Postgraduate Certificate
Storage and Database Management in Cloud Infrastructures

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Posgraduate Certificate
Storage and Database Management in Cloud Infrastructures

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Technological University**
- Dedication: **16h/week**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/information-technology/postgraduate-certificate/storage-database-management-cloud-infrastructures

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01

Introduction

One of the most important aspects of Cloud Infrastructures are the numerous possibilities and features they offer in terms of Storage and Databases. But to enjoy all these advantages, companies require professionals who master the design and management of these cloud services. And this is the reason why TECH has created a program with which it seeks to provide its students with these skills, addressing topics such as Cloud Storage Use Cases, Types of Database Infrastructures or Database Security in Cloud, among many other aspects. All this in a 100% online mode that offers the most updated and dynamic theoretical and practical content possible.

Get to grips with the fundamentals and benefits of Cloud Storage in just a few weeks"

Cloud Infrastructures offer a huge number and variety of possibilities in the field of Storage and Databases. They have a flexibility and advantages that companies cannot let go unnoticed and that they have to take full advantage of. To do so, they need professionals who are experts in their use and management, who can get the most out of these tools in a quick and easy way.

For this reason, TECH has created a Postgraduate Certificate in Storage and Database Management in Cloud Infrastructures, to address the characteristics of these tools and make students acquire the ability to get the most out of them in the most efficient way. To this end, it delves into topics such as the Fundamentals of Cloud Storage, its Advantages, CloudStorage Use Cases, Database Classification, Big Data or Database Migration and Optimization, among other relevant aspects.

All this in a convenient 100% online mode, which offers students the possibility of combining their work and personal life with their studies, without time limits or the need to travel. In addition, with the guarantee of being able to enjoy the most complete multimedia content and the most updated information possible, which has been structured by renowned experts in the field.

This **Postgraduate Certificate in Storage and Database Management in Cloud Infrastructures** contains the most complete and up-to-date program on the market. The most important features include:

- Practical cases presented by experts in Storage and Database Management in Cloud Infrastructures
- The graphic, schematic, and practical contents with which they are created, provide practical information on the disciplines that are essential for professional practice
- Practical exercises where self-assessment can be used to improve learning
- Its special emphasis on innovative methodologies
- Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- Content that is accessible from any fixed or portable device with an Internet connection

Get to stand out in the Cloud Infrastructure sector in a short time and with total freedom of organization"

Get to know all the necessary elements to get the best performance from Cloud Databases"

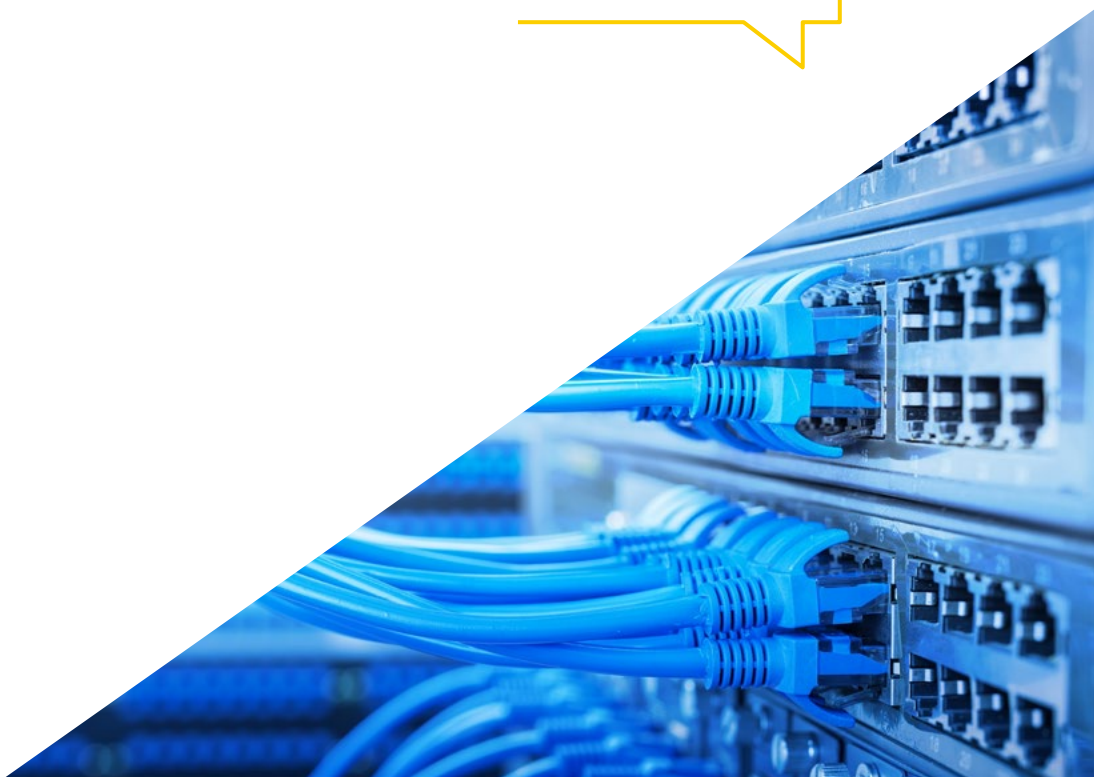
Deepen your knowledge and become an expert in Cloud Storage and Databases thanks to TECH.

Manage your time with total freedom and expand your knowledge in Cloud Data Storage, without affecting your daily activities.

The program's teaching staff includes professionals from the sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professionals with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professionals must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned experts.



02

Objectives

The objective of this program is to provide students with the necessary needs and skills to design, manage and extract the maximum performance from storage tools and databases in the cloud. All this, thanks to the latest and updated content, in addition to a variety of activities with which to put into practice the knowledge acquired.

Reach your most demanding work goals and boost your professional profile in one of the sectors with the brightest future"

General Objectives

- Develop specialized knowledge about what infrastructures are and what motivations exist for their transformation to the cloud
- Acquire the skills and knowledge necessary to implement and manage IaaS solutions effectively
- Acquire specialized knowledge to add or remove storage and processing capacity quickly and easily, enabling you to adapt to fluctuations in demand
- Examine the scope of Network DevOps, demonstrating that it is an innovative approach for network management in IT environments
- Understand the challenges faced by an enterprise in Cloud governance and how to address them
- Use security services in Cloud environments such, as Firewalls, SIEMS and threat protection, to secure applications and services
- Establish best practices in the use of Cloud Services and the main recommendations when using them
- Increase user efficiency and productivity: by enabling users to access their applications and data from anywhere and on any electronic device, VDI can improve user efficiency and productivity
- Gain specialized knowledge about Infrastructure as Code
- Identify key points to demonstrate the importance of investing in backup and monitoring in organizations

Specific Objectives

- Determine the features and benefits of cloud storage, the different cloud storage options (public, private, hybrid) and the selection of the appropriate storage option
- Develop specialized knowledge about cloud databases, advantages and disadvantages of databases in by the cloud, the different cloud database options (relational, non-relational) and how to select the right option
- Examine Cloud Database and Storage Design and Architecture: the principles of cloud database and storage design, cloud database and storage architectures, and common design patterns
- Manage cloud storage and databases: how to create, manage and monitor cloud storage and databases, how to backup and recover data in the event of loss
- Analyze security and privacy in the cloud: how to protect stored data and databases in the cloud, privacy and security policies and regulations in the cloud
- Compile use cases and examples of cloud storage and databases: examples of how cloud storage and databases are used different use cases of big data management, real-time data analytics, and integration of data from different sources
- Addressing scalability and performance in the cloud and how to optimize them in cloud applications

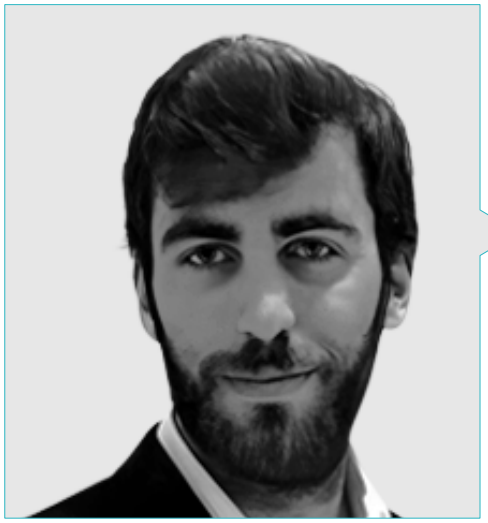
03

Course Management

This Postgraduate Certificate in Storage and Database Management in Cloud Infrastructures offers the highest quality education to students seeking a promising professional future in this area. And for this it has the outstanding professionals and teachers who are part of the team of experts in the field of TECH, who have poured all their experience and knowledge in the agenda and activities offered.

Get new and improved skills in Cloud Storage and Database Management, with the support of the best teaching team"

Management



Mr. Bressel Gutiérrez-Ambrossi, Guillermo

- Specalist in Systems Administration and Computer Networks
- Storage and SAN Network Administrator at Experis IT (BBVA)
- Network Administrator at IE Business School
- Graduate in Computer Systems and Network Administration at ASIR (ASIR)
- Ethical Hacking course at OpenWebinars
- Powershell course at OpenWebinar

Professors

D. Seijo Serrao, Pablo

- Storage technician for a consulting company providing service to BBVA
- Computer Systems Technician
- Senior Computer Systems Administration Technician

Take the opportunity to learn about the latest advances in this area to apply it to your daily practice"

04

Structure and Content

The structure and content of this syllabus have been designed by the team of experts in Storage and Database Management in the Cloud. All this, based on the most demanding requirements in terms of teaching and under the foundations of the pedagogical methodology of *Relearning*, which guarantees the best possible assimilation of the contents, in a natural, agile and accurate way.

A program that guarantees an optimal assimilation of the essential concepts of Cloud Storage, thanks to the pedagogical methodology of Relearning"

Module 1. Storage and Database Management in Cloud Infrastructures

1.1. Cloud Storage Infraestucture
- 1.1.1. Cloud Storage Fundamentals
- 1.1.2. Cloud Storage Advantages
- 1.1.3. Operation

1.2. Types of Cloud Storage
- 1.2.1. SaaS
- 1.2.2. IaaS

1.3. Cloud Storage Use Cases
- 1.3.1. Data Analysis
- 1.3.2. Backup and Archiving
- 1.3.3. Software Development

1.4. Cloud Storage Security
- 1.4.1. Security in the Transport Layer
- 1.4.2. Storage Security
- 1.4.3. Storage Encryption

1.5. Cloud Storage Analysis
- 1.5.1. Profitability
- 1.5.2. Agility and Scalability
- 1.5.3. Administration

1.6. Infrastructure of Cloud Database
- 1.6.1. Fundamentals of Databases
- 1.6.2. Analysis of Databases
- 1.6.3. Classification of the Databases in the Cloud

1.7. Types of Cloud Database Infrastructures
- 1.7.1. Relational Databases
- 1.7.2. Non-SQL Databases
- 1.7.3. Datawarehouse Databases

1.8. Cloud Database Infrastructure Use Cases
  1.8.1. Data Storage
  1.8.2. Data Analysis. IA .ML
  1.8.3. Big Data
1.9. Security/Safety of Cloud Database Infrastructures
  1.9.1. Access Control ACL, IAM, SG
  1.9.2. Data Encryption
  1.9.3. Audits
1.10. Migration and Backup of Cloud Database Infrastructures
  1.10.1. Backups of Databases
  1.10.2. Migration of Databases
  1.10.3. Optimization of Databases

Enhance your knowledge and skills in design and management of cloud storage tools, without time limits or the need to travel"

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

Case Study to contextualize all content

Our program offers a revolutionary approach to developing skills and knowledge. Our goal is to strengthen skills in a changing, competitive, and highly demanding environment.

At TECH, you will experience a learning methodology that is shaking the foundations of traditional universities around the world"

You will have access to a learning system based on repetition, with natural and progressive teaching throughout the entire syllabus.

The student will learn to solve complex situations in real business environments through collaborative activities and real cases.

A learning method that is different and innovative

This TECH program is an intensive educational program, created from scratch, which presents the most demanding challenges and decisions in this field, both nationally and internationally. This methodology promotes personal and professional growth, representing a significant step towards success. The case method, a technique that lays the foundation for this content, ensures that the most current economic, social and professional reality is taken into account.

> *Our program prepares you to face new challenges in uncertain environments and achieve success in your career"*

The case method has been the most widely used learning system among the world's leading Information Technology schools for as long as they have existed. The case method was developed in 1912 so that law students would not only learn the law based on theoretical content. It consisted of presenting students with real-life, complex situations for them to make informed decisions and value judgments on how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

What should a professional do in a given situation? This is the question that you are presented with in the case method, an action-oriented learning method. Throughout the course, students will be presented with multiple real cases. They will have to combine all their knowledge and research, and argue and defend their ideas and decisions.

Relearning Methodology

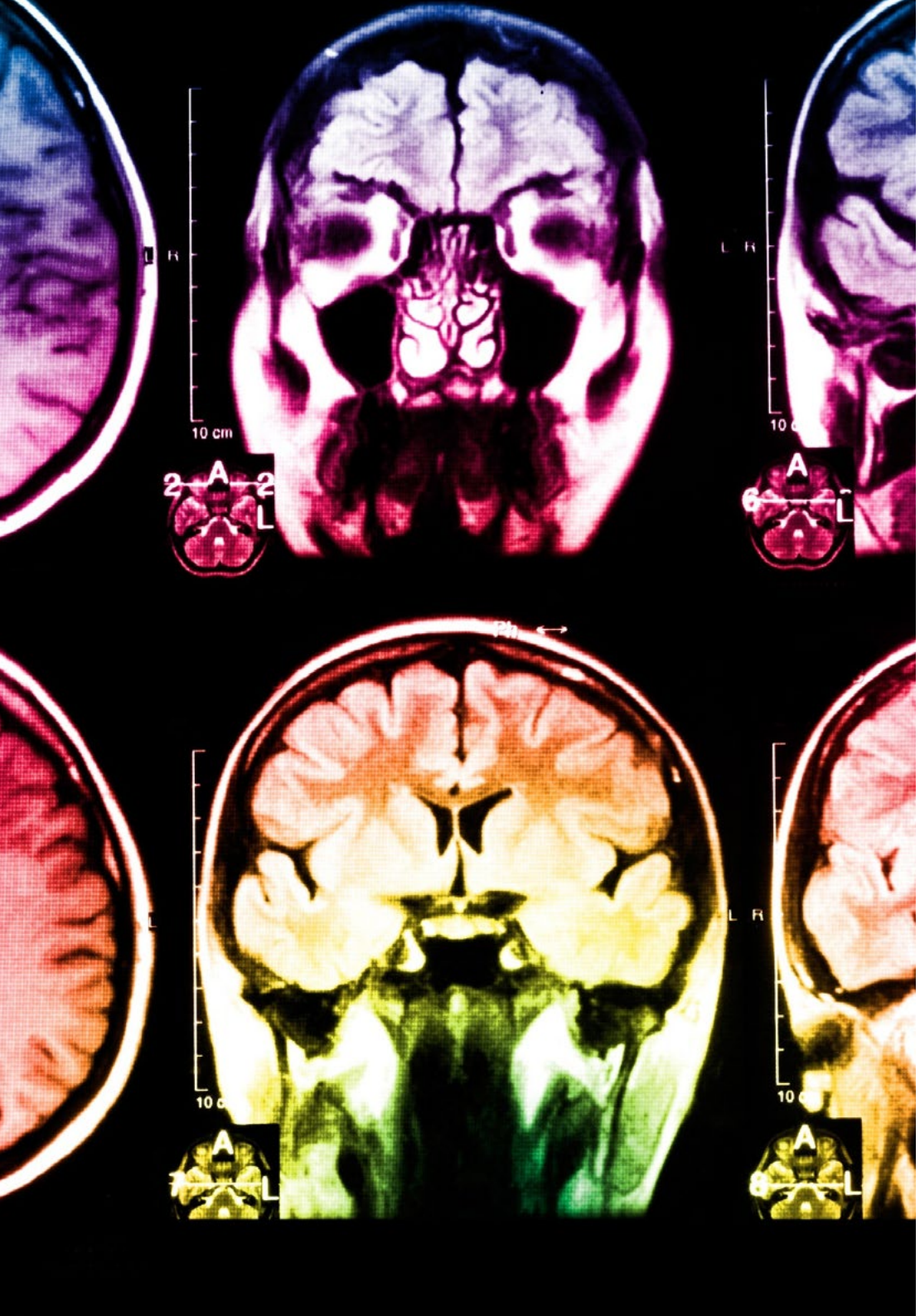
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

In 2019, we obtained the best learning results of all online universities in the world.

At TECH you will learn using a cutting-edge methodology designed to train the executives of the future. This method, at the forefront of international teaching, is called Relearning.

Our university is the only one in the world authorized to employ this successful method. In 2019, we managed to improve our students' overall satisfaction levels (teaching quality, quality of materials, course structure, objectives...) based on the best online university indicators.



In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically. This methodology has trained more than 650,000 university graduates with unprecedented success in fields as diverse as biochemistry, genetics, surgery, international law, management skills, sports science, philosophy, law, engineering, journalism, history, and financial markets and instruments. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Relearning will allow you to learn with less effort and better performance, involving you more in your training, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation for success.

From the latest scientific evidence in the field of neuroscience, not only do we know how to organize information, ideas, images and memories, but we know that the place and context where we have learned something is fundamental for us to be able to remember it and store it in the hippocampus, to retain it in our long-term memory.

In this way, and in what is called neurocognitive context-dependent e-learning, the different elements in our program are connected to the context where the individual carries out their professional activity.

This program offers the best educational material, prepared with professionals in mind:

Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.

Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

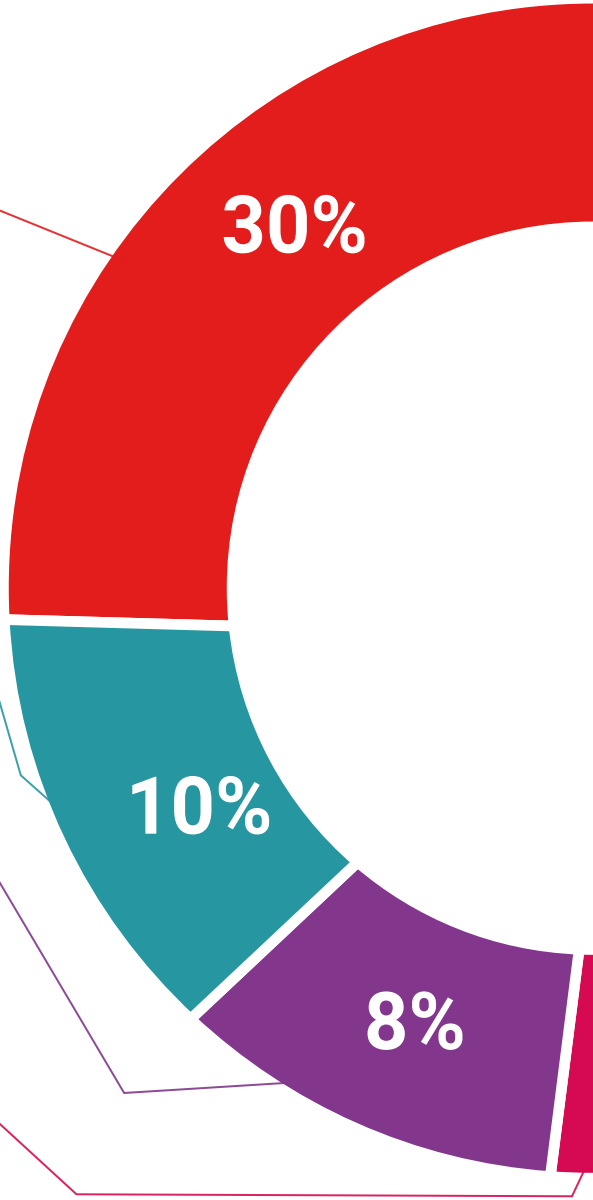
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

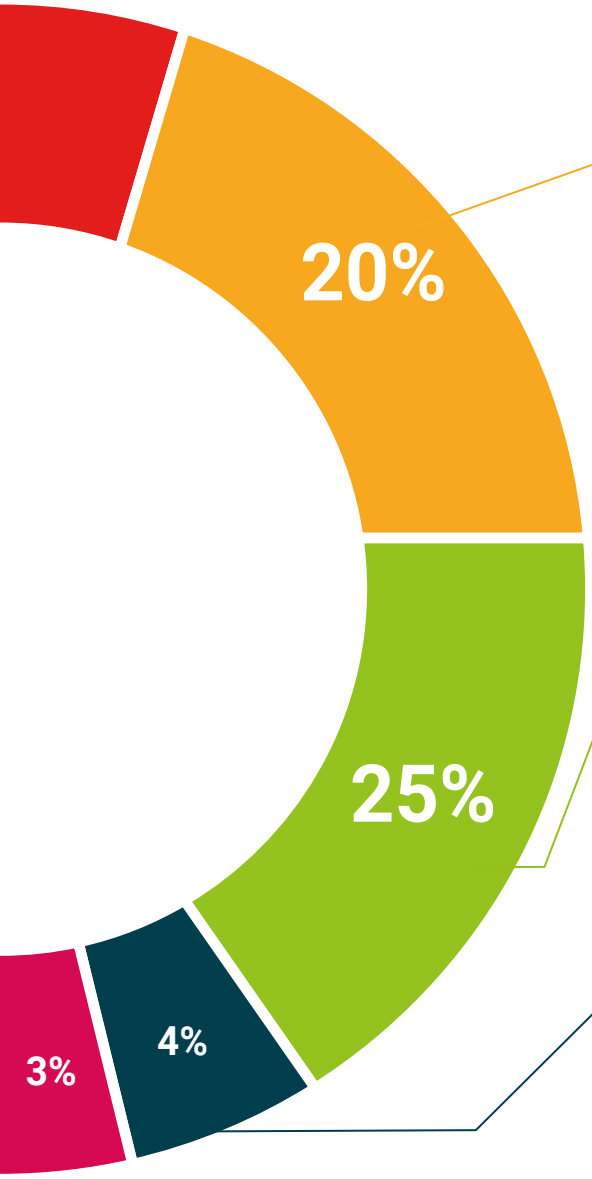
Practising Skills and Abilities

They will carry out activities to develop specific skills and abilities in each subject area. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop in the context of the globalization that we are experiencing.

Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Case Studies

Students will complete a selection of the best case studies chosen specifically for this program. Cases that are presented, analyzed, and supervised by the best specialists in the world.

Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

06

Certificate

The Postgraduate Certificate in Storage and Database Management in Cloud Infrastructures guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

This **Postgraduate Certificate in Storage and Database Management in Cloud Infrastructures** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Universidad Tecnológica** via tracked delivery*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Certificate, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Posgraduate Certificate in Storage and Database Management in Cloud Infrastructures**

Official Nº of hours: **150 h.**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Awards the following

DIPLOMA

to

Mr./Ms. _____, with identification number _____.

For having passed and accredited the following program

POSTGRADUATE CERTIFICATE

in

Storage and Database Management in Cloud Infrastructures

This is a qualification awarded by this University, equivalent to 150 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH is a Private Institution of Higher Education recognized by the Ministry of Public Education as of June 28, 2018.

June 17, 2020

Tere Guevara Navarro

Dean

Unique TECH Code: AFWORD23S techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

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