The Traditional Approach

- Data redundancy
- Program-data dependence
- Data integrity

Database Approach

Advantages and Disadvantages of the Database Approach

→ pp. 185 / 186
The Hierarchy of Data

Data Entities, Attributes, and Keys

Entity-Relationship (ER) Diagrams

Elements of the ERM

Blackboard Picture
Relational Models

Database Management Systems (DBMSs)
- Provide a user view
- Create and modify the database
- Store and retrieve data
- Manipulate data
- Produce reports

Open Database Connectivity (ODBC)
- “I need all addresses in the ZIP range 32xxx-33000”

Storing and Retrieving Data

Structured Query Language
Summary

• Data - one of the most valuable resources a firm possesses

• Entity - a generalized class of objects for which data is collected, stored, and maintained

• DBMS - a group of programs used as an interface between a database and application programs

• Traditional on-line transaction processing (OLTP) - do not support the types of data analysis needed today

Thank you!

The slides will be available on the internet at
http://ruby.fgcu.edu/courses/mhepp/ (-> CRN10033)