

# CHAPTER 12 LECTURE OUTLINE

### **Computer Science Illuminated, Seventh Edition**

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## **Information Systems**

#### 12.1 Managing Information

#### 12.2 Spreadsheets

**Spreadsheet Formulas** 

**Circular References** 

**Spreadsheet Analysis** 

#### 12.3 Database Management Systems

The Relational Model

Relationships

**Structured Query Language** 

**Database Design** 

12.4 E-Commerce

12.5 Big Data

**Summary** 

**Ethical Issues: Politics and the Internet** 

**Key Terms** 

**Exercises** 

**Thought Questions**