

# **Assignment #4**

**Due Date: 10/30/17 by 9:00am**

## **Deliverable:**

Post your homework as a SINGLE PDF file on Blackboard with the name "HW4\_YourLastName\_ FirstName"

## **Important Notes:**

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

# Requirements:

Consider the data listed in the following matrix for a product of size 120KLOC:

1. Calculate the defect removal rate for every phase
2. Calculate the defect injection rate for every phase
3. Calculate the defect escape rate for every phase
4. Calculate the overall defect removal effectiveness.
5. Which phase is the most effective in removing defects? Explain.
6. Do you think reviews and inspections were effective? Explain.
7. If the number of defects originated in design phase increased by 10% and defects detected in design review increased by 10%, do you think that will have a positive or negative impact on the defect removal effectiveness in the coding phase? 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	40							
	Analysis	36	73						
	Design	66	45	98					
	Coding	39	67	84	261				
	Unit Testing	15	14	38	78	17			
	Integration Testing	21	22	73	37	-	19		
	System Testing	22	11	43	24	-	-	32	
	Field	4	1	2	5	-	-	-	7