Lecture Summary

Keywords:						
• Databases						
• DBMS						
• Database						
• System						
Summary:						
Lecture 1: Introduction to Database						
Introduction to Databases						
CT042-3-1-IDB						
SLIDE 2Module Code & Module Title Slide Title						
Data vs Information						

• Database vs DBMS

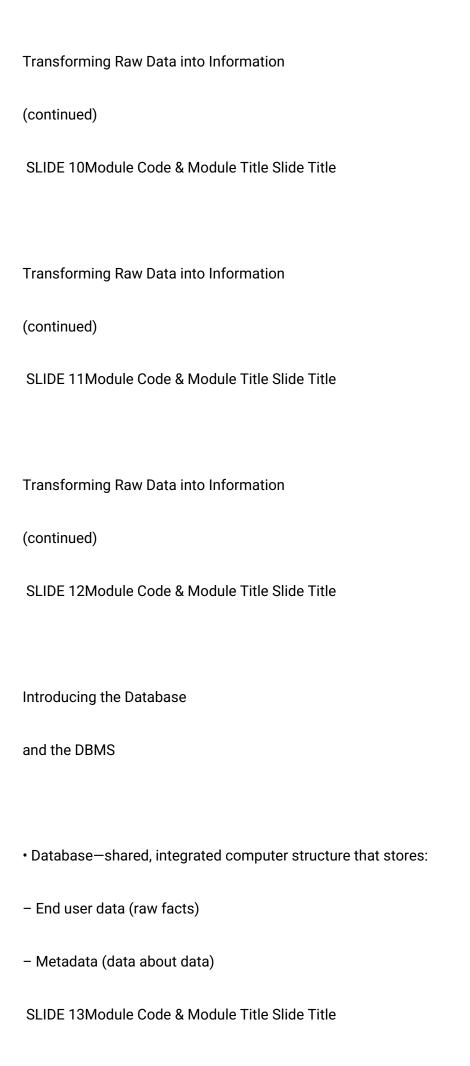
• Types of database							
Topic & Structure of The Lesson							
SLIDE 3Module Code & Module Title Slide Title							
• At the end of this topic, You should be able to							
– Explain the difference between data and information							
– Describe the difference between database and DBMS							
- State different types of database							
Learning Outcomes							
SLIDE 4Module Code & Module Title Slide Title							
Key Terms You Must Be Able To Use							
• If you have mastered this topic, you should be able to use the following terms							
correctly in							
your assignments and exams:							
– Data							

- Information
- Database
– Database Management System
SLIDE 5Module Code & Module Title Slide Title
In this chapter, you will learn:
The difference between data and information
• What a database is, what the different types of databases are, and why they
are
valuable assets for decision making
The importance of database design
How modern databases evolved from file systems
SLIDE 6Module Code & Module Title Slide Title
In this chapter, you will learn (continued):
About flaws in file system data management

 \bullet What the database system's main components are and how a database system

The main functions of a database management system (DBMS)							
SLIDE 7Module Code & Module Title Slide Title							
Data vs							
Information							
• Data:							
- Raw facts; building blocks of information							
- Unprocessed information							
• Information:							
– Data processed to reveal meaning							
Accurate, relevant, and timely information is key to good decision making							
Good decision making is the key to survival in a global environment							
SLIDE 8Module Code & Module Title Slide Title							
Transforming Raw Data into Information							
SLIDE 9Module Code & Module Title Slide Title							

differs from a file system



Introducing the Database and the DBMS						
(continued)						
DBMS (database management system):						
– Collection of programs that manages database structure and controls access						
to data						
– Possible to share data among multiple applications or users						
– Makes data management more efficient and effective						
SLIDE 14Module Code & Module Title Slide Title						
Role and Advantages of the DBMS (continued)						
• End users have better access to more and better-managed data						
- Promotes integrated view of organization's operations						
– Probability of data inconsistency is greatly reduced						
– Possible to produce quick answers to ad hoc queries						
SLIDE 15Module Code & Module Title Slide Title						

Role and Advantages of the DBMS					
(continued)					
SLIDE 16Module Code & Module Title Slide Title					
Types of Databases					
• Single-user:					
– Supports only one user at a time					
• Desktop:					
– Single-user database running on a personal computer					
• Multi-user:					
– Supports multiple users at the same time					
SLIDE 17Module Code & Module Title Slide Title					
Types of Databases (continued)					
• Workgroup:					
– Multi-user database that supports a small group of users or a single					
department					

• Enterprise:
– Multi-user database that supports a large group of users or an entire
organization
SLIDE 18Module Code & Module Title Slide Title
Types of Databases (continued)
Can be classified by location:
Centralized:
- Supports data located at a single site
• Distributed:
- Supports data distributed across several sites
SLIDE 19Module Code & Module Title Slide Title
Types of Databases (continued)
Can be classified by use:
Transactional (or production):
- Supports a company's day-to-day operations

• Data warehouse:
- Stores data used to generate information
required to make tactical or strategic decisions
– Often used to store historical data
- Structure is quite different
SLIDE 20Module Code & Module Title Slide Title
What is the difference between data and information
Describe the difference between database and DBMS
Briefly explain 3 types of database
Quick Review Question
SLIDE 21Module Code & Module Title Slide Title
Data are raw facts, information is processed data to reveal meaning
Database store shared, integrated data
DBMS is a collection of programs that manages database structure and controls
access to data
Database can be classified by usage or location

Summary of Main Teaching Points
SLIDE 22Module Code & Module Title Slide Title
Question and Answer Session
Q & A
SLIDE 23Module Code & Module Title Slide Title
• File System and its problems
• DBMS functions
What we will cover next
esources:

Re

- https://en.wikipedia.org/wiki/Databases
- https://en.wikipedia.org/wiki/DBMS
- https://en.wikipedia.org/wiki/Database
- https://en.wikipedia.org/wiki/System