

**SKILLS FRAMEWORK FOR RETAIL  
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

<b>TSC Category</b>	Retail Analytics					
<b>TSC</b>	Data-Mining and Modelling					
<b>TSC Description</b>	Establish and deploy data modelling techniques to support narrative and predictive analytics efforts and identify trends and patterns for simulation and forecasting purposes					
<b>TSC Proficiency Description</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Level 4</b>	<b>Level 5</b>	<b>Level 6</b>
	<b>RET-RAN-1003-1.1</b>	<b>RET-RAN-2003-1.1</b>	<b>RET-RAN-3003-1.1</b>	<b>RET-RAN-4003-1.1</b>	<b>RET-RAN-5003-1.1</b>	
	Collect raw data and carry out activities to maintain data accuracy, cleanliness and integrity	Prepare data sets for analysis and conduct data explorations and correlation analysis	Address potential data quality issues, conduct narrative analytics and deep-dive analysis to identify patterns and trends	Build leading practices in safeguarding data accuracy, cleanliness and integrity, review and propose appropriate analytics models	Drive, design and establish data-mining and modelling methodologies and data quality governance frameworks	
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>Objectives of data-mining and modelling</li> <li>Data-mining and modelling processes and systems</li> <li>Methods of data-mining and modelling</li> </ul>	<ul style="list-style-type: none"> <li>Objectives of data-mining and modelling</li> <li>Data-mining and modelling processes and systems</li> <li>Methods of data-mining and modelling</li> <li>Statistical software and methodologies</li> </ul>	<ul style="list-style-type: none"> <li>Various uses of data-mining</li> <li>Data modelling tools and techniques</li> <li>Data collection methodologies and approaches</li> <li>Data confidentiality issues associated with presenting statistical results</li> <li>Business objectives</li> </ul>	<ul style="list-style-type: none"> <li>Methods to validate data and information</li> <li>Types of statistical methodologies to make inferences</li> <li>Key metrics to drive desired outcomes</li> <li>Statistical software suitable for data-mining requirements</li> <li>Organisations business problems</li> </ul>	<ul style="list-style-type: none"> <li>Guiding principles on data-mining and modelling frameworks</li> <li>Data-mining requirements based on organisational needs</li> <li>Application data modelling tools and techniques to synthesise patterns and trends</li> </ul>	
<b>Abilities</b>	<ul style="list-style-type: none"> <li>Conduct activities to maintain data accuracy, cleanliness and integrity based on established guidelines</li> <li>Gather raw data for formation of data sets, analysis, simulation and forecasting</li> <li>Prepare and document data files in accordance with established procedures</li> <li>Assist in performing data exploration and correlation analysis</li> </ul>	<ul style="list-style-type: none"> <li>Enforce procedures to safeguard data accuracy, cleanliness and integrity</li> <li>Develop data sets from raw data</li> <li>Prepare data sets for analysis, simulation and forecasting</li> <li>Perform data exploration and correlation analysis</li> <li>Identify first level patterns and trends in datasets</li> </ul>	<ul style="list-style-type: none"> <li>Develop guidelines to safeguard data accuracy, cleanliness and integrity</li> <li>Identify data quality issues</li> <li>Perform narrative analytics based on data sets</li> <li>Conduct deep-dive analysis to identify patterns and trends in data sets</li> <li>Propose or construct appropriate analytics models based on train and test analysis</li> </ul>	<ul style="list-style-type: none"> <li>Establish leading practices in safe guarding data accuracy, cleanliness and integrity</li> <li>Provide guidance on resolution of data quality issues</li> <li>Review appropriate analytics models based on relationships between variables</li> <li>Propose appropriate business scenarios for the conduct of preliminary simulation and forecasting analytics</li> </ul>	<ul style="list-style-type: none"> <li>Design and establish data mining and modelling methodology to be applied within the organisation</li> <li>Establish data quality governance framework</li> <li>Review findings on analytics correlations and causality</li> <li>Establish interactive analytics models based on dynamic scenarios</li> <li>Review business scenarios and outputs from simulation and forecasting analytics</li> </ul>	