Class Announcements

- For next time
  - Read Cisco Case
    - HWk 2 due by start of class Tuesday
    - On ecommons
  - Laudon and Laudon Ch 10
  - Database Assignment 1 posted

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Database Tutorials

October

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All tutorials in Ming Ong PC lab in Merrill Room 103

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Enterprise Applications

Applications

- What is an application?
  - Computer software that performs useful capabilities for a user, organization, incorporating storage, manipulation, and communication of information.

- An organizational application
  - Supports an organization

- Often called enterprise application
  - (An enterprise is an organization with a commercial mission)
Types of organizational applications

- **Departmental**
  - Supports a single functional department.
  - Example: An accounts management application for an accounting department.

- **Enterprise**
  - Support enterprise-wide processes and goals.
  - Example: Coordinate information between functional departments involved in fulfilling an order (or other cross functional process).

Some Types of Organizational Applications

- **Worker Collaboration**
  - Example: Video conferencing.

- **Operations and Logistics**
  - Example: Coordinate movements of goods between sites.

- **Decision Support**
  - Support decision making by middle managers.

- **Knowledge Management**
  - Organize and retrieve knowledge in company’s documents and databases.

Examples

**Software Merchant**

- **Customer Relationship Management**
  - Maintain a case file of customer questions and complaints.
  - Website of Freq. Asked Ques. And documentation.
  - Chat application for customers to communicate with tech-support personnel.

**On-Line Stock Trading**

- Information Management application for paying customers.
- Specialized software to interface with:
  - Customers.
  - Stock exchange.
  - Customer’s bank.

Some more terms

**Transaction Processing Systems** record and process data from business transactions.

**Batch Processing** - transactions are accumulated over a period of time and processed periodically.

In **Online Transaction Processing (OLTP)**, transactions are processed immediately.

Some More Terms

- A **workflow** application supports ongoing repetitive tasks.
  - Example: An application that passes a case summary of a customer from customer service to tech support.
So what exactly is ERP??

Early MRP

- MRP (Material or Manufacturing Resource Planning)
  - Take:
    - Product Demand forecasts
    - Inventory Balances
    - Replenishment Lead Times
  - Develop a Production schedule for a single plant
  - At this Point, it is a planning tool

Later on More capabilities added

- Order Processing
- Product Costing

The planning tool begins to take more and more of an active role in the business processes.

A desire to Link Across Functional Departments of firm

- Each functional department had its own legacy application
  - Programmed in different languages
  - Different Data formats
- Often some data was shared between departments by duplicating it.

MRP evolves into ERP

- A common software architecture with modules to support different business functions.
  - Accounting, finance, sales, HRM, material management, etc...
- Key features:
  - Multi-functional
  - Integrated
  - Modular

ERP Overview
How would you design an ERP?

- Design a user interface for each module
  - Ask user to fill in certain “fields” at particular times.
  - Set up a sequence of events
    - When the sales department enters an order, that event triggers an event at the manufacturing department.

- But by doing this, aren’t we presuming a particular business process?