CptS 322 Software Engineering Principles I

Spring 2018
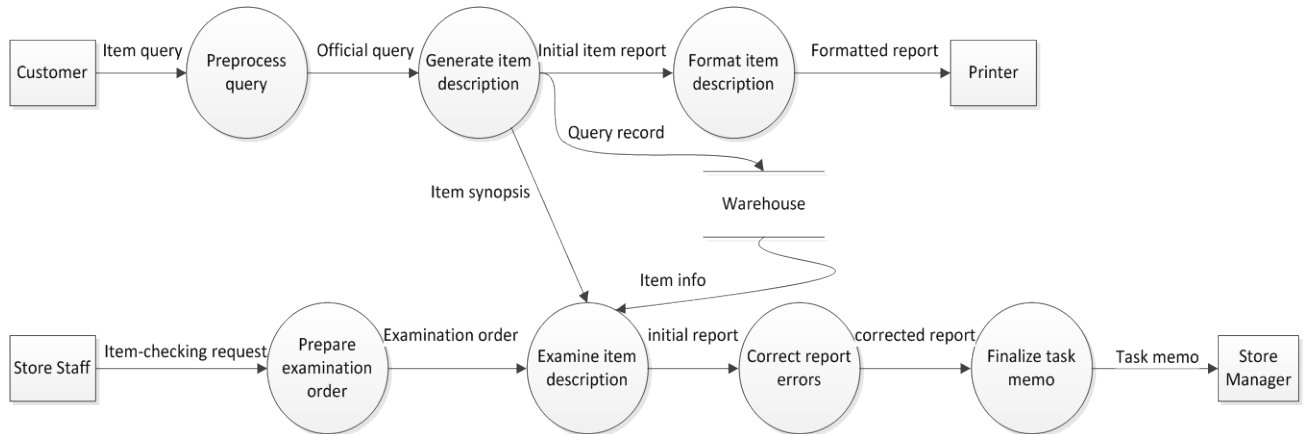
Homework 5
(Due Friday/ April. 13th, 2018 on Blackboard)

1. We have studied four architectural styles: data-centered, data-flow, call-return, and layered. Now give an example software project for which you think each of these styles would fit the best. Briefly justify the choice of architectural style for the example project you chose. [12 points]

2. There are two measures of functional independence in software design: cohesion and coupling. Explain in your words what each of these measures means. Is it better to have higher/lower cohesion? Why? Is it better to have higher/lower coupling? Why? [18 points]

3. The following data flow diagram (DFD) is part of the flow models for the requirements of the ACE store management software. It describes the process of responding to a customer request for querying about an item. Derive the architecture design from this DFD, and draw the component diagrams that represent your architectural design. [20 points]

Notes:
-Submit a single PDF for these questions to Blackboard.
-Use standard UML notations when drawing the diagrams (no hand-drawing is acceptable).