**Week 1 Discussion: Software Architecture Defined Role Play**

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CST307: Software Architecture & Design

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Software architecture is a system's organization or structure(s), providing a robust foundation on which software can be built, its elements, and explaining its behavior. One could say that software architecture is the high-level infrastructure, skeleton, or blueprint of a software system.

The way that software architecture compares to software design, essentially, is that software architecture focuses on building a reusable framework, or blueprint, in which software design tailors that framework to meet the specific requirements for the client. Software design develops the code that defines the software's elements, functions, and classes based on the software architecture blueprint.

With regard to the software development life cycle or SDLC, software architecture has a role in every phase of the SDLC as well as a role outside of it. A software architect must keep up with the new and continuously changing technologies, even if they are not currently using those particular technologies.

Not all software has a formal architecture, but it does have architecture, even if it is just the architecture of the language in which it is written. An adhoc software architecture might be alright for small projects or coding challenges/hackathons, but for large-scale projects, not having a good software architecture for the codebase will lead to significant problems throughout the project's life cycle.

It is important to spend time with software architecture. Software architecture provides a vehicle for communication with all stakeholders. Software architecture significantly affects the early design decisions of a project. Software architecture, because it is an abstraction, can be transferable for use in other projects.

Sincerely,

Shaun Hoadley