**WiD Peer Feedback**

COMP256 – Computing Abstractions

Dickinson College

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**Introduction:**

For this assignment you will be providing feedback to two of your classmates on their draft WiD assignment for COMP 256. Recall that for this course the WiD learning goal is:

* “Be able to use metaphor and analogy to explain complex technical concepts.”

Also recall that the assignment was to respond to the following prompt:

**In about 500-800 words, develop a metaphor of your own that can be used to explain caching.** You must clearly identify and explain how the elements of your metaphor play the roles of main memory, cache, registers and ALU. In addition, you must use your metaphor to explain in detail the ideas of cache hits and cache misses and how the concepts of spatial and temporal locality contribute to cache efficiency.

**\*\*\* You must invent your own metaphor. \*\*\***

**\*\*\* You may not use the Plumber metaphor for this assignment. \*\*\***

Given that a normal assignment is 2-3 hours in length, a reasonable expectation would be for each of your two reviews to receive one hour of your attention.

**Peer Reviews:**

Drafts of two submissions made by your classmates will have been uploaded to a new folder in the COMP256 folder in your WiD repository. Your assignment is to prepare feedback on each of those drafts. I will then return your feedback to your classmates for them to use in revising their draft into a final version. Similarly, you will receive feedback on your draft that you will use in revising your draft as well.

1. Get the drafts that you are to peer review. These drafts have been placed into a folder named PeerReview in your COMP256 folder in your WiD repository. The files will be named draftXX.pdf and draftYY.pdf where XX and YY will be numbers that I have used to preserve the anonymity of the authors.

2. For each of the drafts you are to review:

a. Create a new document with the draft number and the word feedback in the name (e.g. draft05-feedback.docx)

b. The feedback should be anonymous, so **please do not put your name or any other identifying information in this file.**

c. Review the questions below and copy them into your document.

d. Read the draft written by your classmate with the questions in mind.

e. Respond to each question with careful honest constructive feedback for your classmates. The goal is to help them improve their draft when they revise it into a final submission.

The following pages provide very useful tips for giving feedback. You are encouraged to read them and apply what you learn as you complete your reviews:

* + <https://serc.carleton.edu/sp/library/peerreview/tips.html> (short)
  + <https://www.iup.edu/liberal/files/for_faculty_and_staff/workshops/julie_reynolds-nsm/peer-review-guidelines.pdf> (longer)

f. **Convert your feedback document into a pdf file** with the draft number and the word feedback in the filename (e.g. draft14-feedback.pdf).

g. Place that pdf document into the PeerReview folder in your WiD repository.

**The Questions:**

Each peer review document should contain the following five questions and your responses.

**1. The Metaphor:** The impression that a piece leaves with a reader is a reflection of how well it communicated its point. After reading the piece, write a concise summary of the metaphor that is being used in a few sentences of your own words. This will provide the author with a picture of what you took away from reading their writing. If this does not agree with what they intended for the reader to take away, it can be a valuable source of feedback for revision.

**2. The Elements:** The prompt explicitly asks that the metaphor elements corresponding to the main memory, cache, registers and ALU be identified.

a. For each of the computing elements below, fill in the corresponding metaphor element that was identified by the author. If you think that any of these have not been clearly defined indicate that by writing “Not clearly specified.”

i. The main memory:

ii. The cache:

iii. The CPU registers:

iv. The ALU:

b. Of the metaphor elements identified in part a:

i. Which one did you find the most effective in illustrating the role of the corresponding computing element in a system with caching? Briefly describe why you found this element more effective than the others.

ii. Which one did you find the least effective in illustrating the role of the corresponding computing element in a system with caching? Give concrete suggestions for how this could be improved. You might suggest different metaphor elements that could be used or how the chosen element could be used more effectively.

**3. Hits and Misses:** The prompt explicitly asks that the metaphor be sufficiently rich to be used to explain cache hits and cache misses.

a. Does the author use the metaphor to explain cache hits and cache misses? If no, make some concrete suggestions for how these ideas might be explained using the author’s metaphor and then skip to question 4.

b. Were the explanations of cache hits and misses factually correct? If not, briefly explain the way(s) in which you believe that they are incorrect.

c. Make at least one concrete suggestion for how you think the ideas of cache hits and cache misses might be improved.

**4. Locality:** The prompt explicitly asks that the metaphor be used to explain how spatial and temporal locality contribute to cache efficiency.

a. Does the author explain spatial and temporal locality? If no, make some concrete suggestions for how these ideas might be explained using the author’s metaphor and then skip to question 5.

b. Were the explanations of temporal and spatial locality factually correct? If not, briefly explain the way(s) in which you believe that they are incorrect.

c. Make at least one concrete suggestion for how you think the ideas of temporal and spatial locality might be improved.

**5. Length:** The target length was 500-800 words. However, that is not a hard limit. More important here is whether the writing is of an appropriate length to address the prompt both full and concisely.

a. If the author were to add to their response, which parts of the essay would benefit from additional explanation? What concrete suggestions do you have for doing so?

b. If the author were to shorten their response, what parts of the essay could be revised to be shorter or were not essential and could be removed? What concrete suggestions do you have for shortening the essay?

c. Overall would you recommend expanding or contracting the overall length of the draft? Briefly explain why and how you might suggest implementing your recommendation.

**6. Final Thoughts:** Is there any additional praise or constructive feedback that you would like to offer that did not fit into your responses to earlier questions? This would also be an appropriate location to make constructive suggestions about structural or grammatical issues with the writing.