Fundamental Principle

- Organizations use technology to accomplish a purpose, to pursue their VISION and achieve their goals

- Technology should never be used simply for the sake of using that technology
  - It is new
  - It is fun
  - It looks good on my resume

- Therefore, the most successful technical people are those who best understand the BUSINESS, and can use technology to solve problems for the business and help the organization achieve its goals.

HW # 4 - Tips and guidelines

- As you review the case study
  - Focus on understanding BUSINESS PROCESSES
  - For each business process, consider the activities that affect the data involved in that business process

- Consider Eden's business processes – How do they make a profit?
  - Retail Sales, including delivery
    - Plants
    - Landscaping Materials
    - In-Store purchases
  - Landscaping jobs
    - Bids
    - Scheduling the job
      - Workers, Materials, Plants, Tools, Equipment

HW # 4 - Tips and guidelines

- Running the Business
  - Accounting
  - Payroll & HR
  - Training Workers
  - Billing customers
  - Staffing
  - Receiving payments/cash
  - Inventory
    - How much do we have now?   The "physical" inventory.
    - What do we need to order?
    - Order from whom? When is it needed?
    - The movement of inventory

HW # 4 - Tips and guidelines

- IN SCOPE: For this assignment, you must focus on the Inventory Business processes that affect INVENTORY
    - Live Stock
    - Landscaping materials

OUT OF SCOPE

- – Retail store inventory is OUT OF SCOPE
- – Landscaping tools and equipment is OUT OF SCOPE
- – Payroll, HR, Accounting, Billing, Cash/Receivables, Payables are all OUT OF SCOPE

Homework 4

HW # 4 - Tips and guidelines

- Inventory Business processes

  – What business activities ADD new stuff to inventory? When?
    - Incoming Shipments from Suppliers
      – Shipments must first be ORDERED. How much? From whom?
    - Customer Returns

  – What business activities REDUCE existing inventory? When?
    - Loading the truck for Landscaping Jobs
    - Loading the truck for Deliveries
    - Customer Returns
    - Retail Sales in the Yard
      – Live Stock
      – Materials

HW # 4 - Tips and guidelines

- Inventory Business processes

    – What business activities INQUIRY existing inventory? When?
        - Scheduling Landscaping Jobs
        - Retail sales in yard
        - Physical Inventory

HW # 4 - Tips and guidelines

- Designing the Database
  - Set your SCOPE by business process
  - Review the customer's processes to understand TOUCH POINTS
    - WHEN does this business process TOUCH the database? In what way?
    - Build a CRUD matrix
      - CREATE, READ, UPDATE, DELETE

Business Process	CREATE	READ	UPDATE	DELETE
Receive Incoming Shipments	X	X	X	
Take a physical Inventory		X	X	X
Place orders for products	X	X	X	
Plan & Schedule Jobs		X	X	
Process a RETURN	X	X	X	X
Load the Truck for Jobs		X	X	
Load the Truck for Deliveries		X	X	
Retail Sales from Yard		X	X	

HW # 4 - Tips and guidelines

- Designing the Database – Once SCOPE is set:
  - Review the customer screens, forms, documents used in the process
  - Identify all ENTITIES - Create Meaningful names as needed
  - Identify all ATTRIBUTES – Data names, types, lengths
  - Normalize as needed
    - Define a PRIMARY KEY
    - If none exists, create a surrogate
    - Define FOREIGN KEY relationships
  - Draw the Data Model
  - Review the Data Model
    - Does the MODEL support the BUSINESS PROCESS?
  - Generate DDL
  - Create the Database
  - No loading of data is necessary at this point…

HW # 4 - Tips and guidelines

- Invoice Detail points to a Service or Material or LiveStock
- Can use a TYPE CODE to differentiate
- Material and LiveStock share all the same columns, so you may combine them
- Suppliers supply Materials and/or LiveStock
- Suppliers ship Materials and/or LiveStock
- Orders contain Materials and/or LiveStock
  – Quantity & Price
- Shipments contain Materials and/or LiveStock
  – Quantity & Price