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| **TSC Category** | Operations and User Support | | | | | |
| **TSC Title** | Data Migration | | | | | |
| **TSC Description** | Plan and perform activities to migrate data between computer storage types or file formats | | | | | |
| **TSC Proficiency Description** | **Level 1** | **Level 2** | **Level 3** | **Level 4** | **Level 5** | **Level 6** |
|  |  | **ICT-OUS-3005-1.1** | **ICT-OUS-4005-1.1** |  |  |
|  |  | Prepare data and perform manual or automated data migration, troubleshoot database errors faced, and validate migrated data post-migration to ensure accuracy | Determine the business need for data migration and plan data migration activities, establishing guidelines and strategies to minimise impact on daily business operations |  |  |
| **Knowledge** |  |  | * Manual data migration procedures * Types, categories and usage of data movers including host-based software, array-based software and network appliances * Usage of database migration tools * Duration of different data migration processes and downtime required * Potential risks to the business from data migration activities * Data corruption, application performance issues, missed or lost data, and other potential technical compatibility issues related to data migration * Methods of cleaning and validating data | * Key drivers and objectives of data migration * Industry best practices and methodologies for data migration * Emerging trends in data migration and management * Data migration and database management system software and tools * Applications, pros and cons of data migration and database management system software and tools * Impact of data migration on daily business operations * Applications of different data movers for different contexts and purpose * Scheduling, replication, hardware, data volume and data value requirements for data migration |  |  |
| **Abilities** |  |  | * Perform extraction, transformation and de-duplication of data before migration * Install migration software and configure required hardware according to the communicated data migration plan * Apply tools to automate and accelerate the data migration process, according to a data migration plan * Perform standard manual transfer of data to new storage types, formats or systems according to data migration instructions * Apply data migration policies to move data in an orderly manner * Troubleshoot database errors or problems faced in database migration activities * Validate the migrated data to ensure accuracy * Document the data migration process. | * Determine the business need for data migration * Gather impact of data migration activities on business operations and other potential risks or costs * Formulate a data migration plan to facilitate the transfer of data to new storage types, formats or computer systems * Communicate methodologies for data migration * Determine appropriate database management and migration tools and system software to be used, in ensuring they are fit for organisational purposes * Manage the installation of migration software and the configuration of required hardware * Develop strategies to minimise impact of data migration on daily business operations * Set guidelines for migration documentation to facilitate tracking * Validate post-migration statistics to determine data accuracy |  |  |
| **Range of Application** |  | | | | | |