

School of Science, Computing and Engineering Technologies  
Swinburne University of Technology

**SWE30003 Software Architectures and Design**

**Tutorial Week 9**

**(Architecture Styles and Patterns)**

Please form teams of three to four students and discuss the following questions:

1. A layered software structure sounds like a good structure to use for incremental development. Discuss benefits and drawbacks of a layered structure for incremental development.
2. Name and describe two architectural styles that can be used to improve the *Maintainability* of a system, and how those two architectures specifically aid maintainability.
3. What are the coupling and cohesion characteristics of the following architectural styles:
  - a. Layered
  - b. Blackboard
  - c. Dataflow
  - d. Peer-to-Peer
4. What is it about patterns that make them useful to different systems? In contrast, why are pattern implementations for specific applications rarely reusable?

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Any questions from weekly submissions?