System Evaluation Report

Mark allocation: 100

Weighting: 30%

Due date: Monday May 3rd @ 11:55PM

Word Length: No limit

Reference count: Approx 10

Working strategy: Work together in project teams of 4

Aim:

Produce a clearly articulated and well researched Enterprise System Evaluation Report to be given to the Board of Directors of Smart WaterPumps to successfully assist the organisation with their business improvement strategy.

Enterprise System Evaluation Report

Key Deliverables:

Evaluate different enterprise systems and select an appropriate Enterprise System for use by Smart WaterPumps based on the case study requirements and business drivers.

Project deliverable documents to include:

A team project plan (using the template provided)

Agenda and minutes (using the template provided)

Individual timesheets (using the template provided)

Enterprise System Evaluation Report : Report Template

Title Page
Exec Summary
Table of contents page

1.Introduction

1. **Purpose**
2. **Scope**
3. **Audience**

2.Project Background

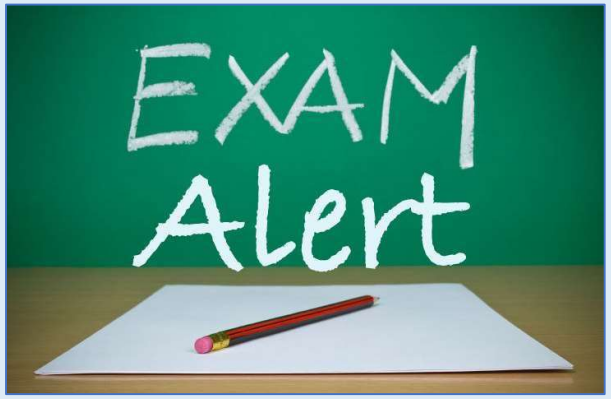
3.Vendor and software selection

4. Overall summary

5. References (APA Reference Style)

6. Appendix (Include the evaluation table here)

Sample Exam Questions



A. What is the difference between an Organizational Unit and Master Data ?

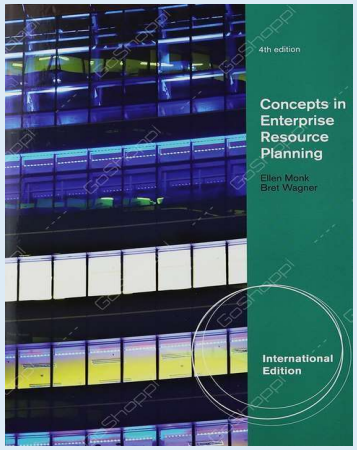
B. How would an organisation use different *Clients* in SAP ?

C. What is the purpose of a Material Master *View* ?

D. What must be defined before any *transactional data* can be entered in an ERP system ?

E. What is the function of *Master Data Management* ?

References



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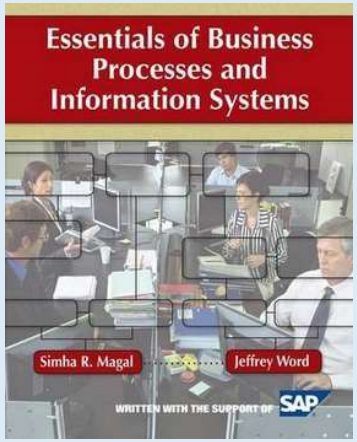

Magal & Word Chap 2