

SKILLS FRAMEWORK FOR FINANCIAL SERVICES SKILLS MAP - DATA ENGINEER					
Sector	Financial Services				
Track	Digital and Data Analytics				
Occupation	Data Engineer				
Job Role	Data Engineer				
Job Role Description	<p>The Data Engineer supports the design, implementation and maintenance of data flow channels and data processing systems that support the collation, storage, batch and real-time processing, and analysis of information in a scalable, repeatable and secure manner. He/She focuses on defining optimal solutions to data collection, processing and warehousing. He designs, codes and tests data systems and works on implementing them into the internal infrastructure. He focuses on collecting, parsing, managing, analysing and visualising large sets of data to turn information into insights accessible through multiple platforms.</p> <p>The Data Engineer is passionate about numbers and comfortable working with large data sets. He has a keenness for understanding business processes and resolving challenges in order to provide solutions with the help of clean and interlinked databases and architectures. He is highly analytical and logical in approaching problem solving.</p>				
Critical Work Functions and Key Tasks / Performance Expectations	Critical Work Functions	Provide data analytics services to internal stakeholders	Key Tasks		
			Work with stakeholders to understand needs for data structure, availability and accessibility		
			Support translation of data needs into technical system requirements		
			Conduct research on hardware and software needs to support selected solutions		
			Analyse latest technologies, strategies, and products in database and data processing software according to relevance to organisation		
	Build data analysis and maintain processing systems	Assist with integration of data systems with existing infrastructure		Support identification of internal and external data sources	
		Develop code, scripts and data pipelines to process structured and unstructured data near real-time		Develop prototypes and Proof of Concepts (PoCs) for selected solutions	
		Monitor data system performance		Support handling and logging of errors	
		Develop data solution optimisation approaches		Facilitate data cleansing, enrichment and data quality improvements	
		Record data sources, models and algorithms used and developed in past projects		Develop tools to improve data flows between internal and/or external systems and data warehouse	
	Skills and Competencies	Technical Skills and Competencies		Generic Skills and Competencies (Top 5)	
		Data Analytics and Computational Modelling	Level 3	Sense Making	Intermediate
		Data Collection and Analysis	Level 3	Problem Solving	Intermediate
		Emerging Technology Synthesis	Level 3	Digital Literacy	Intermediate
		Ethical Culture	Level 3	Resource Management	Intermediate
Programming and Coding		Level 3	Transdisciplinary Thinking	Basic	
Software Configuration	Level 3				
Programme Listing	For a list of Training Programmes available for the Financial Services sector, please visit: www.skillsfuture.sg/skills-framework/financial-services				

The information contained in this document serves as a guide.