

CS708 – Software Requirement Engineering

Solution to Assignment 2

Instructions to Solve Assignments

The purpose of assignments is to give you hands on practice. It is expected that students will solve the assignments themselves. Following rules will apply during the evaluation of assignment.

- Cheating from any source will result in zero marks in the assignment.
- Any student found cheating in any two of the assignments submitted will be awarded "F" grade in the course.
- No assignment after due date will be accepted.

Question 1: Total Points (20)

Consider the following user interface requirements taken from a Library System.

1.
 - i. The user interface will be HTML. Users will access Library System via standard web browsers such as Firefox and Internet Explorer.
 - ii. Library System will be primarily an end-user system. Users will use the system within the constraints of the permissions assigned by the administrator to identify, locate, order, and receive documents.
2.
 - i. Users will communicate with Library System mainly via the HTML interface.
 - ii. User input to Library System will be via the HTML interface.
 - iii. Library System output to the user will be via the HTML interface, email, and print. The print output will mainly be documents supplied by the Library System, which, because of copyright restrictions, must be printed and deleted immediately upon receipt. The email output will be documents, messages from the system, and other output.

During requirements validation phase, in order to remove requirements problems, a review meeting is arranged and you are part of the review committee. For each requirement, stated above, you have to identify *Problem Type*, *Actual Problem* and *Recommendations* regarding particular requirement.

Solution:

Problem Type	Identified problem	Recommendation
Redundancy	Requirement 1.(i) and Requirement 2.(i) seem to say the same thing.	Remove the first sentence in Requirement 1.(i).
Conflict, Understandability	Requirement 1.(i) states that access is via standard web browser; Requirement 2.(ii) states that communication is via html.	Rewrite Requirement 2.(i) to make clear that end-users do not actually have to write html directly to communicate with the system.
Completeness	Requirement 2.(iii) states that the print output will 'mainly' be documents ..., what else might be printed? What other output will be produced.	Either remove 'mainly' or clarify other print output. Define other output.
Completeness	What versions of html and web browsers are assumed in requirements 1.(i) and 2?	Define the minimal HTML standards and the browser versions supporting that standard.

Question 2: Total Points (10+20=30)

Based on the paper "**Stakeholder Identification in the Requirements Engineering Process**", answer the following questions:

- (a) Who are stakeholders and what are different methods to identify them?
- (b) Describe the proposed approach to identify stakeholders and critically analyze it.

Solution:

Research-paper based question.

Question 3: Total Points (20+10=30)

Based on the paper "**Cloud Adoption: A Goal-Oriented Requirements Engineering Approach**", answer the following questions:

- (a) How different requirements engineering phases (Elicitation, Analysis and Negotiation, Evaluation, Documentation and Management) are conducted for cloud based environment?
- (b) Why the authors have preferred Goal Oriented Requirements Engineering approach?

Solution:

Research-paper based question.

Question 4: Total Points (10+10=20)

Based on the paper "**Implementing requirements engineering processes throughout organizations: success factors and challenges**", answer the following questions:

- (a) What are the major factors which affect organization-wide implementation of RE processes?
- (b) What are the characteristics of the RE process which are necessary for successful implementation of RE process?

Solution:

Research-paper based question.