

**Information and Communications Technology Industry Training Advisory Committee  
Software Products and Software Services (SW) branch  
Unit of Competencies**

1. Title	Develop application software architecture models	
2. Code	ITSWAR519A	
3. Range	Evaluate, perform trade-offs and recommend application software architecture models and patterns for an organisation or for solving existing problems related to software architecture in an organisation [Architecture – Application Software Architecture]	
4. Level	5	
5. Credit	2	
6. Competency	<p>6.1 Comprehend various application software architecture models and patterns, their variants and various technologies behind them</p> <p>6.2 Select and recommend the most appropriate application software architecture model</p> <p>6.3 Select and / or develop necessary application software architecture resources</p> <p>6.4 Select, recommend and develop appropriate application software architecture model(s) professionally</p>	<p><u>Performance Requirement</u> Be able to explain the assumptions, key features, underlying mechanisms, strengths and weaknesses of different application software architecture models</p> <p>See Remark for some examples of application software architecture models.</p> <p>Be able to review, perform comparison and trade-offs, and propose the most appropriate application software architecture model(s) for the software systems to be developed for an organisation or to solve existing problems related to software architecture in an organisation</p> <p>Be able to</p> <ul style="list-style-type: none"> <li>▪ select relevant application software architecture resources (e.g. standards and tools) based on the business drivers and their best fitness for intended purposes</li> <li>▪ develop and implement application software architecture resources so as to <ul style="list-style-type: none"> <li>➢ support the application software architecture</li> <li>➢ be included as part of ICT infrastructure for an organisation</li> </ul> </li> </ul> <p>Be able to</p> <ul style="list-style-type: none"> <li>▪ review, select and recommend appropriate application software architecture model(s), standards and tools with professional judgement</li> <li>▪ ensure that the adopted application software architecture(s) supports good software design and development practices and are in compliance with organisation's guidelines as well as any (local and international) laws and regulatory requirements, where applicable</li> </ul>
7. Assessment Criteria	The integrated outcome requirement of this UoCs is the ability to develop the most appropriate application software architecture models for application software systems that satisfy the needs of all stakeholders.	
Remark	Examples of application software architecture models are JEE5, dot.Net, SAA, Client/Server, n-Tier, and SOA.	