

IT LEARNERSHIPS

# CLOUD ADMINISTRATOR

QUALIFICATION 118699  
LEARNERSHIP Q-NUMBER: 32Q320171191494

*Designed to support your  
Workplace Skills Plan and  
build job-ready IT capability*

## Build cloud capability

Cloud is how modern businesses run, it powers apps, data and daily operations. The demand for cloud skills continues to grow.

This Cloud Administrator course helps you build ready-to-apply in your teams. Learners gain practical skills to support, manage and optimise cloud environments, preparing them for workplace responsibilities from day one.

Whether your learners are starting out, shifting into tech, or getting ready to build future-ready careers, this qualification opens the door to roles like Cloud Administrator, Cloud Support Technician or Junior Cloud Engineer.



On successful completion of this qualification, learners are awarded: **Occupational Certificate: Cloud Administrator (SAQA ID: 118699)**

We work closely with you to understand your objectives, guide you through the requirements, and support the implementation of qualifications that deliver real impact.



NQF LEVEL

4



CREDITS

149



### WHO SHOULD ENROL?

- Individuals starting a career in IT or cloud computing
- School leavers interested in technology
- Professionals looking to move into cloud roles
- Organisations building entry-level IT and cloud capability
- Teams transitioning into cloud-based environments
- Employers looking to strengthen digital skills pipelines

### WHAT MAKES THIS COURSE DIFFERENT?

This programme is designed to move you from learning to doing

- Build strong foundations in cloud computing
- Apply skills in practical, simulated environments
- Gain real-world exposure that prepares you for the workplace

### WHAT IS THE ENTRY CRITERIA?

- Grade 12

# CLOUD ADMINISTRATOR

QUALIFICATION

The purpose of this qualification is to prepare a learner to operate as a Cloud Administrator and to implement cost-effective cloud-based systems and the cloud management service and transition locally hosted infrastructure to the cloud.

## Skills your teams will build

These skill level outcomes show what learners will be able to do in practice:

- Implement the cloud management service (NQF Level 4)
- Monitor and maintain specific elements of the cloud, cloud users, the cloud environment and overall cloud performance (NQF Level 4)
- Maintain security protocols to secure cloud environments against unauthorised access, threats and other risks (NQF Level 4)

## Recognised, quality-assured qualification

Learners undergo internal assessment across the knowledge, practical, and workplace modules, all of which are formally assessed and moderated, in line with QCTO requirements. Successful completion of all components ensures that learners are EISA-ready for the External Integrated Summative Assessment.

To obtain the qualification, learners must pass the External Integrated Summative Assessment (EISA), conducted at an Accredited Assessment centre under the oversight of an Assessment Quality Partner (AQP). The EISA evaluates learners' competence against the qualification's Exit Level Outcomes through integrated written, practical, and/or work-based assessment methods, in line with approved external assessment specifications.

## An environment that enables your learning journey

To ensure a successful learning journey, learners are supported by the right tools, systems, and experienced mentors within a structured environment that aligns with workplace standards. Everything is designed to help learners learn, practice, and perform with confidence.

## Let's partner for impact!

Our approach combines a deep understanding of your objectives with expert guidance on QCTO programmes, ensuring smooth implementation and meaningful impact in the workplace.

### *We'll help you get clear on the holistic implementation process*

From first conversation to final assessment, you'll be supported by a team that understands how to make QCTO programmes work in practice.

### Delivered your way

- Classroom | Johannesburg
- Virtual | Instructor-led
- On-site | Nationwide

**Take the next step  
with us!**

 [impactful@lrmg.co.za](mailto:impactful@lrmg.co.za)

 [impactful.co.za](http://impactful.co.za)

### Physical Requirements

- Tools, equipment, systems, e.g.: Cloud Services and Cloud ecosystem
- Key processes, e.g.: On-demand cloud services over the internet, availability and reliability of network connection according to Work Flow and Security Protocols

### Human Resource Requirements

- Maximum mentor/learner ratio of 1:3 in the ideal situation
- Supervisor/mentor: 2 years' software development experience

### Legal Requirements

- Legal (product) licences to use software
- OHS compliance certificate
- Vendor certification (if applicable)
- Ethical clearance (where necessary)

# CLOUD ADMINISTRATOR

QUALIFICATION

*This detailed overview outlines how qualification is structured to develop capability progressively – from foundational knowledge, through applied practical skills, to integrated workplace experience. Each module is aligned to the credit requirements of the nationally recognised qualification.*

## KNOWLEDGE MODULES (38 CREDITS)

ID	Name	Level	Credits
252301001-KM-01	Introduction to Cloud Computing	4	8
<p>The main focus of the learning in this knowledge module is to build an understanding of cloud computing principles, concepts, definitions and cloud computing deployment</p> <p>The learning will enable learners to demonstrate an understanding of:</p>			
KM-01-KT01	Introduction to cloud computing		
KM-01-KT02	Cloud computing concepts, definitions and terminology		
KM-01-KT03	Principles of cloud computing		
KM-01-KT04	Key characteristics of clouds and cloud services		
KM-01-KT05	Cloud computing and outsourcing		
KM-01-KT06	Key cloud service providers and their services		
KM-01-KT07	Cloud computing service models		
KM-01-KT08	Cloud computing deployment models		
KM-01-KT09	Cloud configuration		
KM-01-KT10	Cloud native and emerging cloud trends		
KM-01-KT11	Components of cloud computing to enable virtual environments		
KM-01-KT12	Technical challenges and risks for cloud computing		
KM-01-KT13	Resource management		

ID	Name	Level	Credits
<b>252301001-KM-02</b>	<b>Cloud Computing Elements</b>	<b>4</b>	<b>8</b>
<p>The main focus of the learning in this knowledge module is to build an understanding of the cloud computing elements, their functionality, implementation and maintenance</p> <p>The learning will enable learners to demonstrate an understanding of:</p>			
KM-02-KT01	Servers		
KM-02-KT02	Databases		
KM-02-KT03	Data and data storage		
KM-02-KT04	Database performance		
KM-02-KT05	Cloud Storage		
KM-02-KT06	Networks		
KM-02-KT07	Cloud support		

ID	Name	Level	Credits
<b>252301001-KM-03</b>	<b>Containers, Cloud Native and Kubernetes</b>	<b>4</b>	<b>4</b>
<p>The main focus of the learning in this knowledge module is to build an understanding of containers, cloud native and Kubernetes and their respective functionality</p> <p>The learning will enable learners to demonstrate an understanding of:</p>			
KM-03-KT01	Containers		
KM-03-KT02	Configuration of Kubernetes		

ID	Name	Level	Credits
<b>252301001-KM-04</b>	<b>Cloud Security, Risks, Vulnerabilities and Mitigation</b>	<b>4</b>	<b>3</b>
<p>The main focus of the learning in this knowledge module is to build an understanding of the security, risks, vulnerabilities and mitigation in terms of cloud deployment and cloud migration of cloud solutions.</p> <p>The learning will enable learners to demonstrate an understanding of:</p>			
KM-04-KT01	Governing cloud computing		
KM-04-KT02	Risk		
KM-04-KT03	Cloud security principles		
KM-04-KT04	Security Concepts		
KM-04-KT05	Cloud security technologies		

ID	Name	Level	Credits
<b>252301001-KM-05</b>	<b>Data and Databases in the Cloud</b>	<b>4</b>	<b>6</b>

The main focus of the learning in this knowledge module is to build an understanding of data and databases and giving meaning to data through data processing, analysis and visualisation and how data work in the cloud and reporting in a spreadsheet

The learning will enable learners to demonstrate an understanding of:

KM-05-KT01	Data vulnerability and security
KM-05-KT02	Data and data processing
KM-05-KT03	Databases, data storage and access to data
KM-05-KT04	Structured query language (SQL)
KM-05-KT05	Data scraping
KM-05-KT06	Software for analysing and visualising data.

ID	Name	Level	Credits
<b>252301001-KM-06</b>	<b>Fundamentals of Cloud Computing Platforms</b>	<b>4</b>	<b>3</b>

The main focus of the learning in this knowledge module is to build an understanding of the fundamentals of cloud computing platforms and the functionalities and how to use those

The learning will enable learners to demonstrate an understanding of:

KM-06-KT01	Problem solving skills for IT Professionals
KM-06-KT02	Operating systems
KM-06-KT03	Managing files
KM-06-KT04	Applications utility, troubleshooting, and optimization
KM-06-KT05	Configuring device drivers
KM-06-KT06	Networking and wireless connections
KM-06-KT07	Recovery
KM-06-KT08	Security fundamentals
KM-06-KT09	IT Foundation and Cloud Programming
KM-06-KT10	Key features of cloud platforms (at least 3 vendor specific platforms)

ID	Name	Level	Credits
252301001-KM-07	Introduction to Cloud Computing Governance, Legislation and Ethics	4	1

The main focus of the learning in this knowledge module is to acquire general knowledge and understanding of the various legislations governing the workplace and their implications for the employer and employees. The learning of this module will also enable the learner to acquire an understanding of the principles of areas of performance management, business planning concepts, costing of products and concepts of general ethical behaviour and its impact in the workplace

The learning will enable learners to demonstrate an understanding of:

KM-07-KT01	Governance
KM-07-KT02	Legislation governing workplaces
KM-07-KT03	Introduction to ethics and security
KM-07-KT04	Ethics at work
KM-07-KT05	Security
KM-07-KT06	Performance management
KM-07-KT07	Business planning
KM-07-KT08	Costing of products
KM-07-KT09	Resources

ID	Name	Level	Credits
252301001-KM-08	4IR and Future Skills	4	4

The main focus of the learning in this knowledge module is to build an understanding of the impact of 4IR on communities, individuals and businesses and important skills for future needs

The learning will enable learners to demonstrate an understanding of:

KM-08-KT01	4 IR emerging trends
KM-08-KT02	Computing Knowledge
KM-08-KT03	Future skills and competencies (4IR)
KM-08-KT04	4 IR trends affecting businesses
KM-08-KT05	Interpersonal skills
KM-08-KT06	Intrapersonal skills
KM-08-KT07	Communication principles and methods
KM-08-KT08	Written business communication
KM-08-KT09	Presentation skills
KM-08-KT10	Teamwork in the workplace
KM-08-KT11	Committees and meetings
KM-08-KT12	Job descriptions and profiles
KM-08-KT13	Customers and stakeholders
KM-08-KT14	Customer service

ID	Name	Level	Credits
252301001-KM-09	<b>Design Thinking Principles for Innovation</b>	4	1
<p>The main focus of the learning in this knowledge module is to build an understanding of the design thinking principles and application in the workplace</p> <p>The learning will enable learners to demonstrate an understanding of:</p>			
KM-09-KT01	Introduction to design thinking		
KM-09-KT02	The human element		
KM-09-KT03	Creativity		
KM-09-KT04	Innovation		
KM-09-KT05	Design		
KM-09-KT06	Design thinking methodology		
KM-09-KT07	Application of design thinking		

## PRACTICAL SKILL MODULES (55 CREDITS)

ID	Name	Level	Credits
252301001-PM-01	<b>Conduct Effective Server Maintenance and Optimisation</b>	4	8
<p>The focus of the learning in this module is on providing the learner with an opportunity to configure a server according to the different service models in a simulated environment and to maintain server performance optimisation</p> <p>The learner will be required to:</p>			
PM-01-PS01	Configure cloud environment and allocate resources according to the specific service model on a cloud platform		
PM-01-PS02	Apply a structured process to perform server maintenance in line with a server maintenance plan to improve security and stability (in a hybrid environment).		
PM-01-PS03	Track performance data to manage and monitor server optimisation and efficiency		
PM-01-PS04	Choose the right server performance troubleshooting tool to troubleshoot servers to solve server problems in hybrid environment		
<p>Associated Knowledge Modules: KM-01 Introduction to Cloud Computing            KM-02 Cloud Computing Elements</p>			

ID	Name	Level	Credits
252301001-PM-02	<b>Monitor On-Demand Availability of Data Storage, Storage Capacity and Storage Services over the Internet</b>	4	8

The focus of the learning in this module is on providing the learner with an opportunity to monitor on-demand availability of data storage, storage capacity and storage services over the internet to customers in line with the life cycle of data storage and hardware architecture

The learner will be required to:

PM-02-PS01	Configure storage in line with the life cycle of data storage, hardware architecture and company policies.
PM-02-PS02	Administer and maintain storage capacity and storage service to customers/users in line with the life cycle of data storage, hardware architecture.
PM-02-PS03	Manage and monitor data volume (subscription), storage capacity and storage service to customers in line with the life cycle of data storage, hardware architecture and company policies.
PM-02-PS04	Ensure backup and recovery compliance with protocols.

Associated Knowledge Module: KM-02 Cloud Computing Elements

ID	Name	Level	Credits
252301001-PM-03	<b>Provide Cloud Network Administration and Support for Optimal Performance</b>	4	16

The focus of the learning in this module is on providing the learner with an opportunity to provide cloud network administration and support for optimal performance of the network service to meet user demand at any given time and to configure the Cloud Management service and monitor and manage the services

The learner will be required to:

PM-03-PS01	Deploy the cloud management service and networking solutions
PM-03-PS02	Upgrade a cloud network
PM-03-PS03	Monitor cloud and systems performance and identify how performance can be improved
PM-03-PS04	Maintain cloud infrastructure networks and system performance and ensure continued cloud network availability to meet user demand
PM-03-PS05	Troubleshoot a cloud environment to solve problems and ensure integrity of the cloud environment and maintain performance
PM-03-PS06	Support operational duties in terms of Virtual Machines (VM) and Kubernetes services

Associated Knowledge Modules: KM-02 Cloud Computing Elements  
 KM-06 Fundamentals of Cloud Computing Platforms

ID	Name	Level	Credits
252301001-PM-04	Ensure Integrity of the Cloud Ecosystem by Implementing Security Measures	4	8

The focus of the learning in this module is on providing the learner with an opportunity to implement and monitor security measures and controls to ensure integrity of the cloud ecosystem

The learner will be required to:

PM-04-PS01	Implement security control measures to secure a network in a cloud environment
PM-04-PS02	Apply data security and compliance in cloud environments
PM-04-PS03	Monitor and evaluate secure access protocols for security issues such as attacks or breaches.
PM-04-PS04	Implement measures to meet security requirements.

Associated Knowledge Module: KM-04 Cloud Security, Risks, Vulnerabilities and Mitigation

ID	Name	Level	Credits
252301001-PM-05	Access and Visualise Structured Data Using Spreadsheets	4	8

The focus of the learning in this module is on providing the learner with an opportunity to acquire the skills to analyse and visualise data

The learner will be required to:

PM-05-PS01	Report data
PM-05-PS02	Summarise and format data using tables
PM-05-PS03	Create, use and edit pivot tables and pivot charts
PM-05-PS04	Create, use and edit dashboards
PM-05-PS05	Create and configure hierarchies and time data
PM-05-PS06	Apply a data model
PM-05-PS07	Import data from files
PM-05-PS08	Import data from databases
PM-05-PS09	Import data from reports
PM-05-PS10	Visualize data

Associated Knowledge Module: KM-05 Data and Databases in the Cloud

ID	Name	Level	Credits
252301001-PM-06	Participate in a Design Thinking for Innovation Workshop	4	3
<p>The focus of the learning in this module is on providing the learner with an opportunity to acquire the skills to participate in a design thinking intervention and apply design thinking methodologies and look for opportunities to apply the same methodology in world-of-work and personal life</p> <p>The learner will be required to:</p>			
PM-06-PS01	Collaborate with team members to apply innovative and problem-solving strategies.		
PM-06-PS02	Apply design thinking process to solve a problem creatively and innovatively		
Associated Knowledge Module: KM-09 Design Thinking Principles for Innovation			

ID	Name	Level	Credits
252301001-PM-07	Function Ethically and Effectively in the Workplace	4	4
<p>The focus of the learning in this module is on providing the learner with an opportunity to acquire the skills to function ethically and effectively in the workplace</p> <p>The learner will be required to:</p>			
PM-07-PS01	Present information to an audience		
PM-07-PS02	Conduct basic research (gather and explore data and information) on 4IR skills and application opportunities in the workplace		
PM-07-PS03	Ensure compliance with the code of conduct and governance in the workplace		
PM-07-PS04	Collaborate with team members in the workplace		
PM-07-PS05	Attend and participate in meetings		
Associated Knowledge Modules: KM-07 Introduction to Cloud Computing Governance, Legislation and Ethics KM-08 4IR and Future Skills			

## WORK EXPERIENCE MODULES (56 CREDITS)

ID	Name	Level	Credits
252301001-WM-01	<b>On-demand Availability of Server Resources and Services over the Internet</b>	4	20
<p>The focus of the work experience is on providing the learner with an opportunity to:</p> <p>Implement cloud solutions and services related to cloud computing, networks, security, and storage in a cloud environment to meet company's needs</p> <p>The learner will be required to:</p>			
WM-01-WE01	<p>Attend induction program and familiarise self with company processes, procedures, tools and culture</p> <ul style="list-style-type: none"> <li>Attend induction program and familiarise self with the culture of the company.</li> <li>Apply protocols and work etiquette.</li> <li>Attend company specific information sharing sessions (e.g. standing meetings, toolbox talks, power hours, etc.)</li> <li>Familiarise self with and apply "working from anywhere" protocols.</li> <li>Read and understand company cloud management and security policy, protocols and procedures.</li> <li>Comply with governance protocols and code of ethics of the company and ensure legal compliance by adhering to legal requirements (incl. but not limited to privacy, confidentiality, security of data, etc.).</li> <li>Spend time in the various departments of the company, observe process flows and compile wire diagrams or workflow of the processes observed using suitable tools and showing the relationships and influences each of the departments have on each other.</li> <li>Indicate employment of cloud solutions related to the workflow functions.</li> <li>Understand management requirements and expectations from cloud solutions.</li> <li>Understand cloud solutions protocols and procedures.</li> <li>Understand company deployment of cloud solutions.</li> <li>Manage timesheets and apply self-management skills.</li> <li>Collaborate with team members to achieve common and individual goals</li> </ul>		

ID	Name	Level	Credits
252301001-WM-01	<b>On-demand Availability of Server Resources and Services over the Internet</b>	4	20
WM-01-WE02	<ul style="list-style-type: none"> <li>• Assists in setting up public or private cloud systems.</li> <li>• Interpret cloud deployment data</li> <li>• Build new cloud solutions, access to data, hosting the solution on cloud, etc.</li> <li>• Set up private clouds</li> <li>• Integrate systems into the computing environment.</li> <li>• Implement appropriate network configurations including connecting, routing and networking.</li> <li>• Establish connections among cloud networks</li> <li>• Integrate cloud systems into current environments</li> <li>• Implement requests for cloud services modifications</li> <li>• Implement new technologies</li> <li>• Document systems infrastructure for the convenience of the users</li> <li>• Develop concise, detailed documentation for new and existing environments.</li> <li>• Install and troubleshoot network connectivity issues</li> <li>• Execute configuration testing techniques when deploying cloud services</li> <li>• Handle cloud computing services</li> <li>• Transition locally hosted infrastructure to the cloud,</li> <li>• Leverages software-, platform- and infrastructure-as-a-service to deliver various solutions.</li> <li>• Maintain a clean, automated, up-to-date cloud/systems inventory</li> <li>• Install, configure and manage virtual machines and devices</li> <li>• Implement virtual networks and orchestration of routing paths, particularly for hybrid cloud.</li> <li>• Implement cloud-native and serverless development strategies for new applications</li> </ul>		
WM-01-WE03	<p>Conduct the following tasks under supervision</p> <ul style="list-style-type: none"> <li>• Interpret cloud deployment data</li> <li>• Build new cloud solutions, access to data, hosting the solution on cloud, etc.</li> <li>• Set up private clouds</li> <li>• Integrate systems into the computing environment.</li> <li>• Implement appropriate network configurations including connecting, routing and networking</li> <li>• Establish connections among cloud networks</li> <li>• Integrate cloud systems into current environments</li> <li>• Implement requests for cloud services modifications</li> <li>• Implement new technologies</li> <li>• Document systems infrastructure for the convenience of the users</li> <li>• Develop concise, detailed documentation for new and existing environments.</li> <li>• Install and troubleshoot network connectivity issues</li> <li>• Execute configuration testing techniques when deploying cloud services</li> <li>• Handle cloud computing services</li> <li>• Transition locally hosted infrastructure to the cloud</li> <li>• Leverages software-, platform- and infrastructure-as-a-service to deliver various solutions</li> <li>• Maintain a clean, automated, up-to-date cloud/systems inventory</li> <li>• Install, configure and manage virtual machines and devices</li> <li>• Implement virtual networks and orchestration of routing paths, particularly for hybrid cloud</li> <li>• Implement cloud-native and serverless development strategies for new applications.</li> </ul>		

ID	Name	Level	Credits
252301001-WM-02	<b>On-demand Availability of Data storage, Storage capacity and Storage services over the Internet</b>	4	16

The focus of the work experience is on providing the learner with an opportunity to:

Monitor and maintain specific elements of the cloud, cloud users, the cloud environment and overall cloud performance and to manage and monitor data storage and storage capacity in line with the life cycle of data storage, hardware architecture and company policies

The learner will be required to:

WM-02-WE01	Shadow and observe an experienced Cloud Engineer or Architect undertaking the following tasks: <ul style="list-style-type: none"> <li>• Monitor the capabilities and performance of the systems.</li> <li>• Troubleshoot and maintain and networks, cloud platforms and computing resources.</li> <li>• Ensure seamless delivery of all cloud services.</li> <li>• Conduct maintenance duties, such as responding to trouble tickets and alerts, developing patches or fixes for any issues that arise.</li> <li>• Balance workload and deploy in an automated way.</li> <li>• Monitor and alter the systems as per the prescribed methodology.</li> <li>• Provide technical assistance on cloud-based systems, and resolve operational problems</li> <li>• Monitor storage solutions for VM virtual hard disks, database files, user data, and application data.</li> <li>• Ensure that the data backups are available and up to standard for restoration when needed.</li> <li>• Configuring long-term archival storage alongside maintaining corporate compliance.</li> <li>• Apply encryption of data in rest, use, and transit states.</li> <li>• Monitor patches, permissions, and service deployments</li> <li>• Monitor network performance and cloud resources</li> <li>• Maintain cloud servers, including security configurations, patching, and troubleshooting.</li> <li>• Ensure optimum efficiencies for the utilization of cloud services.</li> <li>• Support operational functions such as route/switch, SDN, cloud security, proxies, and load balancers</li> <li>• Conduct testing and troubleshooting procedures</li> <li>• Diagnose, remediate and optimize physical host performance</li> </ul>
WM-02-WE02	Conduct the following tasks under supervision <ul style="list-style-type: none"> <li>• Monitor the capabilities and performance of the systems.</li> <li>• Troubleshoot and maintain and networks, cloud platforms and computing resources.</li> <li>• Ensure seamless delivery of all cloud services.</li> <li>• Conduct maintenance duties, such as responding to trouble tickets and alerts, developing patches or fixes for any issues that arise.</li> <li>• Balance workload and deploy in an automated way.</li> <li>• Monitor and alter the systems as per the prescribed methodology.</li> <li>• Provide technical assistance on cloud-based systems, and resolve operational problems</li> <li>• Monitor storage solutions for VM virtual hard disks, database files, user data, and application data.</li> <li>• Ensure that the data backups are available and up to standard for restoration when needed.</li> <li>• Configuring long-term archival storage alongside maintaining corporate compliance.</li> <li>• Apply encryption of data in rest, use, and transit states.</li> <li>• Monitor patches, permissions, and service deployments</li> </ul>

ID	Name	Level	Credits
252301001-WM-02	<b>On-demand Availability of Data storage, Storage capacity and Storage services over the Internet</b>	4	16
	<ul style="list-style-type: none"> <li>• Monitor network performance and cloud resources</li> <li>• Maintain cloud servers, including security configurations, patching, and troubleshooting.</li> <li>• Ensure optimum efficiencies for the utilization of cloud services.</li> <li>• Support operational functions such as route/switch, SDN, cloud security, proxies, and load balancers</li> <li>• Conduct testing and troubleshooting procedures</li> <li>• Diagnose, remediate and optimize physical host performance</li> </ul>		

ID	Name	Level	Credits
252301001-WM-03	<b>Ensure of Availability and Reliability of Network connection according to Workflow and Security protocols</b>	4	20

The focus of the work experience is on providing the learner with an opportunity to: Apply protection practices for cloud computing environments, applications, data, and information.

The learner will be required to:

WM-03-WE01	Shadow and observe an experienced Cloud Engineer or Architect undertaking the following tasks: <ul style="list-style-type: none"> <li>• Apply security configurations and compliance controls to meet given cloud infrastructure requirements.</li> <li>• Implement defined security technologies for securing cloud environments against unauthorized use/access, distributed denial of service (DDOS) attacks, hackers, malware, and other risks.</li> <li>• Provide security configurations, patching, and troubleshooting</li> <li>• Maintain systems standards as they relate to configuration management, hardening, and security within the cloud infrastructure.</li> <li>• Implement guest and host hardening techniques.</li> <li>• Identify access control methods</li> <li>• Apply the appropriate ACL to the target objects to meet access requirements according to a security template.</li> <li>• Implement firewalls and monitor network security</li> <li>• Detect and respond to threats and actual leakages</li> <li>• Apply security testing techniques:</li> <li>• Apply the appropriate maintenance automation technique to the target objects.</li> <li>• Participate in incident management remediation and work to resolve ongoing issues with the guidance from the Sr. Cloud administrator.</li> <li>• Diagnose, remediate and optimize physical host performance</li> <li>• Determine the appropriate methodology to apply given patches.</li> <li>• Apply the appropriate automation tools to update cloud elements.</li> <li>• Apply an appropriate backup or restore method.</li> <li>• Apply appropriate disaster recovery methods.</li> <li>• Apply the appropriate steps to ensure business continuity.</li> <li>• Apply the appropriate maintenance automation technique to the target objects.</li> </ul>
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ID	Name	Level	Credits
252301001-WM-03	<b>Ensure of Availability and Reliability of Network connection according to Workflow and Security protocols</b>	4	20
WM-03-WE02	<p>Conduct the following tasks under supervision</p> <ul style="list-style-type: none"> <li>• Apply security configurations and compliance controls to meet given cloud infrastructure requirements.</li> <li>• Implement defined security technologies for securing cloud environments against unauthorized use/access, distributed denial of service (DDOS) attacks, hackers, malware, and other risks.</li> <li>• Provide security configurations, patching, and troubleshooting</li> <li>• Maintain systems standards as they relate to configuration management, hardening, and security within the cloud infrastructure.</li> <li>• Implement guest and host hardening techniques.</li> <li>• Identify access control methods</li> <li>• Apply the appropriate ACL to the target objects to meet access requirements according to a security template.</li> <li>• Implement firewalls and monitor network security</li> <li>• Detect and respond to threats and actual leakages</li> <li>• Apply security testing techniques:               <ul style="list-style-type: none"> <li>• Apply the appropriate maintenance automation technique to the target objects.</li> <li>• Participate in incident management remediation and work to resolve ongoing issues with the guidance from the Sr. Cloud administrator.</li> <li>• Diagnose, remediate and optimize physical host performance</li> </ul> </li> </ul>		