Chapter 7 Review Questions

1. **How do data, information, and knowledge differ?**

Data are just raw facts with no meaning, information which is obtain from data processing is data that has a meaning in a specific context, and knowledge is information with direction or intent usually derived from strategies or objectives

1. **Describe the three-level database concept. What are its advantages?**

* Level 1 is called the external, conceptual or local level; it contains the various user views and each application program has its own view. This level does not concern how the data are physically stored or what data are used by other applications
* Level 2 is called the logical or enterprise data level, it includes all the organization’s data under the control of the DBA (data base administrator), data relationships are represented at this level by the DBM
* Level 3 is called the physical or storage level; it specifies the way the data are physically stored, it has the implementation data like pointers and flags which are only for use of the DBM

The advantages of this are that Level 2 absorbs changes made at Level 3, like using a new physical storage method, therefore individual application programs in Level 1 do not need to change when the physical layer changes, also data only needs to be stored once in Level 2 and the different programs can draw on it and vary the relationship among the data

1. **What are four database models?**

* Hierarchical Model: Develop in the 1960s to manage large amounts of data for manufacturing projects, Basic logic structure is represented by and upside-down tree, it uses the terminology parent and child to represent relationship, each child can have only one parent
* Network Model: Created to represent complex data relationships more effectively than the hierarchical model, network model improves database performance and imposes a database standard, it resembles hierarchical model however, a record may have more than one parent
* Relational Model: Develop in 1970 an the main idea is to find a way to store data in a form that is intuitive to the users while improving the database management efficiency, Relational model performs same functions provided by hierarchical model but hides complexity from users, it stores data in tables like spreadsheets that represent entities, each row represent an entity and each column represent an attribute of the entities.
* Object-Oriented Database Model: Data and relationships are contained in a single structure known as an object, each object contains a piece of data, methods or procedures that can be perform work on that data, attributes describing the data, and relationships between this object and others; also objects are important because they can be used with any type of data like video clips, photos or segment of music

1. **What is the main problem in managing data?**

The main problem is inconsistent data definitions, due to expediency system designers have sought the necessary data either form the cheapest source or from a politically expedient source, in other words, using that from existing files and adding other new data. This creates problems like data showing in different files with different names or the same name for different data items, or the same data in different files with different update cycles.

1. **Why was ERP a driving force in getting data into shape in many companies?**

ERP (Enterprise Resource Planning) is a multi-module application software that seeks to integrate all data and business processes of an organization into a corporate wide unified system. It has been the main driving force to getting data into shape in many companies because it replaces many independent applications within the organization, thus avoiding the need for creating external interfaces to allow these applications to communicate.

1. **What are the four types of information?**

* Internal Record-based: consists of Transactions processing and Organizational units
* Internal Document-based: consists of Corporate memos, letters, reports, forms, email, etc
* External Record-based: Accessed through public databases
* External Document-based: Consists of Public literature, News services, catalogs and indexes, subscriptions, purchased reports, Internet (Wikipedia)

1. **What is a data Warehouse?**

Data warehouse is a database where the data are generally obtained periodically form transaction databases. The warehouse represents a snapshot at a point in time, they are not updated as events occur, only at specific points in time, also they are used with tools for exploring the data, the simplest tools generate preformatted reports or permit ad hoc queries. The most common type of data in a warehouse is customer data which is used to discover how to more effectively market to current customers as well as noncustomers with the same characteristics. Data warehouses are seen as strategic assets that can yield new insights into customer behavior, internal operations, product mixes, and the like.

1. **What is metadata?**

Metadata is just data about data, it explains the meaning of each data element, how each element relates to other elements, who can access each element, and so on. Metadata sets the standard without it, data from different legacy systems cannot be reconciled, so the data will not be clean in other words comparable, without comparable data, the warehouse is not much use.

1. **Why is O&M’s WISDOM service valuable to suppliers?**

It has become valuable because it allows suppliers to use OM’s warehouse to run queries and reports to watch their products move out to consumers, they can analyze their market share in specific regions, analyze product shelf life, coordinate shipping from several location, see on-contract purchasing (and help customers increase the levels), analyze drop shipments, and so forth.

1. **What three electronic document management applications generate value?**

* Improving The Publishing Process: Technology enables a major restructuring of the process of publishing and distributing paper documents
* Supporting Organizational Processes: Documents are still a vehicle for accomplishing many processes in organizations, the documents are primarily forms that flow through the organization carrying info, accumulating input and approval form a sequence of people
* Supporting Communications Among People and Groups: The Value of documents is that they transfer information across time and space. Although the internet could handle such communication, EDM can be used to facilitate such communications among people and groups specially when all members of a group do not have internet access, or do not use it frequently.

1. **Give the four goals of Tapiola Insurance Group’s EDM project.**
2. To reduce cost
3. To stop using preprinted forms
4. To give Tapiola marketing people new ways to advertise insurance products by making computer generated letters to customers more flexible
5. To make Tapiola “the most personal insurance company in Finland
6. **Why is XML important?**

XLM is important because it is used to put tags on data that give that data meaning, in other words, XML moves web content from being in a human-only readable format to being in a computer-readable format. Thus, the content can be passed to back-end transaction processing systems and cause an action to take place, like ordering a book or configuring a recently ordered computer.

1. **What are the three phases of the content management life cycle, according to Tucker, and what are the goals of each one?**

* Content creation and acquisition: Goal is to focus on creating or acquire content quality
* Content administration and safeguarding: The emphasis in this phase is efficiency, the goal is to achieve the most with the least effort
* Content deployment and presentation: The third phase is the output phase, distributing content to Web site visitors. The goal in this phase is effectiveness

1. **Why did Eastman Chemical Company redesign its Web site?**

Because the old web site posted excess content, and had inconsistent navigation making it difficult to find the desired information. Also they wanted to take the customer viewpoint and become more customer focused.

1. **What are the Weblog guidelines Groove Networks gives its employees?**

* Make it clear to your readers that the view you express are yours alone and that they do not necessarily reflect the views of the company
* Take care not to disclose any information that is confidential or proprietary to the company or to any third party that has disclosed information to us
* Please remember that your employment documents give the company certain rights with respect to concepts and developments you produce that are related to the company’s business
* Since your site is a public space, we hope you will be as respectful to the company, our employees, our customers, our partners and affiliates, and others