**COM323**

**OBJECT ORIENTED ANALYSIS AND DESIGN**

THE SYSTEMS DEVELOPMENT LIFE CYCLE

* It is important to understand that the SDLC is a process of gradual refinement.

**Planning phase**

* It is the fundamental process of understanding why the information system should be built and determining how the the project team should go about building it.
* It has two steps:

1. *project initiation*

* The system’s business value to the organization is identified.
* The request for the new system is presented to the approval committee .

1. *Project management*

* work plan is created, which describes how the project team will go about developing the system.

**Analysis phase**

* The analysis phase answers the questions of *who will use the system* , *what the system will do*, and *where and when it will be used*.
* It has three steps:

1. Analysis strategy development

* Guides development team’s effort

1. Requirements gathering

* e.g., through interviews or questionnaires

1. system proposal documentation

* Analyses, system concept, and models are combined into a document, which is presented the project sponsor or key decision makers (e.g. Members of approval committee.)
* The system proposal is the initial deliverable that describes what business requirements the new system should meet.

**Design phase**

* Determines exactly how the system will operate
* It has four steps:

1. *The design strategy is first developed*

* It clarifies whether the system will be developed by the company’s own programmers, whether the system will be outsourced to another firm (usually a consulting firm), or whether the company will buy an existing software package.

1. *Development of the basic architecture design for the system*

* Describes the hardware, software, and network infrastructure to be used

1. *The database and file specifications are developed*

* These define exactly what data will be stored and where they will be stored.

1. *Program design is developed*

* Defines the programs that need to be written and exactly what each program will do.

**Implementation phase**

* System is actually built in this phase
* It has three steps:

1. System construction

* The system is built and tested to ensure it performs as desiged.
* Most organizations give more time to testing than to writing the programs in the first place as it one of the most critical steps in implementation.

1. System installation.

* The old system is turned off if it exists and the new system is turned on.

1. Support plan

* This plan usually includes a formal or informal post-implementation review as well as a systematic way for identifying major and minor changes needed for the system.

SYSTEM DEVELOPMENT METHODOLOGIES

* There are many ways to categorize methodologies
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