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
### Database Tutorials

#### October

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All tutorials in Ming Ong PC lab in Merrill Room 103
Project proposals due on 10/18!!
- 2-3 pages
- Give a plan what you will cover in report
- Cite some references, and show that you have started your research!

Remember references must be cited in the body of the text with footnotes or end notes.
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.
Examples

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

![ERP Overview Diagram]

- Human Resources
- Financials & Accounting
- Sales & Distribution
- Inventory & Manufacturing
- Suppliers

ARCHITECTURE
INDUSTRY SOLUTIONS
ERP

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?