

- 1  Chapter 14  
Information System Development
- 2  Chapter 14 Objectives
- 3  What is the System Development Life Cycle?
  - 1 **What is an information system (IS)?**
  - 2 ❖ Set of hardware, software, data, people, and procedures that work together to produce information
- 4  What is the System Development Life Cycle?  
**What is the system development life cycle (SDLC)?**
- 5  What is the System Development Life Cycle?
  - 1 **What are guidelines for system development?**
  - 2 ❖ Divide activities or tasks into phases  
❖ Involve users  
❖ Develop standards
    - Sets of rules and procedures company expects employees to accept and follow
- 6  What is the System Development Life Cycle?  
**Who participates in the system development life cycle?**
- 7  What is the System Development Life Cycle?
  - 1 **What is a systems analyst?**
  - 2 ❖ Responsible for designing and developing information system  
❖ Liaison between users and IT professionals  
❖ Converts user requests into technical specifications
- 8  What is the System Development Life Cycle?
  - 1 **What is the project team?**
  - 2 ❖ Formed to work on project from beginning to end  
❖ Consists of users, systems analyst, and other IT professionals
- 9  What is the System Development Life Cycle?
  - 1 **What is project management?**
  - 2 ❖ Process of planning, scheduling, and then controlling activities during SDLC
- 10  What is the System Development Life Cycle?
  - 1 **What is a Gantt chart?**
  - 2 ❖ Popular tool used to plan and schedule time relationships among project activities
- 11  What is the System Development Life Cycle?
  - 1 **What is feasibility?**

- 2 ✦ **Measure of how suitable system development will be to company**
- 12  What is the System Development Life Cycle?  
**What are six data and information gathering techniques?**
- 13  What Initiates the System Development Life Cycle?  
**What are some reasons to create or modify an information system?**
- 14  What Initiates the System Development Life Cycle?  
 1 **What is a request for system services?**  
 2 ✦ **Users write formal request for new or modified information system**  
 ✦ **Also called project request**
- 15  Planning Phase  
 1 **What is the planning phase?**  
 2 ✦ **Begins when steering committee receives project request**  
 ✦ **Function of committee:**
  - **Review and approve project**
  - **Prioritize requests**
  - **Allocate resources**
  - **Form project development team**
- 16  Analysis Phase  
 1 **What is the analysis phase?**  
 2 ✦ **Consists of two major tasks**
- 17  Analysis Phase  
 1 **What is structured analysis and design ?**  
 2 ✦ **Technique that attempts to address problem by using graphics and other tools**  
 ✦ **Used to document findings in way everyone can understand**
- 18  Analysis Phase  
 1 **What is an entity-relationship diagram (ERD)?**  
 2 ✦ **Tool that graphically shows connections between entities in system**
- 19  Analysis Phase  
 1 **What is a data flow diagram (DFD)?**  
 2 ✦ **Tool that graphically shows flow of data in system**
- 20  Analysis Phase  
 1 **What is a project dictionary ?**  
 2 ✦ **Documentation and deliverables of project**  
 ✦ **Helps keep track of huge amount of details in system**

- 21  Analysis Phase
- 1 **What is structured English?**
  - 2 ❖ Used to explain details of process in project dictionary
- 22  Analysis Phase
- 1 **What is a decision table?**
  - 2 ❖ Lists variety of conditions and actions that correspond to each condition
- 23  Analysis Phase
- 1 **What is a decision tree?**
  - 2 ❖ Diagram that shows conditions and actions graphically
- 24  Analysis Phase
- 1 **What is a data dictionary?**
  - 2 ❖ Stores name, description, and other details about each data item
- 25  Analysis Phase
- 1 **What is the system proposal?**
  - 2 ❖ Assesses feasibility of each alternative solution  
❖ At conclusion of analysis phase, system proposal presented to steering committee for approval
- 26  Design Phase
- 1 **What is the design phase?**
  - 2 ❖ Consists of two major activities
    - Acquire hardware and software
    - Develop all details of new or modified information system
- 27  Design Phase
- 1 **What is needed to acquire new hardware and software?**
  - 2 ❖ Identify all hardware and software requirements of new or modified system
- 28  Design Phase
- What are three basic documents used to summarize technical specifications?**
- 29  Design Phase
- 1 **What is a turnkey solution?**
  - 2 ❖ Complete system provided by value-added reseller
- 30  Design Phase
- 1 **What is detailed design?**
  - 2 ❖ Develop detailed design specifications for components in proposed solution  
❖ Sometimes called physical design
- 31  Design Phase
- 1 **What is a system flowchart?**

- 2 ✦ Documents relationships among programs in process
  - ✦ Shows how other elements of system interact with major process
- 32  Design Phase
  - 1 **What is a prototype?**
  - 2 ✦ Working model of proposed system
- 33  Design Phase
  - 1 **What is computer-aided software engineering (CASE)?**
  - 2 ✦ Software tools designed to support one or more SDLC activities
- 34  Design Phase
  - 1 **What is a structured walkthrough?**
  - 2 ✦ Step-by-step review by project team and users of any SDLC deliverable
  - ✦ Used to review detailed design specifications before they are given to programming team
- 35  Implementation Phase
  - 1 **What is the implementation phase?**
  - 2 ✦ Purpose is to construct, or build, new or modified system and then deliver it to users
- 36  Implementation Phase
  - 1 **What is the program development life cycle (PDLC)?**
  - 2 ✦ Programmers write programs as per specifications
  - ✦ They follow an organized set of activities known as PDLC
- 37  Implementation Phase
  - What are the three types of tests performed by system developers?**
- 38  Implementation Phase
  - 1 **What is training?**
  - 2 ✦ Showing users exactly how they will use new hardware and software in system
- 39  Implementation Phase
  - 1 **What are conversion strategies?**
  - 2 ✦ Used to change from old system to new system
- 40  Support Phase
  - 1 **What is the support phase?**
  - 2 ✦ Provides ongoing assistance after system is implemented
- 41  Summary of Information System Development
  - ✦ What is the system development life cycle?
  - ✦ What initiates the system development life cycle?
  - ✦ Planning phase
  - ✦ Analysis phase

- ❖ **Design phase**
- ❖ **Implementation phase**
- ❖ **Support phase**