CptS 322 Software Engineering Principles I

Spring 2023

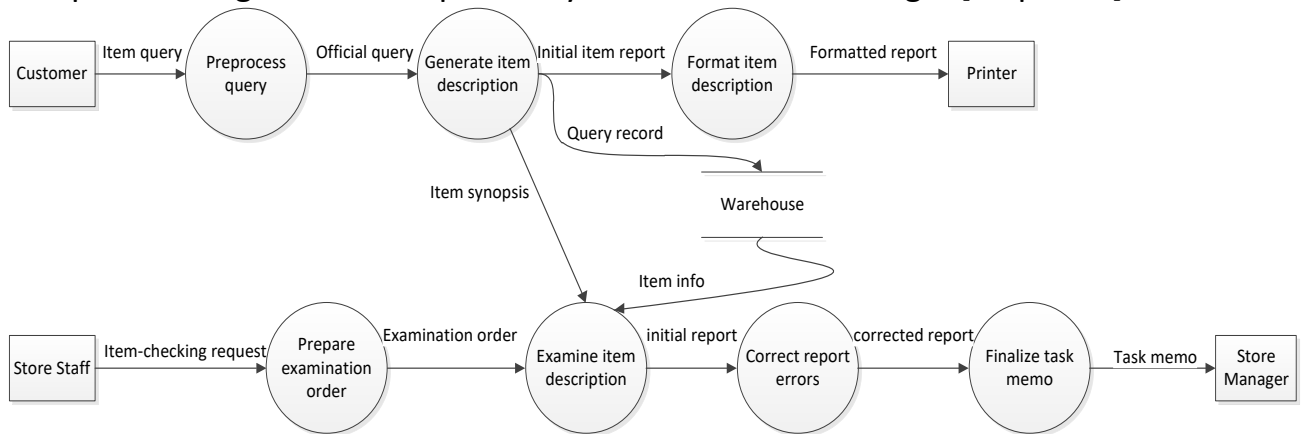# Homework 5

(Due April 23th, 2022 on Canvas)

1. We have studied four architectural styles: data-centered, data-flow, call-return, and layered. Now for each style, please give an example project that would be a good fit for the style. Briefly justify your choice. [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 (brief) component diagrams that represent your architectural design. [20 points]

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