

Assignment #4

Due Date: 11/14/16 by 9:00am

Deliverable:

Post your homework as a SINGLE PDF file on Blackboard with the name "HW4_YourLastName"

Important Notes:

- Do NOT communicate or share your assignment with others
- Do NOT share your personal laptop with your classmates

High-Level Requirements:

- Consider the data listed in the following matrix for a product of size 53 KLOC:
 - Calculate the defect removal rate for every phase
 - Calculate the defect injection rate for every phase
 - Calculate the defect escape rate for every phase
 - Calculate the overall defect removal effectiveness.
 - Which phase is the most effective in removing defects? Explain.
 - Do you think reviews and inspections were effective? Explain.
 - If the number of defects originated in requirements phase increased by 25% and defects detected in requirements review increased by 25%, do you think that will have a positive or negative impact on the defects originated in the coding phase? Explain your answer in detail (present data to support your answer).
 - If the number of defects originated in design phase increased by 5% and defects (defects escaped from prior phases and injected in current) detected in code inspections increased by 95%, do you think that will have a positive or negative impact on defect removal effectiveness for the testing phases? Explain your answer in detail (present data to support your answer).

Defect Origin									
Where Found		Requirement	Analysis	Design	Coding	Unit Testing	Integration Testing	System Testing	Field
	Requirement	90							
	Analysis	75	47						
	Design	67	37	103					
	Coding	34	43	61	279				
	Unit Testing	39	51	71	87	5			
	Integration Testing	29	7	41	28	-	7		
	System Testing	5	7	3	18	-	-	5	
	Field	1	1	2	7	-	-	-	2