SCSD2613
System Analysis and Design

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TOPIC VI
Systems Implementation
Part One: Introduction to System Implementation

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update: August 2019 (sharinhh)

OBJECTIVES

- Describe the process of coding, testing, and converting an organizational information system and outline the deliverables and outcomes of the process.
- Apply four installation strategies: direct, parallel, single-location, and phased installation.
- List the deliverables for documenting the system and for training and supporting users.
- Explain why system implementation sometimes fails.
- Describe the threats to system security and remedies that can be applied.

MAJOR TOPICS

SYSTEM IMPLEMENTATION	• System implementation process
SYSTEM CONSTRUCTION (CODING) & TESTING	• System construction • Types of system testing
INSTALLATION	• Types of system installation • Planning the installation
DOCUMENTING THE SYSTEM	• Generic guidelines
TRAINING AND SUPPORT	• Types of training • Support
ORGANIZATIONAL ISSUES	• Factors • Security issues • Project closure

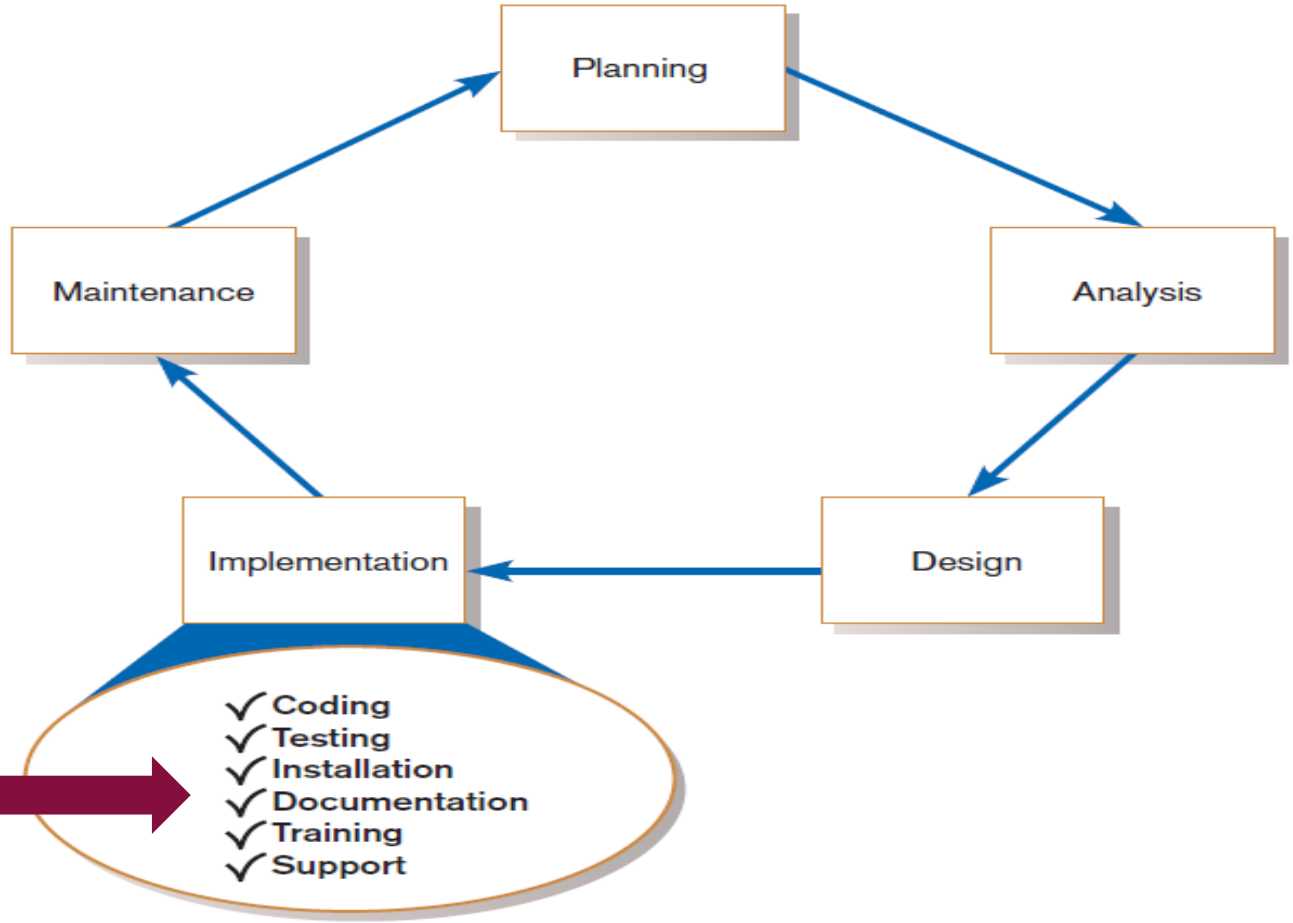
MAJOR TOPICS

SYSTEM IMPLEMENTATION

- System implementation process

RECAP: SDLC

Systems development life cycle with the implementation phase highlighted

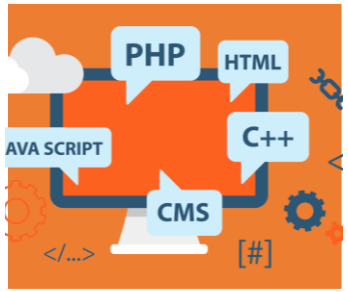


SYSTEM IMPLEMENTATION

- Purpose:
  - To convert final physical system specifications into working and reliable software
  - To document work that has been done
  - To provide help for current and future users

SYSTEM IMPLEMENTATION – MAJOR ACTIVITIES

CODING

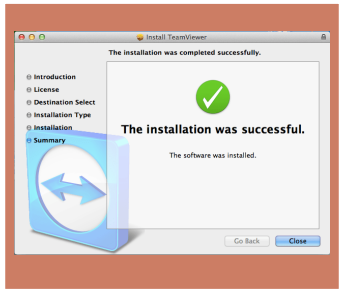


Physical design specifications are turned into working computer code.

TESTING

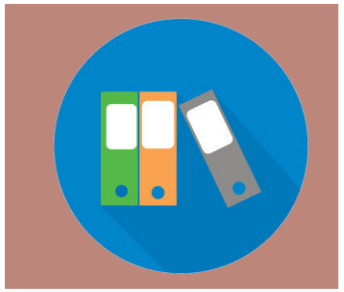
- Tests are performed using various strategies.
- Testing is performed in parallel with coding.

INSTALLATION



The current system is replaced by a new system.

DOCUMENTATION



Two audiences for final documentation:

- **Information systems personnel** who will maintain the system throughout its productive life
- People who will use the system as part of their daily lives (**system user**)

TRAINING

- Application-specific
- General for operating system and off-the-shelf software

SUPPORT

- Automating support (chatbot)
- Help desk

SYSTEM IMPLEMENTATION DELIVERABLES

TABLE 13-1 Deliverables for Coding, Testing, and Installation

1. Coding
   a. Code
   b. Program documentation
2. Testing
   a. Test scenarios (test plan) and test data
   b. Results of program and system testing
3. Installation
   a. User guides
   b. User training plan
   c. Installation and conversion plan
      i. Software and hardware installation schedule
      ii. Data conversion plan
      iii. Site and facility remodeling plan

TABLE 13-2 Deliverables for Documenting the System, Training, and Supporting Users

1. Documentation
   a. System documentation
   b. User documentation
2. User Training Plan
   a. Classes
   b. Tutorials
3. User Training Modules
   a. Training materials
   b. Computer-based training aids
4. User Support Plan
   a. Help desk
   b. Online help
   c. Bulletin boards and other support mechanisms

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Thank You

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