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| **TSC Category** | Development and Implementation | | | | | |
| **TSC Title** | Cloud Computing | | | | | |
| **TSC Description** | Implement cloud solutions to enhance business performance and security of IT systems | | | | | |
| **TSC Proficiency Description** | **Level 1** | **Level 2** | **Level 3** | **Level 4** | **Level 5** | **Level 6** |
|  |  | **ICT-DIT-3020-1.1** | **ICT-DIT-4020-1.1** | **ICT-DIT-5020-1.1** | **ICT-DIT-6020-1.1** |
|  |  | Deploy cloud solutions and resolve cloud integration issues | Develop plans to implement cloud solutions | Evaluate the suitability of cloud solutions against organisational requirements and business needs | Build actionable strategy plans and policies for the introduction and adoption of cloud solutions across the organisation |
| **Knowledge** |  |  | * Security and quality standards * Diagnostic tools for cloud-related problems * Types of installation tests for cloud solutions * Technical solutions or techniques to resolve cloud integration-related issues * Database administration and maintenance tools and techniques | * Requirements for implementation of cloud solutions * Impact analysis techniques for cloud solutions * Types of cloud platform integration tools and techniques * Range of installation tests and techniques for cloud solutions * Steps to align existing systems with cloud computing components * Elements and functioning of automated software deployment * Scripting and programming languages * Big data tools and techniques * Range of cloud computing platforms, software and services | * Interactions between various cloud and on-site components and systems * Impact of cloud component additions, changes or removals to the organisation infrastructure and operations * Cloud solutions and associated components * Cloud specifications and implementation techniques * Cloud computing migration protocols and strategies * Trends and technologies in cloud solutions * Industry standards and protocols related to cloud solutions * Methods to evaluate the suitability of cloud solutions * Cost-benefit analysis techniques | * Objectives of cloud solutions adoption and implementation in the organisation * Industry best practices in cloud solutions, technologies and implementation processes * Business impact of cloud deployment, modification, and migration * Organisational requirements and business needs * Trends and technologies in cloud solutions |
| **Abilities** |  |  | * Set up environment for the implementation of cloud solutions in accordance to user requirements * Run tests for cloud solutions to minimise integration-related issues * Detect issues with cloud solutions to identify solutions * Resolve cloud integration and implementation issues * Conduct implementation tests on cloud solutions to measure its effeciveness against defined metrics * Escalate unresolved issues related to implementation of cloud solutions | * Assess the performance of cloud solutions based on expected business needs, usage and traffic volume * Draft specifications for cloud solutions to address usage, performance and security requirements * Develop implementation plans for implementing cloud solutions * Develop processes for the review of metrics associated with implementation of cloud solutions * Resolve escalated issues related to implementation of cloud solutions | * Evaluate organisational requirements and business needs for cloud solutions * Evaluate new and emerging cloud solutions to determine its efficacy and suitability against organisational requirements * Review performance of cloud solutions * Evaluate the benefits and challenges of using cloud solutions * Develop costing for technology requirements for implementation of cloud solutions * Draft recommendations for the introdution of cloud solutions | * Project current and future cloud computing requirements based on business direction and organisational priorities * Foster a culture of experimentation and innovation in the adoption and usage of cloud solutions * Determine the purpose and functions of adopting and implementing cloud solutions at an organisational level * Define hypotheses to guide the experimental design of cloud solutions * Explore new cloud solutons to determine its suitability for organisational implementation * Endorse recommendations on proposed cloud solutions |
| **Range of Application** | Cloud Computing services and skills may include but not limited to:   * Amazon Web Services (AWS) * Microsoft Azure * Google Cloud Platform * Apache Hadoop * Python * Scala * Python * Perl * Ruby * MongoDB * MySQL * PHP * Java * Microsoft .NET Framework | | | | | |