



Development & Management IS

Kudang B. Seminar

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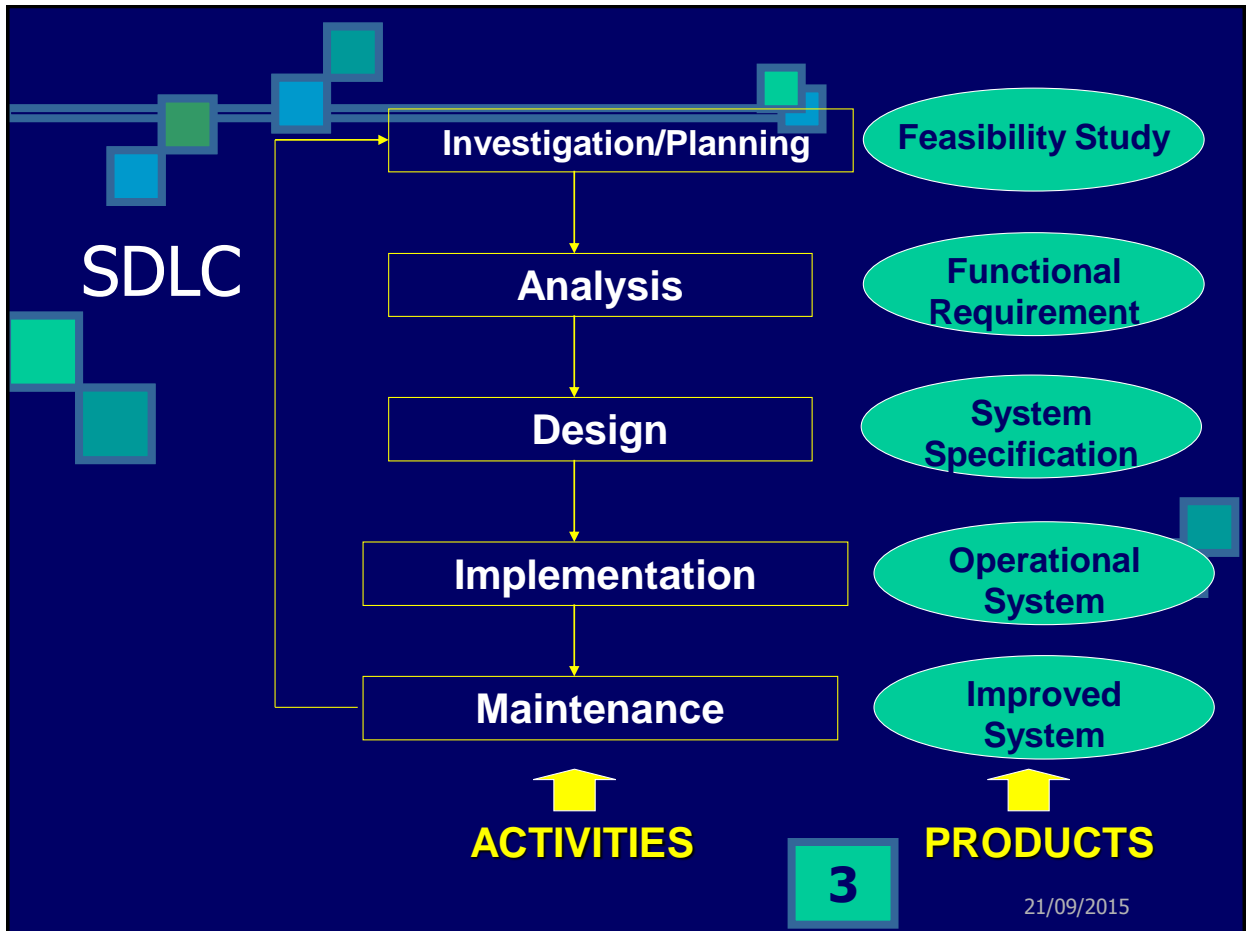


System Development Methods

- SDLC (System Development Life Cycle)
- Prototyping

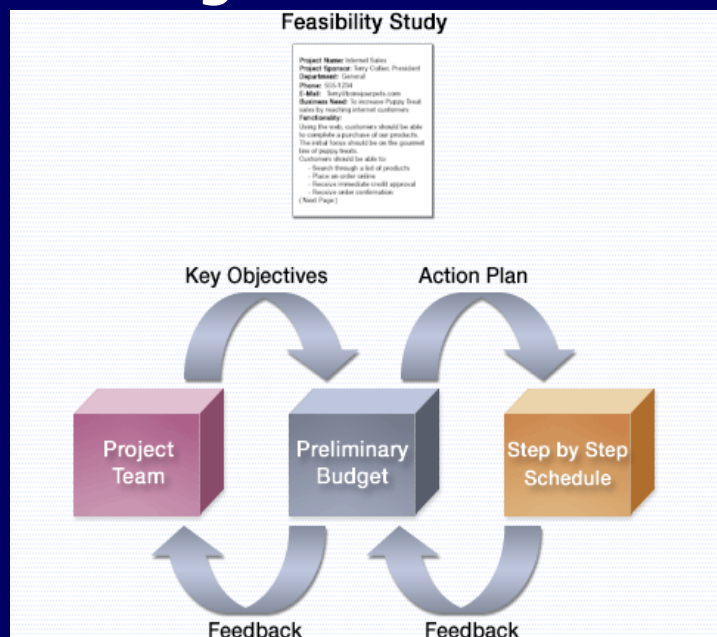
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System Investigation

- Formulate **business problem & opportunity**
- Conduct **feasibility study** on alternative solutions
- Develop **project management plan**



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System Investigation: Formulate **problem & opportunity**

- **Problem**: undesired conditions faced by users
- **Opportunity**: available solution alternatives



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System Investigation: Feasibility Study

- **Organizational feasibility**
- **Economic feasibility**
- **Technical feasibility**
- **Operational feasibility**
- **Benefit Analysis: *tangible & intangible benefits***

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System Analysis

- Information required by *end users*
- Organizational environment: structure, geography, rules and policies
- Existing system
- Develop functional requirements expected by end users

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System Analysis

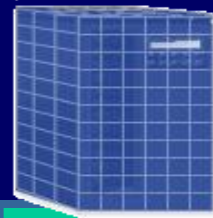


1 Understand the old system

2 Identify how the old system can be improved



3 Develop specifications for the new system





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System Design

- 
- **Develop system specification: hardware, software, brainware, netware, dataware**
 - **Information design: content, form, & time**
 - **Design user interface, style & input/output format & structure**
 - **Process design: input - output transformation**
 - **Security system**
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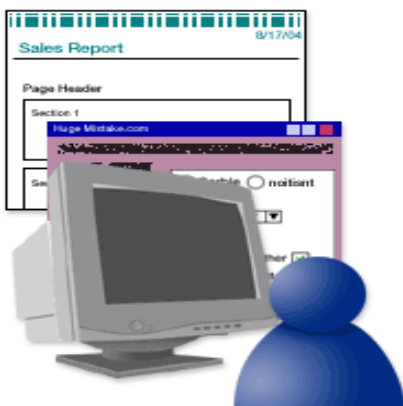


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System Design

User interface design



Data structure design



Program design



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System Implementation

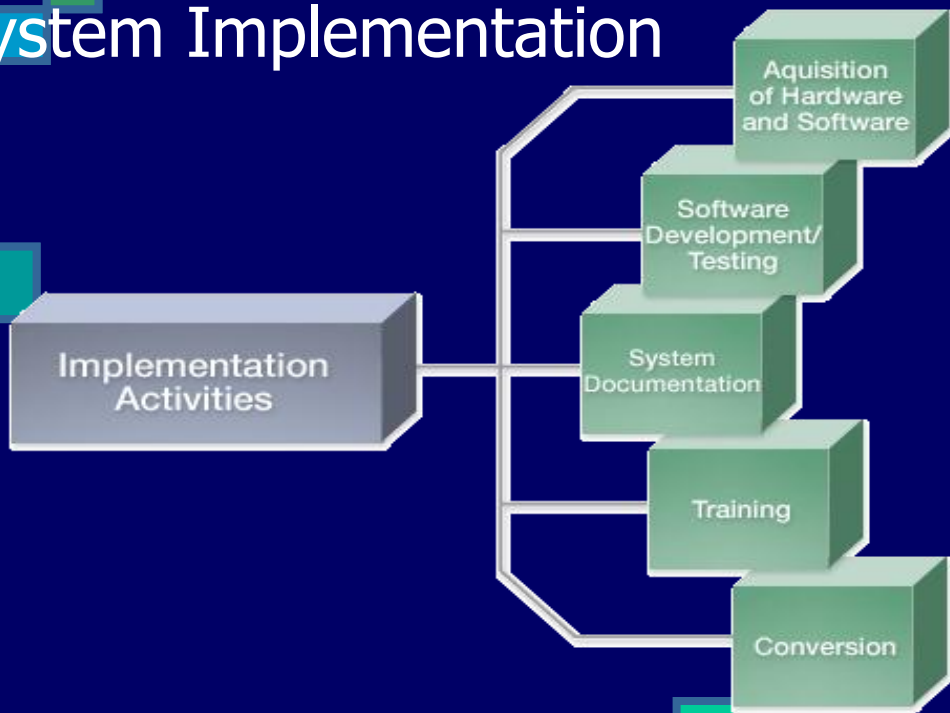
- **Procurement of hardware, software, brainware, netware, dataware**
- **Socialization of the new system**
- **Conversion from old to new system**
- **Testing**



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System Implementation



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Methods of System Conversion

Old System

Parallel

New System

Old System

Pilot

New System

Old System

Phased

New System

Old System

Plunge


New System

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System Maintenance

- Periodical evaluation and inspection
 - System Auditing
 - System modification & revision in response to changing needs & conditions
- 

**Monitoring
the System**



**System
Maintenance**



**Modifying
the System**



**Fixing
System Errors**



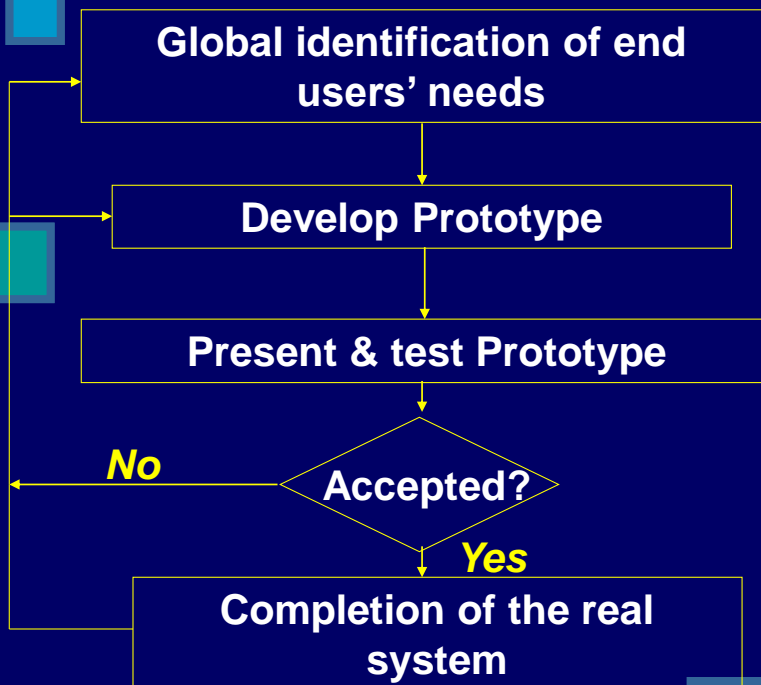
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Prototyping

- Develop *working model* called *prototype*
- Present the prototype to the end users, experts & observers to obtain feedback
- Conduct the presentation interactively & periodically until achieving users' agreement.

Prototyping Steps



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Project Management (PM)

- **Team leader must have good PM skills**
- **Major reason for IS development failures-bad PM skills**
- **Only 26% of all projects surveyed (23,000) in 1998 succeeded**
- **28% failed, 46% challenged**
- **Lower success rates for large companies**
- **Better PM skills needed**

Skills for Project Managers

- **Technology and business knowledge**
- **Judgment**
- **Negotiation**
- **Good communication**
- **Organization**

Implementation Failures

- No user involvement
- No clear objectives stated early
- No real executive sponsorship

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