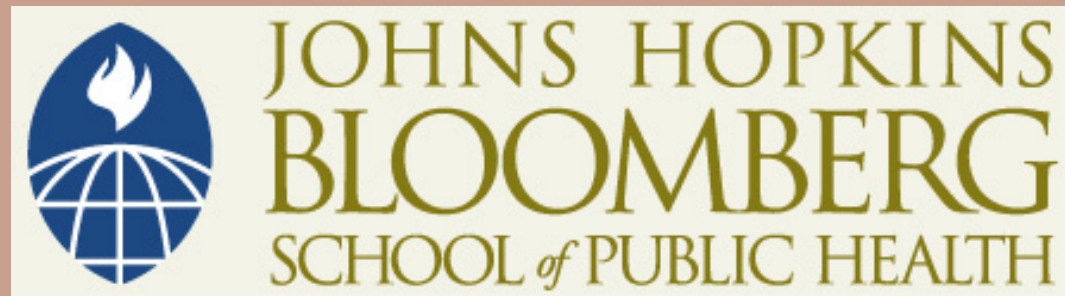


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## Section E

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### Documenting Functional Requirements

# Work Products

- A **work product** is an artifact that is produced during the development
  - For example, a document or a piece of software for the other developers or for the client
- The work product to be delivered to a client is called a **deliverable**
- Deliverables are defined prior to the start of the project and specified by a contract binding by the developer with the client

# Requirement Analysis Document

- **Requirement Analysis Document (RAD)** is a document (deliverable) that describes the system from the user's point of view
- It specifies a set of requirements for features that a system must have
- It is used as a contractual document between the developer and the client

## Work Products: Your Deliverables for this Course

- The final assignment for this course is to develop a Functional Requirements Specification Document for an information system for a selected public health problem
- This document is a shorter version of the Requirement Analysis Document (RAD)—the contractual document between the developer and the client

# RAD Outline

## **1. Introduction**

1.1 problem overview

1.2 purpose of the system

1.3 scope of the system and participants (actors)

1.4 objectives and success criteria of the project

1.5 definitions, acronyms, and abbreviations

1.6 references

## **2. Current system description**

2.1 overview

## **3. Proposed system**

3.1 overview

3.2 functional requirements

3.3 non-functional requirements

3.3.1 usability

3.3.2 reliability

3.3.3 performance

3.3.4 supportability

3.3.5 implementation

3.3.6 interface

3.3.7 packaging

3.3.8 legal

# RAD Outline

## 3.4 System models

3.4.1 scenarios

3.4.2 use case model

3.4.3 object model

3.4.4 dynamic model

3.4.5 user interface - navigational paths and screen mock-ups

## 4. Glossary



# Final Assignment

- The final assignment for this course is to develop a Functional Requirements Specification Document for an information system for a selected public health problem
- This is the shorter version of the RAD document
- The due date is two weeks after the completion of the course

# Final Assignment Outline

## 1. Introduction (problem overview)

- 1.1 goal of the proposed system
- 1.2 actors and scope of the proposed system
- 1.3 objectives and success criteria of the project

## 2. System requirements

- 2.1 functional requirements
- 2.2 non-functional requirements

## 3. System models

- 3.1 use case(s) description
- 3.2 use case models
  - 3.2.1 use case diagram,
  - 3.2.2 work flow and data flow model
- 3.3 high-level system architecture

# Final Assignment Outline

- 4. Selected standards**
- 5. Testing/evaluation plan**
- 6. Project development timeline**

# Student Presentation

- You will work in groups to develop a PowerPoint presentation on the *functional requirements for the information system for a selected public health problem*
- The class will be able to view and comment on your presentation during Session 14

# Student Presentation Outline

- Slide 1: presentation title
- Slides 2, 3: problem overview
- Slide 4: information system goals (*what*)
- Slide 5: actors (perspectives) (*who*)
- Slide 6: functional and non-functional requirements (*how*)
- Slides 7, 8: use case description and diagram
- Slide 9: work flow and data flow diagram
- Slide 10: proposed system architecture
- Slide 11: selected standards
- Slide 12: hardware and software requirements
- Slide 13: system testing/evaluation plan
- Slide 14: system development timeline and deliverables

## Resources

- Bruegge B. and Dutoit A.H. *Object-Oriented Software Engineering*. Pearson Prentice Hall. Upper Saddle River, NJ. 2nd edition. 1-172.
- Rumbaugh J, Jacobson I, Booch G. *The Unified Modeling Language Reference Manual*. (1999). Reading, Massachusetts: Addison-Wesley, 23-39.

Coming up Next ...

*Data Content Standards*