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| **TSC Category** | Development and Implementation | | | | | |
| **TSC Title** | Data Visualisation | | | | | |
| **TSC Description** | Implement contemporary techniques, dynamic visual displays with illustrative and interactive graphics to present patterns, trends, analytical insights from data or new concepts in a strategic manner for the intended audience | | | | | |
| **TSC Proficiency Description** | **Level 1** | **Level 2** | **Level 3** | **Level 4** | **Level 5** | **Level 6** |
|  |  | **ICT-DIT-3006-1.1** | **ICT-DIT-4006-1.1** | **ICT-DIT-5006-1.1** |  |
|  |  | Select appropriate visualisation techniques and develop dashboards to reflect data trends and findings | Design data displays to present trends and finding, incorporating new and advanced visualisation techniques and analytics capabilities | Establish an effective data visualisation architecture and design intelligent and adaptable displays employing optimal delivery modes, mechanisms and timings |  |
| **Knowledge** |  |  | * Interpretation of data analysis and findings * Types of information displays * Suitability of different data representations and visual displays for different contexts * Data visualisation tools and techniques * Elements of data dashboards | * New data visualisation tools and techniques * Range of methods to portray data patterns, trends and correlations * Dashboard development process and techniques * Features of data displays * Strategic visualisation and mapping techniques | * Emerging trends and developments in data visualisation * Strategic elements and considerations in a data presentation architecture * Modes and mechanisms for data delivery * Intelligent data dashboard design methodologies and techniques |  |
| **Abilities** |  |  | * Select appropriate visualisation techniques and information displays to convey data and findings * Organise the presentation of data to reflect trends and correlations in a visually compelling way * Incorporate appropriate elements to create informative and dynamic data displays * Develop basic dashboards and scorecards to display internal as well as external benchmark data * Incorporate interactive graphics, visuals and technical features into the data presentation * Communicate limitations of data and interpretations of findings | * Introduce new or emerging visualisation tools and techniques that are fit for purpose * Exercise judgement on the presentation of data to ensure that critical trends and findings are presented in the optimal way * Develop dashboards and scorecards incorporating advanced visualisation techniques and embedding analytics capabilities * Review tables, graphs, and dynamic data displays, to ensure key questions from key stakeholders are addressed * Design features of data displays including navigation, layout, user interface and user experience of interactive graphics * Align interpretation and presentation of data analytics findings with subject matter experts | * Establish an effective data presentation architecture to address critical business questions * Integrate latest developments in data visualisation tools, techniques and methodologies * Determine suitable data presentation delivery modes and mechanisms, tailored to key stakeholders' needs * Make decision on the optimal timing for presentation and updates of data and trends on dashboards and systems * Design intelligent data dashboards and customisable visual displays * Lead efforts to interpret and present explanations for counterintuitive patterns or findings |  |
| **Range of Application** | Data visualisation tools may include, but are not limited to: • Tableau • HTML/CSS • SAS Visual Analytics • R  Data visualisation techniques may include, but are not limited to: • Line charts • Network diagram • Map frequency chart | | | | | |