1. In my opinion, reference architecture is an architecture description of some fundamental components of a specific domain, including the relationships between the components. The purpose of reference architecture is to introduce a template of the system in order to solve a problem of the domain. When we document the reference architecture, there are two important considerations: components and relationships. The components are from the requirements of the domain or the problem, and the relationships describe how components connect and communicate to each other. When we document and analyze a reference architecture, the goals are: provide or summarize a high-level template of a system of the target domain, and explain or conclude how the system solves the problem of that domain.
2. The similarities between a reference architecture and a high-level conceptual architecture are: identify key components of the system but not into details: only introduce components’ responsibilities and functionalities rather than show technical details or implementations of the components. Both of the architecture shows the relationships between components, such as data flow. The differences between them are: a high-level conceptual architecture is a decomposition of a system, while a reference architecture is a system template that can be applied to many systems. In other words, their purposes are different: a high-level conceptual architecture is an abstraction of a system, and a reference architecture is an abstraction of a solution of a domain. Reading these two papers will help with approaching the midterm architecture documentation assignment, it reminds me of an important rule: keep the architecture abstractive. Details such as interface or implementation are unnecessary, because a reference architecture should be a solution to a domain, not a specific system. The reference architecture should be an abstractive template in order to derive different systems for the domain.