Types of Information Systems

- Transaction Process Systems (TPS)
- Management Information Systems (MIS)
- Decision Support Systems (DSS)
- Executive Information Systems (EIS)
- Expert Systems
- Communications and collaboration Systems
- Office Automation Systems

Transaction Process Systems (TPS)

- Capture and process data about business transactions

Airline Reservations

Bank deposit and withdrawal

Management Information System (MIS)

- Designed for management oriented reporting
- Based on transaction processing and operations of the organization

Production scheduling

Inventory reporting

Decision Support System (DSS)

- Helps to identify decision making opportunities
- Provides information to help make decisions
- Provides its user with decision-oriented information whenever decision making situation arises.

Executive Information Systems

- Designed for top-level managers.
- Supports the planning and assessment needs of executive managers.
- Integrates data from all over the organization into “at-a-glance” graphical indicators and controls.

Expert Systems

- An expert system is a programmed decision making information system.
- Capture and reproduce the knowledge and expertise of a decision maker
- Simulates the “thinking” of the expert.

Communications and Collaboration Systems

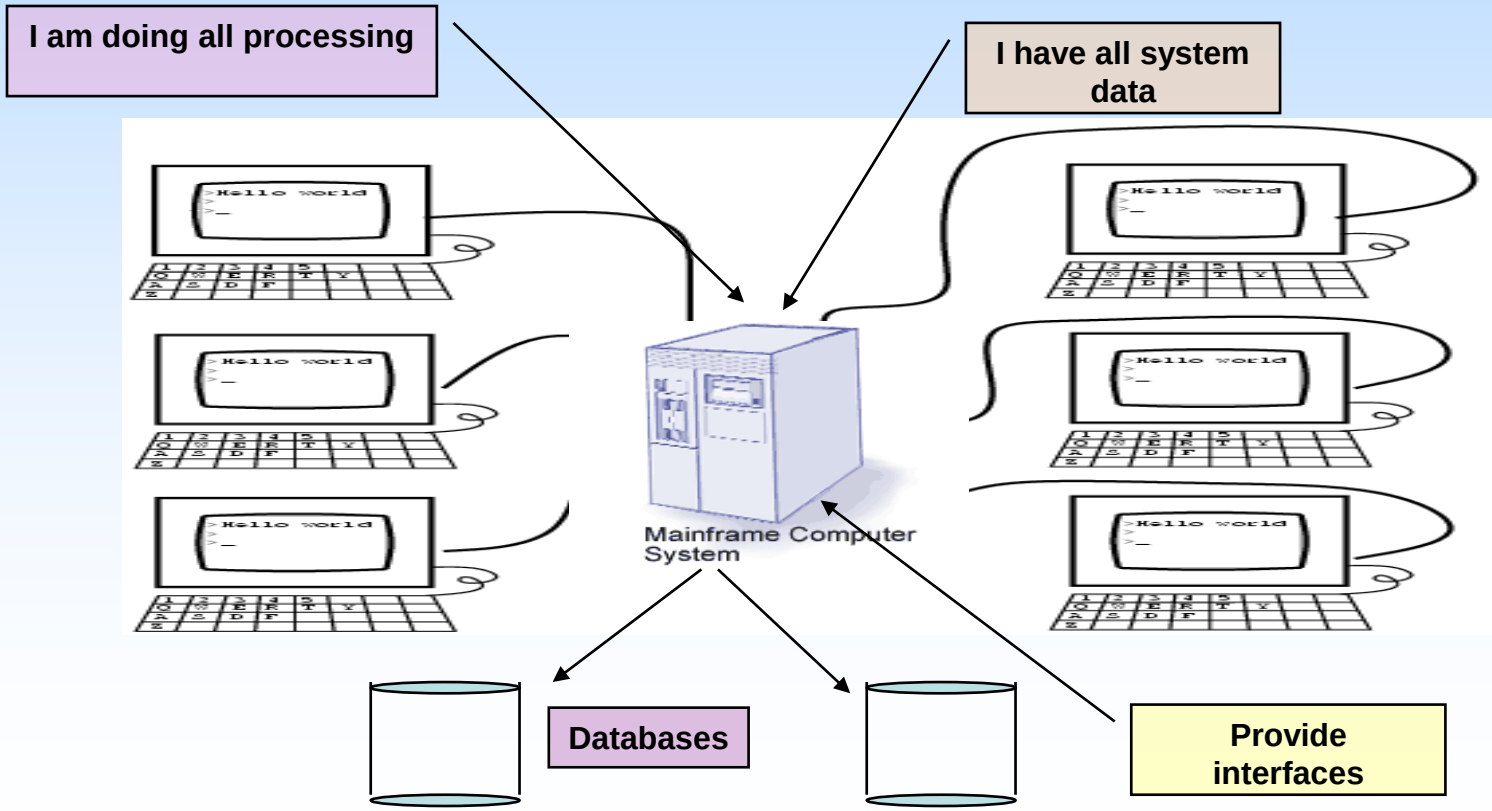
- Enables more effective communications between
  - Workers
  - Partners
  - Customers
  - Suppliers
- Enhance their ability to collaborate

Office Automation Systems

- Supports the wide range of business office activities
- Provides improved work flow between workers.

Architecture based classification of Information Systems

- **Centralized Systems**
  - All the components are hosted by a central, multi user system
  - User interact with the host computer via terminals
  - Virtually all of the actual processing and work is done on the host computer.



Architecture based classification of Information Systems

Distributed Systems

- Components are distributed across multiple locations and computer networks

- Processing work load required to support these components are distributed across multiple computers on the net work.

-- Components of an information system
-- Processing workload required to support the components

Distributed to multiple locations

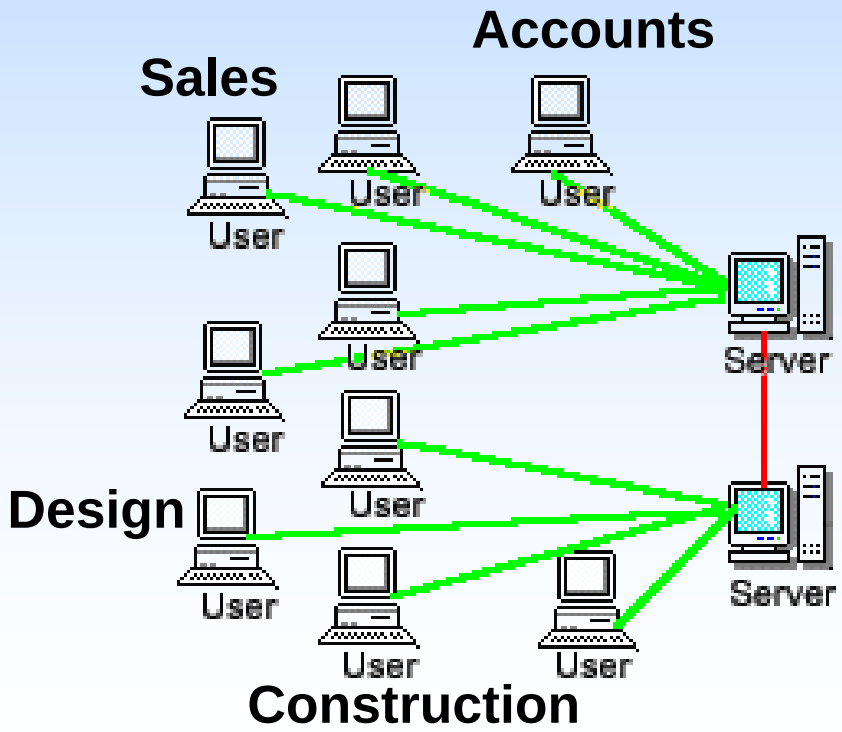
Distributed Systems

1. Client Server Systems

The presentation, presentation logic, application logic, data manipulation and data layers are distributed between client PC's and one or more servers.

Client Computers :

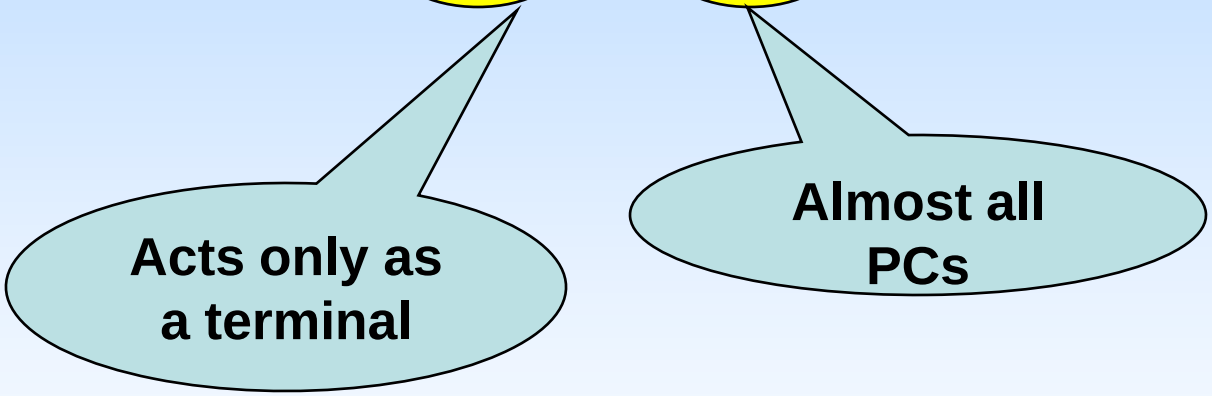
Any combination of personal Computers or Workstations, "sometimes connected"



Distributed Systems

Client Server Systems cont..

Clients may be thin or flat



e.g. Windows terminal

Distributed Systems

2. File server Architecture

- A LAN (Local area network) based solution
- A server computer hosts only the data layer
- All other layers are implemented on the client PC.
- Practical only for small database applications shared by relatively few users

Distributed Systems

3. Internet Based Architecture

Network Computing Systems

- Presentation and presentation logic layers are implemented in a client side web browser
- The presentation logic layer then connects to the application logic layer that run on an application server,
- Subsequently connects to the database server/s

Processing Types

1. Batch Processing

- Data about many transactions is collected as a single file which is then processed
  - The data entered is collected into files called batches.
  - Each file is processed as a batch of many transactions.

Super market-Batch processing

Processing Types

2. Online Processing

The data about a single transaction is processed immediately.

ATM-Real time processing