Chapter Summary

Chapter 3: Data Management: Data, Databases, and Warehousing

Script based upon Chapter 3 Instructors Manual:

ISBN: 0471787124

Narration *(561 Words)*

This is a summary of chapter 3 taken from the textbook, Information Technology for Management: Transforming Organizations in the Digital Economy. The chapter is titled, Data Management: Data, Database, and Warehousing.

The primary objective of this chapter is to recognize the importance of data, the management issues that relate to it, and its life cycle. Other objectives include relating data management to multimedia and document management, explaining the concept of data warehousing, data mining, analytical processing, and knowledge discovery management.

Let’s review each section of the chapter.

The chapter opens with a case study. Like all the other cases in the textbook, it illustrates a real problem or opportunity that an
organization has faced. This case, *Finding Diamonds by Data Mining at Harrah’s*, shows how Harrah’s Entertainment turned to technology-based CRM to differentiate itself from other casinos. Harrah’s used data mining to study how customers responded to its incentive programs. The casino was able to understand how to motivate profitable return customers. The case then outlines the solution Harrah’s adopted, the resulting benefits, and some lessons you can learn from their experience.

**The first section** focuses on *Data Management as a Critical Success Factor*. This section illustrates the importance of managing data and the difficulties involved. It explains why managing data is a critical success factor. It also explores the data life cycle process, the different types of data, and document management issues.

**The second section**, *File Management*, focuses on the hierarchical nature of content managed in a database.

**In the third section**, *Database Management Systems*, you look at the program or group of programs that provide access to a database. You will investigate the interfaces between applications, physical data files, and the information needs of the user.

**The fourth section focuses on** *Creating Databases*: from the initial stages of conception, through logical design and analysis, to final construction of the database.
The fifth section, *Data Warehousing*, contrasts transaction processing and analytical processing, and develops the concept of a data warehouse, illustrating its characteristics, cost, benefits, and architecture. You are introduced to data marts, operational data stores, and multidimensional databases in this section.

The sixth section *Marketing Databases in Action*, offers a brief description of marketing databases, and describes how data warehouses, their extensions, and data mining are used and the role they play in new marketing strategies.

The seventh and final section of the chapter covers *Web-based Data Management Systems* including corporate portals, Web-based data acquisition, clickstream data warehouses, and intelligent data warehouse Web-based agents. The chapter concludes with a selection of managerial issues.

Do read the sidebars called “A Closer Look”. You will find cases in the sidebar called “IT at Work.” You may be familiar with many of the technologies, and that’s fine. Pay particular attention to the managerial issues at the end of the chapter.

In summary, this chapter is about data and how to manage data to support decision-making. As the volume of available data is growing, it becomes increasingly important to acquire and store it appropriately, and to share that data all across the enterprise. This chapter discusses various methods to accomplish this such as data warehousing, data mining, knowledge management, and online analysis processing. This
chapter also considers the various issues and benefits of using various approaches to data management.

This concludes the summary of Chapter 3.