

Assignment 1 - Capability Maturity Model

Spring 2018

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Score percentage: 10%

1 Work description

Homework 1 consists of understanding the Capability Maturity Model (CMM) for software. The reading material is available in Canvas. The students will discuss the topic in class on January 16, 2018. Then each student will submit a report that reflects their understanding of the topic. The report is due on January 23, 2018.

To prepare for the discussion you must read Chapter 1, Chapter 2, and Chapter 4 of the report “Capability Maturity Model for Software, Version 1.1”. You should think about these questions:

1. What are the fundamental concepts for process maturity?
2. What are the levels of process maturity? Are they sufficient to measure the maturity of organizations?
3. How improving process maturity level helps managing the projects?
4. What are the uses of CMM?
5. What would you do to improve your maturity level?

Search the web for organizations that apply CMM and learn about their use of the model.¹

You shall submit an essay that reflects your understanding of the topic.

¹e.g., <https://is-c.panasonic.co.jp/en/experiencetree/history/>

2 Report content

Your essay (4 to 6 pages) should address the questions above in a concise and clear way. It should provide:

- Summary of the document (What did you understand?)
- Summary of the discussion in class (what did you learn from the discussion?)
- Description of your development process.
- Discussion on how you can use CMM for your development process.

3 Grading criteria

- Quality of the document summary (30 points)
 1. What are the fundamental concepts for process maturity? (10 pts)
 2. What are the levels of process maturity? Are they sufficient to measure the maturity of organizations? (10 pts)
 3. How improving process maturity level helps managing the projects? (10 pts)
- Quality of the in-class discussion summary (40 points)
 1. Why do we have several levels of process maturity and why do we need these levels? (10 pts)
 2. What items the students liked of CMM? (10 pts)
 3. What items the students did not like of CMM? (10 pts)
 4. Why big companies have informal CMM but small companies do not? (10 pts)
- Description of your development process (30 point)
 1. What are the activities, roles and artifacts of your process and how are they sequenced? (10 pts)
 2. How could the maturity model be useful for your project? (10 pts)

3. What can you do to improve your team's maturity level? (10 pts)

Address each of the items above in a separate section.