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📄 Syllabus

Cloud Computing
Fundamentals

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Content

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Cloud Computing Fundamentals

Our goal at CertMind is to certify the skills of professionals working in the Technology context. To achieve this, we seek to ensure that professionals demonstrate their skills and knowledge through the application of an International Certification Exam.

Certification category

Main category: Emerging technologies

Category: Cloud Computing

Subcategory: Cloud Computing Fundamentals

Scope of certification

The purpose of the Cloud Computing Fundamentals Certification is to show that the professional has the knowledge about the basic concepts, characteristics and techniques to apply Cloud Computing in the business world and recognize its impact on the value generated to the organization, in addition to being competent in the technological and professional world.

Prerequisites

• Be of legal age, according to the minimum age determined by law (according to the National Identity Card that must be uploaded to the platform).

• Have basic knowledge of reading, writing and basic arithmetic: addition, subtraction, multiplication and division.

• Reading and acceptance of the Code of Ethics available on the platform before taking the certification exam.

Code of Ethics

All certified professionals must know, accept and abide by the Code of Ethics, which is available for consultation on the platform.

Recommendations

• It is highly recommended that the professional attends a formal Cloud Computing training of at least 24 hours, segmented in 6 sessions of approximately 4 hours.

Required competencies and job description

In order to ensure that the professional has the minimum competencies and knowledge that can be applied in a real environment, the following topics are addressed in the exam:

Module	Job Description	Required competencies
1. Fundamentals	Recognize the definition and concepts of Could Computing, Cloud models and their characteristics, identify the relationship between Virtualization and Could and understand CDN.	1. Contextualization, concepts and definitions of Cloud Computing 2. Traditional model vs Cloud Computing 3. Cloud Computing models and characteristics 4. Cloud Computing Service Models 5. Cloud Computing Deployment Models 6. Virtualization and Cloud Computing 7. Cloud Computing Providers and Platforms 8. Red de distribución de contenidos CDN
2. Business perspective	Learn the features of Cloud Computing from a business perspective, demonstrating how these features increase value to the business entity.	1. Cloud Computing Business Value 2. Evolution trends 3. IT management leadership 4. Cloud Computing Strategic Considerations 5. Cloud Computing y Outsourcing 6. Case Study

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Module	Job Description	Required competencies
3. Technical Considerations	Understand the technical aspects of the public and private Cloud, identify the main technical concepts for Cloud Computing, recognizing the risks and challenges for the implementation of services and application architecture and development.	1. Public Cloud and Private Cloud 2. Technical concepts for Cloud Computing 3. Technical Challenges and Risks of Cloud Computing 4. Application architecture and development: general considerations
4. Adoption Could	Understand the roadmap that leads to a successful adoption of Cloud Computing services, understanding the roles and possibilities that are relevant to gaining benefits from the Cloud and identifying the method to migrate your applications to the Cloud.	1. Planning the roadmap for Cloud Computing adoption: strategy and indicators 2. Relationship with suppliers: considerations, roles, activities and recommendations 3. Preparing for Cloud Computing Adoption: organizational models and capabilities. 4. Application migration: considerations and recommendations
5. Operation Could	Understanding the impact and changes that Cloud Computing generates in the service management of organizations, such as service strategy, service design, service operation, service transition. Using the ITIL approach to develop a Cloud Computing service management.	1. Impact of Cloud Computing on IT Service Management (ITSM) 2. Relationship of Cloud Computing with ITIL®, DevOps Agile, Lean IT 3. Cloud Computing and service management

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Module	Job Description	Required competencies
6. Cloud Governance	Identify the challenges of integrating Cloud Computing into an organization's compliance and risk management frameworks, understanding the cost implications for measuring the success of Cloud Computing adoption projects.	1. Risk management and compliance in Cloud Computing 2. Considerations and recommendations for Cloud Computing governance 3. Financial management in Cloud Computing 4. KPI and ROI Models for Cloud Computing
7. Future of the Cloud	Know the future and trends of Cloud Computing, identifying the new technologies that will have an impact on the development of Cloud Computing.	1. Cloud Computing Trends 2. Emerging technologies impacting the development of Cloud Computing

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Evaluation of competencies

CertMind performs two types of assessment to ensure that the professional has the required competencies:

1. **Multiple choice questions with only one answer:** this evaluation modality consists of theoretical questions of multiple-choice single answer that seek to measure the degree to which the professional has understood the theoretical concepts of the certification.

2. **Case study:** It is structure is similar to that of the questions mentioned in the previous section, the difference being that, instead of asking about a particular concept, it presents a description of a situation that takes place in the real context and that must be analyzed by the professional in such a way that he/she can first identify the problem and then evaluate which of the options presented reflects the best solution to the problem situation.

Competition	Questions (1)	Case study (2)
Understand the concepts of Cloud Computing context, virtualization, market platforms and the Content Delivery Network CDN concept.	X	
Understand the importance of Cloud Computing in business.	X	
Identify and understand the considerations and technical aspects for the implementation of Cloud Computing services.		X
Demonstrate an understanding of the flow for successful adoption of Cloud Computing.		X
To understand the impact and changes generated by Cloud Computing on service management in organizations.	X	

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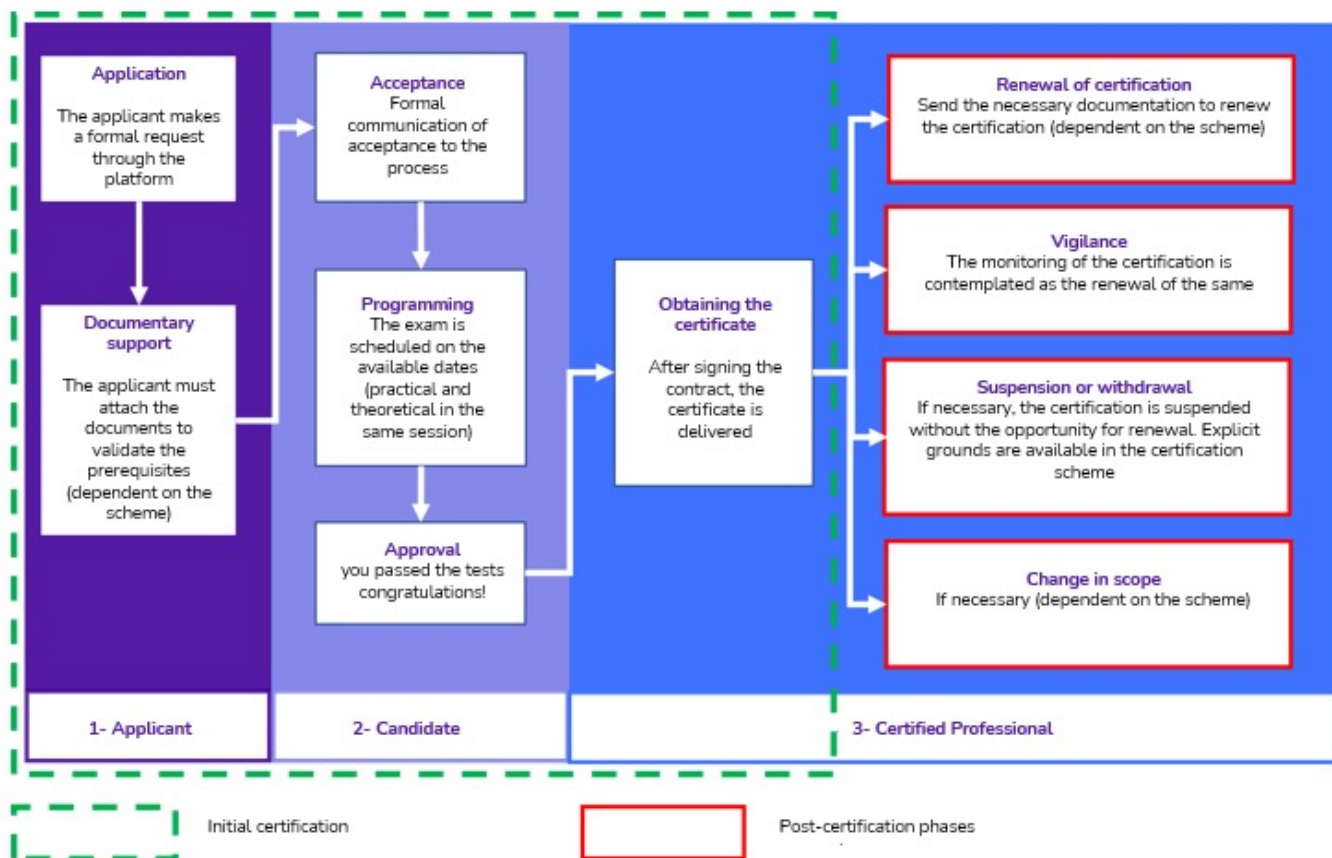| Competition	Questions (1)	Case study (2)
Understand the challenges of integrating Cloud Computing and the implications on the success of adoption projects.		X
Identify trends and new technologies that will have an impact on the development of Cloud Computing.	X	

Who should take this exam?

This exam is ideal for responsible individuals or teams seeking to understand the business potential that Cloud Computing and related technologies offer on the development of organizations.

Roles such as: I.T. personnel, business managers and analysts, leaders, I.T. specialists (security, infrastructure, services, information systems, testing, etc.), system developers and integrators, I.T. consultants and architects.

Certification process

The following chart shows the general life cycle for obtaining a certification:

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Initial certification — Post-certification phases

Each of the phases for obtaining certification for the first time is described below; the phases after obtaining the certificate (red-bordered boxes) will be explained later.

1. **Request for certification:** the applicant submits his or her certification application, on the QuizLab platform or through the partner company (where the applicant has taken his or her training). Once the application is approved, the applicant's profile is created in CertMind.

2. **Documentary support:** the applicant must attach in the CertMind platform his or her identity document and additionally complete the registration of his or her resume (CV).

3. **Verification and acceptance:** the platform verifies the applicant's compliance with the prerequisites, once verified, the application is accepted and the applicant becomes a candidate for the certification process.

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4. Programming: the call for the presentation of the exam is made, directly on the platform or through its representative. The format of the exam is explained below:

- **Type:** 40-question, multiple-choice, single-answer online test.
- **Duration:** 60 minutes.
- **Minimum passing grade :** 28/40 or 70%.
- **Additional time:** If the professional does not take the exam in his/her native language, he/she will have an additional 15 minutes and is also allowed to use a dictionary.
- **Supervision:** CertMind monitors the tests to ensure that they are performed correctly and transparently through the Invigilator Program (also known as "Proctor"). To learn more about this surveillance mechanism, please visit the following website www.certmind.org
- **Open book:** No.
- **Modality:** Available online only on the CertMind platform.
- **Validity :** 3 Years.
- **Others:** All applicants are required to read and accept the company's code of ethics and terms and conditions.

Levels of Difficulty: Bloom's Taxonomy

Bloom's Taxonomy is a theory known in the educational sector because many teachers consider it suitable for evaluating the cognitive level acquired in a subject. The objective of this theory is that after a learning process, the learner acquires new skills and knowledge. The following table presents a description of the categories of Bloom's taxonomy present in the certification exam, as well as a description of in the certification exam, as well as the percentage of each type of question in the exam.

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Module	Level 1	Level 2	Level 3
Description	Knowledge. It can comprise remembering a wide range of elements, from specific data to complete theory. But all that is needed is to bring to mind the appropriate information.	Compression. This can be demonstrated by passing, or translating, material from one form to another (words to numbers), interpreting the material (explaining or summarizing), and estimating future trends (predicting consequences or effects).	Application. Refers to the ability or capacity to use the material learned in concrete, new situations.
Percentage of questions present in the exam	50%	30%	20%

Note: For more information on the monitoring system visit our web site https://certmind.org.

5. Obtaining the certificate: once the exam is passed and the terms and conditions contract is accepted, the certification is delivered.

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Renewal, surveillance and withdrawal of certification

This phase occurs after the professional has obtained his or her certification. Renewal refers to the reissuance of the certification once its validity has come to an end. Surveillance refers to CertMind's supervision of the professional's performance during the period between certification and recertification to ensure compliance with the stipulations of this certification scheme. The activities that the certified professional must perform in order to obtain recertification are described below:

1. Application for recertification: before the certification becomes invalid, the certified professional submits his or her recertification application on the QuizLab platform. In case the certification loses its validity, the professional must go through the certification process again.

2. Registration of PUC's: the certified professional is required to register 20 PUC's every 3 years for certification renewal.

For more information about the Professional Update Credits (PUC) system visit our website https://certmind.org. The certified professional must attach the supports that accredit the PUC's in the CertMind platform.

3. Validation of documentation: the platform verifies compliance with the PUC's of the certified professional, once verified, the recertification application is accepted.

4. Obtaining recertification: Once the documents have been validated, the new certification is delivered.

Criteria for suspension or withdrawal of certification

Certification will be withdrawn from the professional in the following cases:

1. Failure to comply with the code of ethics.
2. Failure to comply with the requirements of the scheme.
3. Unsatisfactory results of the surveillance process.
4. Inability to continuously meet the competency requirements of the scheme.

Changes to the certification scheme

The Cloud Computing Fundamentals certification scheme does not contemplate changes in the scope as currently no extensions or reductions in the scope or level of the certification apply.

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