



Nakhon Pathom Rajabhat University



Chapter 3

Information System for Logistics Management

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Nakhon Pathom Rajabhat University



Outlines

- Characteristics of a good database
 - Selection of Logistics software development
 - Logistics software
 - Electronic Data Interchange
 - Teamwork in Logistics
 - Exercises
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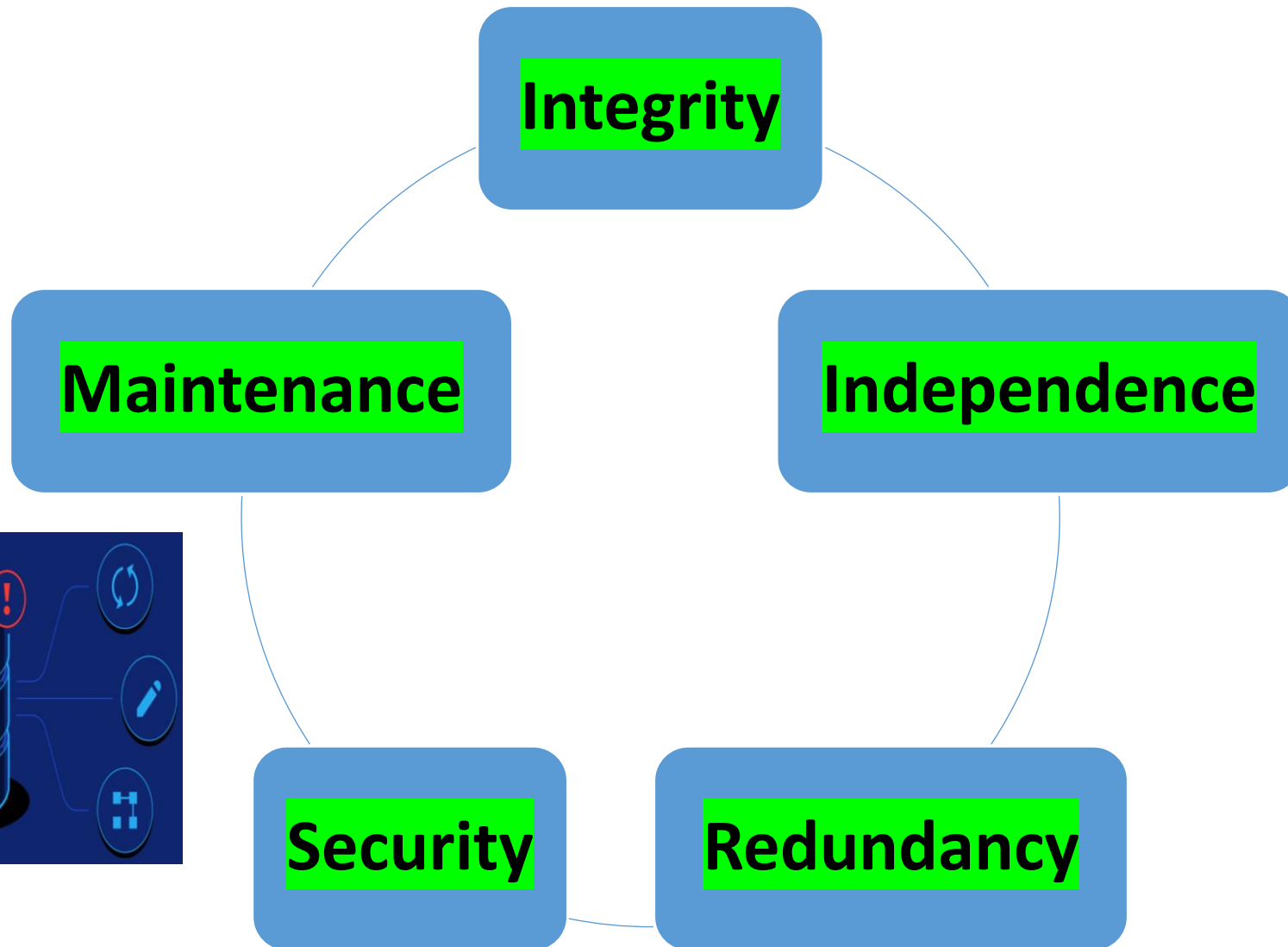


Definition of database

A database is “an organized collection of structured information, or data, typically stored electronically in a computer system”.



Characteristics of a good database





Definition of Logistics software

Logistics software is “a platform for automating and managing fleet and warehouse tasks like order processing, inventory control, freight transportation, and so on.”



Selection of Logistics software development



(1) Identify Goal

Determine what problems need to be solved in your company. For example, late deliveries are a big problem for customers so the identified goal might be to increase on-time deliveries by 100%.





(1) Identify Goal (con't)

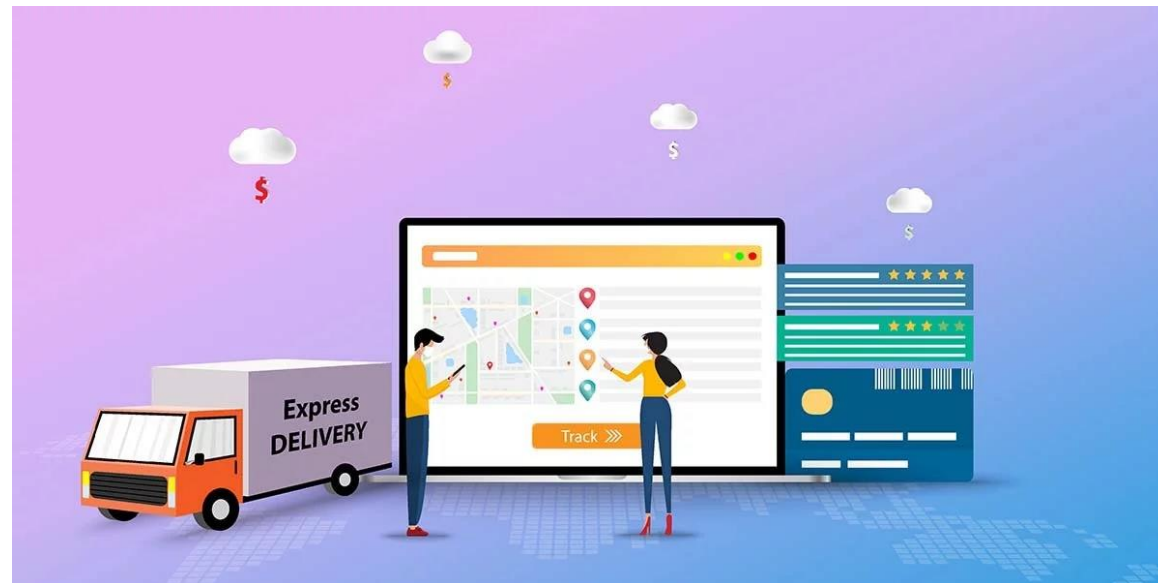
Other goals might include reducing vehicle maintenance costs, reducing the number of staff needed for logistics operations, or increasing efficiency across the company. Once you have these goals identified, try to determine what features and functions might help.





(2) Ask for Recommendation

Ask other companies like yours what logistics software they use and what they like about it. Be sure to ask about things like usability, customer service, and functionality.





(3) Perform Research

Compile a list of potential vendors and research their offerings. Keep in mind the goals you've already established and make sure that the solutions you are examining have the necessary features and functions. In addition to those functions, each platform should be able to integrate with your existing technology stack. And, of course, it must be within your budget.



(4) Narrow the Search

Based on your research, narrow the search to two or three final candidates. Find out if you can use the software on a trial basis or, at the very least, get a demonstration. Now is the time to take advantage of any resources each vendor might have available, such as a sales presentation. Once you have seen the software in action, make your final decision.



Logistics software

Logistics software “refers to a wide range of technology solutions like order management, inventory management, warehouse management, transportation management, and fleet management.”





Logistics software (con't)

Five keys software in Logistics Management i.e.

- **Order Management System**
- **Inventory Management System**
- **Warehouse Management System**
- **Transportation Management System**
- **Fleet Management System**

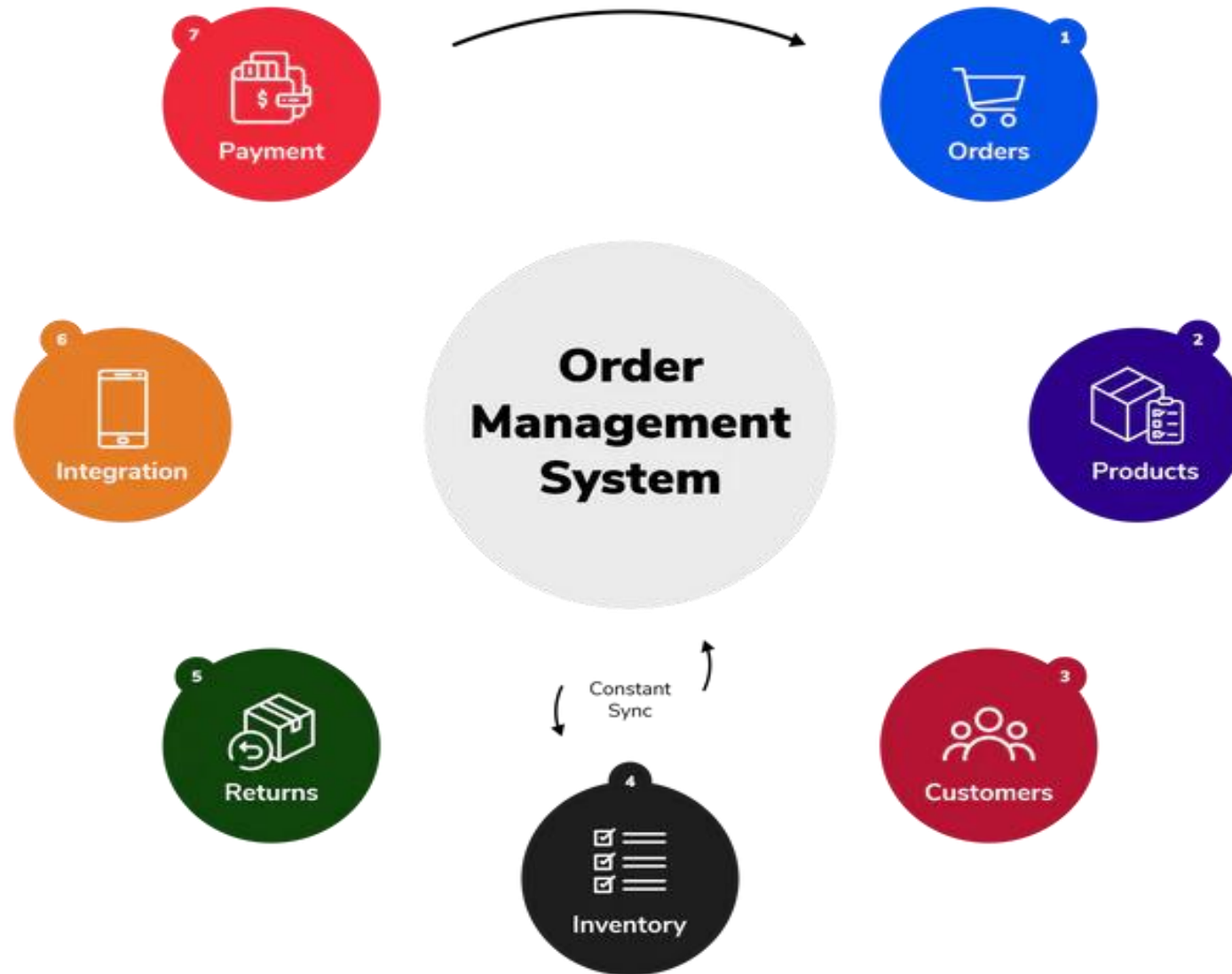


Order Management System

Order Management System (OMS) can “tracks sales, orders, inventory, and fulfillment as well as enables the people, processes, and partnerships necessary for products to find their way to the customers who bought them.”



Order Management System Modules





Inventory Management System

Inventory Management System (IMS) can be “used to monitor and manage every stock item in the supply chain of your business.”



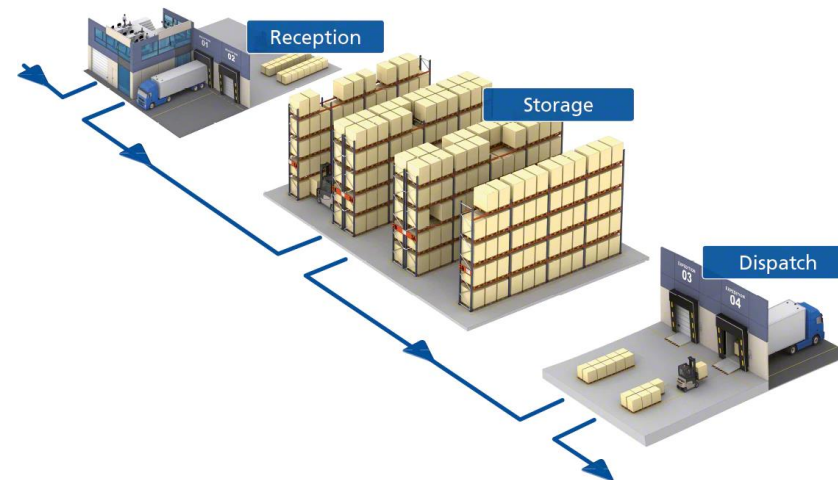
Inventory Management System Modules





Warehouse Management System

Warehouse Management System (WMS) can “keep warehouses organized, keeps track of inventory and facilitates the smooth fulfillment of orders.”



Warehouse Management System Modules





Transportation Management System

Transportation Management System (TMS) can “help businesses efficiently manage and optimize transportation activities, whether by road, air, or sea.”



Transportation Management System Modules



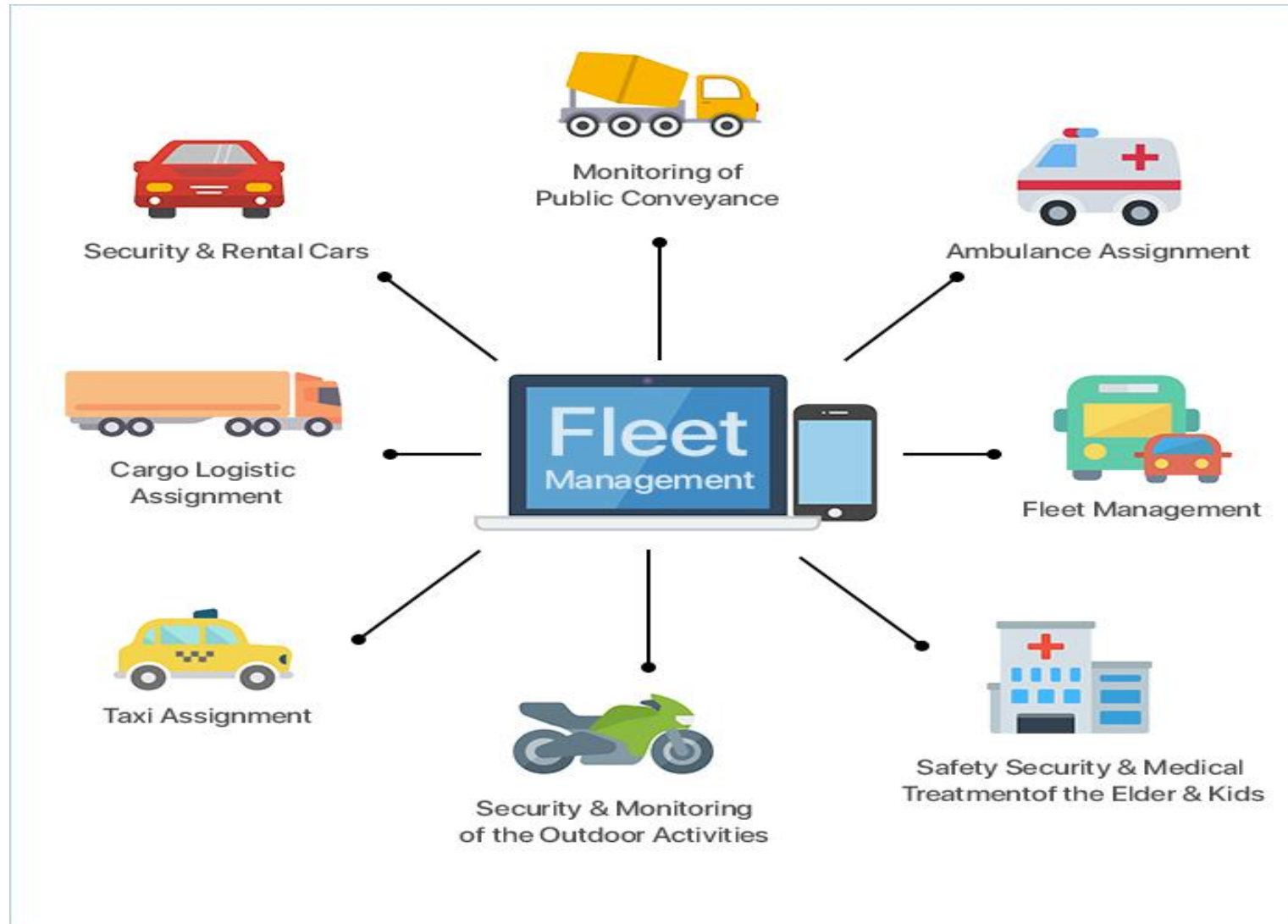


Fleet Management System

Fleet Management System (FMS) can “help businesses that operation and maintenance of their vehicles.”



Fleet Management System Modules





Electronic Data Interchange

Electronic Data Interchange (EDI) is “the computer-to-computer exchange of business documents in a standard electronic format between business partners.”





The difference between process flow with EDI and without EDI

Computer-to-computer EDI replaces postal mail, fax, and email. While email is also an electronic approach, the documents exchanged via email must still be handled by people rather than computers. Having people involved slows down the processing of the documents and also introduces errors. Instead, EDI documents can flow straight through to the appropriate application on the receiver's computer and processing can begin immediately.

A typical manual process looks like this, with lots of paper and people involvement :



BUYER GENERATES
PURCHASE ORDER



Faxes or Mails



SUPPLIER ENTERS ORDER
INTO INTERNAL SYSTEMS AND
PRINTS AN INVOICE



Faxes or Mails

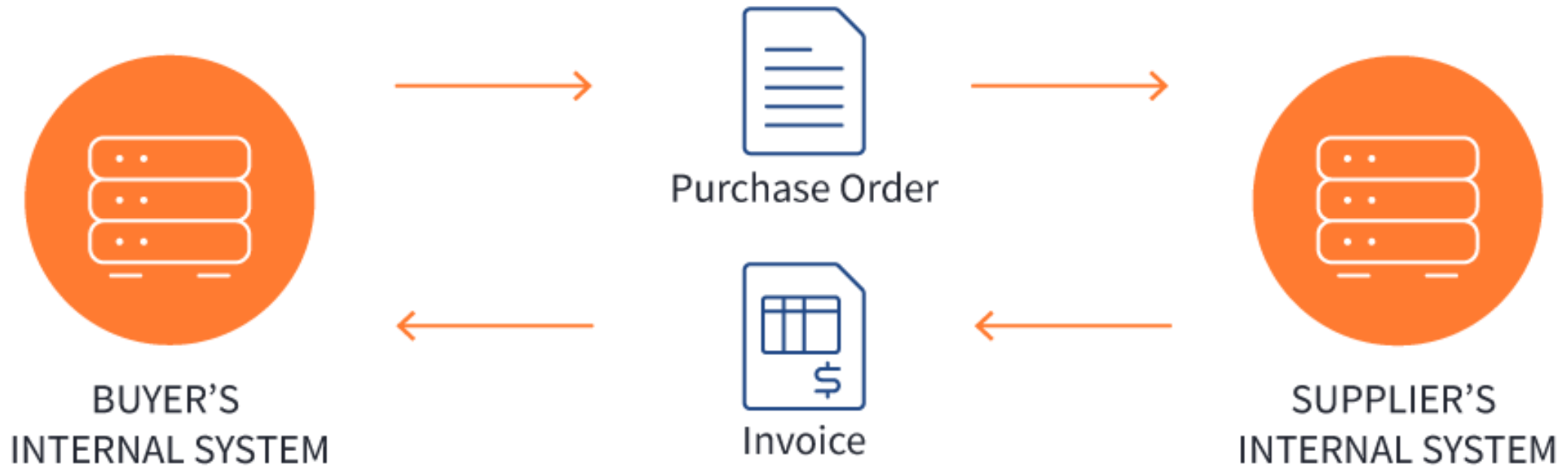


INVOICE

BUYER ENTERS INVOICE
INTO INTERNAL SYSTEM
FOR PROCESSING

The EDI process flow looks like this

— no paper, no people involved :





Example of Logistics Activities with EDI and without EDI

Order processing **without** EDI



Order processing **with** EDI



Teamwork in Logistics



Logistics teamwork is one transferable skill that lies at the heart of logistics. Collaboration and communication within your team across various business departments ensure that projects are run most effectively and efficiently. At a time when speed and quality are of the essence, the ability to work as a team is fundamental to the success of any area of a business.

Exercises Chapter 3



Question 1 : What are the characteristics of a good database ?

Question 2 : How do we select Logistics software development ?

Question 3 : What are the key software in Logistics Management ?

Question 4 : What are the differences between process flow with EDI and without EDI ?

Question 5 : What is the meaning of teamwork in Logistics ?



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