جامعة التنمية البشرية
UNIVERSITY OF HUMAN DEVELOPMENT

Data Warehouse

Prepared by:

Mohammed Rzgar

Group: IT-C2

What does POS **mean?**

POS is an acronym most commonly used to mean *piece of shit*.

In retail, it stands for *point of sale* and refers to the combination of hardware and software that make up modern cash registers.

In internet and texting slang, *POS* means *parent over shoulder* and functions as a warning not to say anything that could get a young user in trouble with their folks.

ERP Basics

The acronym ERP stands for Enterprise Resource Planning and refers to creating a more efficient, leaner, better-automated and integrated business through sophisticated technology solutions.

ERP software then, is a business management technology solution that businesses and manufacturers use to collect, store, manage, and communicate data across all functions of the enterprise. Users interact with the software via visually-collaborate dashboards. Typically ERP dashboards contain color-coded bar charts and graphs, along with other visual descriptions of data that give users a fast look at key metrics. It is crucial that ERP users have access to dashboard metrics because they track and measure data that leads to business process improvement.

If you want to learn more about ERP, the guide below is a great place to start, or you can watch our video above.

Main Characteristics of Enterprise Resource Planning:

Central Database

Enter data once into your ERP solution and it can be accessed by any other

user. Think of it as a common room for stored ERP information

Operates in Real Time

Once information is placed into the ERP software, it updates throughout the

system, providing up-to-date information in real time for all of its users.

Comprehensive

This means that most of your daily business functions and processes should be able to operate within the ERP software.

What is ERP Software?

At its most fundamental level, ERP software integrates information from all areas of a business into one complete enterprise system so data can be shared across departments in real-time in order to streamline processes and automate common tasks.

At its core, an ERP system is a database management system, creating and managing a database of business processes including:

- Accounting and Finance
- Raw materials
- Production capacity
- Supply chain management

- Workforce scheduling
- Human resources
- Human capital management

What is Legacy?

The Definition of Legacy:

The dictionary would define Legacy as a gift or a bequest, that is handed down, endowed or conveyed from one person to another. It is something descendible one comes into possession of that is transmitted, inherited or received from a predecessor. It is to cause or allow something originating from an ancestral source to spread between people or provide something freely and naturally.

Legacy:

Often when you think about legacy, it's something that is left behind after a person has passed. Legacy is more about sharing what you have learned, not just what you have earned, and bequeathing values over valuables, as material wealth is only a small fraction of your legacy. A more holistic definition of legacy is when you are genuinely grounded in offering yourself and making a meaningful, lasting and energizing contribution to humanity by serving a cause greater than your own. The requirements of a legacy are that you embrace your uniqueness, passionately immersing your whole self into life so that your gift will be to all and that you take responsibility to ensure that it will have a life beyond that of you, its creator, outliving and outlasting your time on earth.

OLTP

WHAT IS OLTP?

OLTP (Online Transactional Processing) is a type of data processing that executes transaction-focused tasks. It involves inserting, deleting, or updating small quantities of database data. It is often used for financial transactions, order entry, retail sales and CRM.

While these databases have scaled significantly, they still present many limitations. They perform small but numerous transactions that can result in large data sets. However, pulling insights from these data sets requires accumulating, synthesizing, and then analyzing the large volume of data. OLTP was built to collect voluminous data transactions but not necessarily to analyze that data in the aggregate.

External web document

One of the **drivers** behind the data warehouse was to provide a better way to gain actionable intelligence from large quantities of small, fractured data sets. The **data warehouse** stores a copy of the data residing in OLTP databases, along with larger sets of Internet and cloud-born data, allowing query access to comprehensive enterprise data from one location, no matter how large or small the set.

If you're building a hypertext link to an external Web page in Notepad, you should know it's built a bit like an iceberg: It has a visible part (the link text, which appears as blue, underlined text by default) and an invisible-but-impressive part that's normally hidden (the specification of just which file clicking on the link will lead to). The visible part is the friendly, appealing bit; the invisible part will work for you too, but only if it's constructed just right.

metadata

A metadata repository is a database of data about data (metadata). The purpose of the metadata repository is to provide a consistent and reliable means of access to data. The repository itself may be stored in a physical location or may be a virtual database, in which metadata is drawn from separate sources. Metadata may include information about how to access specific data, or more detail about it, among a myriad of possibilities.

In an article in *Network Computing*, Nick Gall, a program director with the META Group's Open Computing & Server Strategies claims that (somewhat ironically) the mechanisms for cataloging data are "woefully inadequate" throughout the information technology (IT) sector. Gall compares the situation to an office containing stacks of papers: information can be searched for but not in any consistent, systematic, and reliable manner. According to Gall, "... the lack of adequate catalog services is the No. 1 impediment to interoperable distributed systems. The information is at our fingertips; we simply lack the ability to get it when and where we need it."

Finance

What is Finance?

Finance is defined as the management of money and includes activities like investing, borrowing, lending, budgeting, saving, and forecasting. There are three main types of finance: (1) personal, (2) corporate, and (3) public/government. This guide will unpack the question: what is finance

Finance Examples

The easiest way to define finance is by providing examples of the activities it includes. There are many different career paths and jobs that perform a wide range of finance activities. Below is a list of the most common examples:

- Investing personal money in stocks, bonds, or guaranteed investment certificates (GICs)
- Borrowing money from institutional investors by issuing bonds on behalf of a public company

- Lending money to people by providing them a mortgage to buy a house with

- Using Excel spreadsheets to build a budget and financial model for a corporation
- Saving personal money in a high-interest savings account
- Developing a forecast for government spending and revenue collection

What is an enterprise data warehouse?

As businesses become more data-driven, they generally want to use their data for faster decision-making and to improve business processes. Enterprise data contains insights on customer behavior, spending, and revenue. Modern data analysis and business intelligence (BI) involves integrating data from disparate sources, and harnessing it for analysis and BI, usually with the aid of an enterprise data warehouse (EDW).

An EDW is a central repository of data from multiple sources. It gathers enterprise data and makes it available for analysis, BI, and data-driven decision-making. Users (with privileges) across the organization can access and benefit from the data contained there.

EDWs contain current data, such as real-time feeds or the latest snapshots from source systems, as well as historical data. EDWs are the most accessible single version of the truth for enterprise data, because they consistently store final, nonredundant business information in one place. EDWs are also the storage platforms that underlie live analytical processes.

Marketing

 is the study and management of exchange relationships. Marketing is the business process of creating relationships with and satisfying customers. Because marketing is used to attract customers, it is one of the primary components of business management and Commerce.

Data Mart

In a market dominated by big data and analytics, data marts are one key to efficiently transforming information into insights. Data warehouses typically deal with large data sets, but data analysis requires easy-to-find and readily available data. Should a business person have to perform complex queries just to access the data they need for their reports? No—and that's why companies smart companies use data marts.

A data mart is a subject-oriented database that is often a partitioned segment of an enterprise data warehouse. The subset of data held in a data mart typically aligns with a particular business unit like sales, finance, or marketing. Data marts accelerate business processes by allowing access to relevant information in a data warehouse or operational data store within days, as opposed to months or longer. Because a data mart only contains the data applicable to a certain business area, it is a cost-effective way to gain actionable insights quickly.

Supply Chain

What Is a Supply Chain?

A supply chain is a network between a company and its suppliers to produce and distribute a specific product to the final buyer. This network includes different activities, people, entities, information, and resources. The supply chain also represents the steps it takes to get the product or service from its original state to the customer.

Supply chains are developed by companies so they can reduce their costs and remain competitive in the business landscape

Understanding Supply Chains

A supply chain involves a series of steps involved to get a product or service to the customer. The steps include moving and transforming raw materials into finished products, transporting those products, and distributing them to the end user. The entities involved in the supply chain include producers, vendors, warehouses, transportation companies, distribution centers, and retailers. The elements of a supply chain include all the functions that start with receiving an order to meeting the customer's request. These functions include product development, marketing, operations, distribution networks, finance, and customer service.