

Tutorial 4

1. Your software company has recently secured a project to develop an online banking system for a local bank. Assume that your team is at Requirements Validation phase now and your team has identified some inconsistency and conflicts problems on the requirements that gathered from the previous phase.
 - (a) With the aid of examples, differentiate the three common types of inconsistency in requirements, i.e. Terminology clash, Designation clash and Structure clash.
 - (b) What are the activities that your team would perform in *managing requirements conflict* for the project?
 - (c) The table below shows the risk likelihood, consequences and severity information for one of the identified risks for the above project. Calculate the *risk exposure* for each independent consequence. What is the *overall risk exposure*? You are required to show all your workings clearly. All the values should be rounded up to 3 decimal points.

Risk : “The online banking system fails to perform the intended operation”

Consequences	Risk likelihood		
	Likely (0.8)	Possible (0.5)	Unlikely (0.2)
Unsatisfactory customers	10	8	6
Bad reputation	8	8	4
Number of customers decreased	6	6	2

Note: Assume that the scale of severity level are 10, 8, 6, 4 and 2 for catastrophic, severe, high, moderate and low respectively.

2. Explain any **TWO (2)** conflict resolution tactics. (Use examples for your explanation)
3. With aid of examples, differentiate *product-related risk* from *process-related risk*.
4. Stages involved in **Risk Management** of requirements engineering

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5. You are given the following risk Impact matrix and Effectiveness matrix for a project, complete the matrices. Show your workings clearly. All the values should be rounded up to 3 decimal points.

Objectives	Risk			Loss of objective
	System failure (likelihood: 0.3)	System provide inaccurate data (likelihood: 0.5)	System attack by unauthorized personnel (likelihood: 0.3)	
Improve customer services (weight : 0.3)	0.5	0.7	0.5	
Clients P&C data will be protected (weight : 0.4)	0.1	0	0.9	
Improve staff job satisfaction (weight : 0.3)	0.7	0.2	0.3	
Risk Critically				

Countermeasures	Risk			Overall Effect of countermeasure
	System failure (likelihood: 0.3)	System provide inaccurate data (likelihood: 0.5)	System access by unauthorized personnel (likelihood: 0.4)	
Install firewall	0	0	0.9	
Systematic & detailed system testing by QA team	0.8	1	0	
Software re-engineering	0.7	0.8	0.2	
Combined risk reduction				

Tutorial 4 (Cont')

6. You, as a project manager, are in the midst of evaluating and prioritizing the software requirements for a project.

- (a) Assume that the software options to be evaluated are: “*Get customer feedbacks by email*” or “*Get customer feedbacks by e-form*”. The evaluation criteria are *Fast Response*, *Response Rate* and *Reliable Response*. The significance weighting for the above three criteria are *0.20*, *0.30* and *0.50* respectively.

The estimating option scores for “*Get customer feedbacks by email*” on the three criteria are *0.60*, *0.30* and *0.40* respectively. On the other hand, the estimating option scores for “*Get customer feedbacks by e-form*” on the three criteria are *0.80*, *0.70* and *0.40* respectively.

- (i) Prepare a weighted matrix for estimating the ***total score*** of each option on each evaluation criterion. You are required to show all your workings clearly. All the values should be rounded up to 3 decimal points. (9M)
- (ii) Which is the best software option? (1M)

- (b) Evaluate the importance of ***requirements prioritization***.