Postgraduate Certificate

Complete Web Application Practical Development

tech global university

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Postgraduate Certificate

Complete Web Application Practical Development

- Modality: **online**
- Duration: **6 weeks**
- Certificate: **TECH Global University**
- Credits: **6 ECTS**
- Schedule: **at your own pace**
- Exams: **online**

Website: www.techtitute.com/us/information-technology/postgraduate-certificate/complete-web-application-practical-development

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01

Introduction

Given the gigantic evolution that Web Applications have undergone, like all technology in the field of computers and the Internet, it is not surprising that computer companies are looking for a very specific professional profile, one that meets today's demanding requirements. Therefore, IT professionals with the most useful skills and knowledge of the most innovative procedures will be the ones to make their way in this competitive market. With this goal in mind, TECH has created this unique qualification for the development of a Complete Web Application, designed by experts with extensive experience in Software, Systems and Computing, and with 180 hours of exclusive didactic resources. A unique opportunity for progression through the largest digital university in the world.

You will design any type of Web Application from scratch. Enroll now in the best digital university in the world according to Forbes!"

Long gone are the days when companies only needed a developer to design a basic, easy-to-use website. The vast world is now much more complex, as are the applications and pages that are hosted on it. Now, it requires a computer scientist who has a deep understanding of the intricate process of creating applications, from the first sketch to its publication and monetization in a Marketplace, or to its approval by a company's top management. The important thing, in either case, is to possess outstanding skills for the development of this type of projects.

With this Postgraduate Certificate, the student will master the latest techniques to design, develop and manage secure and robust web applications. In other words, this Postgraduate Certificate offers the IT professional a unique opportunity to put their skills into practice, through the step-by-step guided creation of a web application.

The graduate will delve into the analysis of the requirements, the design of the architecture and the working environment, and will develop the application components using the best tools at his disposal. In this way, they will face the tasks of testing, deploying, maintaining and evolving the application in real environments, consolidating and expanding their skills. At the end of the course, the professional will be able to develop advanced web applications for their own projects or as part of a team.

A 100% online Postgraduate Certificate that will allow students to comfortably set their study schedule, wherever and whenever they want. You will only need an electronic device with internet access to access this academic proposal. All with the innovative Relearning system, based on the reiteration and repetition of key concepts to successfully internalize the knowledge.

This **Postgraduate Certificate in Complete Web Application Practical Development** contains the most complete and up-to-date program on the market. The most important features include:

- The development of practical cases presented by experts in Computer, Software, Systems
- The graphic, schematic and practical contents of the book provide theoretical and practical information on those disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out 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

This is an academic proposal with an eminently practical approach that will allow you to take part in Advanced Web Applications projects"

You will learn faster thanks to the innovative Relearning methodology, based on the repetition of key concepts"

You will master the latest techniques in design, development and management of the best web applications on the market.

You will work with the best companies in the IT industry. Bet on yourself and develop your own projects thanks to TECH!

The program includes in its teaching staff professionals from the sector who bring to this program the experience of their work, as well as recognized specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professional 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 professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, students will be assisted by an innovative, interactive video system created by renowned and experienced experts.

02

Objectives

The main objective of this exclusive Postgraduate Certificate is the complete and simple updating of the student in terms of Web Applications Practical Development. In this way, the student will deepen in the key aspects of planning and design of this type of projects and, in addition, will master the most useful tools for the maintenance and evolution of the application. All thanks to TECH's latest pedagogical technology, which includes the best didactic material and innovative multimedia content.

The case studies will allow you to test the different strategies used for successful Web Application Development"

General Objectives

- Generate specialized knowledge on advanced web architecture
- Address the development of the Back-end part of the web application, reviewing the available technologies, integration mechanisms such as APIs, message and event queues, deployment and optimization processes
- Develop the necessary steps for the creation of the Front-end of the web application, taking into account programming aspects as well as accessibility requirements, multi-language and multi-platform support
- Create personalized experiences, monitor and monetize the use of the website
- Consolidate application design and development best practices with a project management that favors continuous iteration, integration and deployment
- Analyze in depth the aspects related to the security of web applications, with special applications, with a special focus on the most common attacks and the prevention, detection and mitigation prevention, detection and mitigation mechanisms
- Review security recommendations and regulations
- Address security as one of the pillars of advanced web architectures
- Establish cloud computing as a growing alternative for the development and deployment of web applications
- Review key features and vendors, planning migration scenarios and incorporating new roles and processes into project management

Specific Objectives

- Practice the complete process of developing a web application
- Analyze requirements and make technological and managerial decisions
- Set up a development platform that can also be used for future projects
- Discover, through trial and error, the challenges of real work with web applications
- Validate the advantages of resiliency and observability-oriented design
- Monitor and maintain a real application
- Have a reference project for future projects

TECH has selected for you an excellent teaching team specialized in Software, Computing and Systems"

03

Course Management

One of the main pillars of this Postgraduate Certificate is its faculty. For their selection, TECH has taken into account their professional and academic experience in Software, Computing and Systems projects. In this way, students have the guarantee of access to a syllabus prepared and developed by an excellent team that will bring the graduate the most advanced and current techniques and tools to successfully develop a complete Web Application.

TECH has selected for you an excellent teaching team specialized in Software, Computing and Systems"

Management

Dr. Pantaleón García del Valle, Eduardo

- Solutions Architect at Amazon Web Services (AWS)
- Solutions Architect at Liferay, Inc
- Technical Manager at Jungheinrich AG
- Senior Software Engineer and Team Manager at Liferay
- Project Manager at Protecmedia
- Organization and delivery of online technical webinars within the AWS Customer Proficiency Plan program
- Member of the Alumni Mentoring program at Carlos III University of Madrid, for career advice to students and recent graduates
- Graduated in Telecommunication Engineering from Carlos III University of Madrid
- PhD in Software, Systems and Computing from the Polytechnic University of Madrid
- Master's Degree in Computer Languages and Systems from the National University of Distance Education (UNED)
- Executive Data Science Specialization from Johns Hopkins University

04

Structure and Content

The curriculum of this university degree consists of an extensive virtual library, made up of video summaries, videos in detail, specialized readings and case studies, accessible 24 hours a day, 7 days a week. In this way, and thanks to the theoretical-practical approach of this Postgraduate Certificate, the graduate will achieve advanced learning that will be very useful for his or her professional performance in top-level technology companies.

Delve, when and where you want, into the most advanced Postgraduate Certificate Course on Building an Advanced Web Application"

Module 1. Building an Advanced Web Application

1.1. The Application
- 1.1.1. Application Presentation
- 1.1.2. Requirements
- 1.1.3. Stakeholders

1.2. Planning and design
- 1.2.1. Methodology Choice
- 1.2.2 Development and Training Plans
- 1.2.3 Designing the Architecture

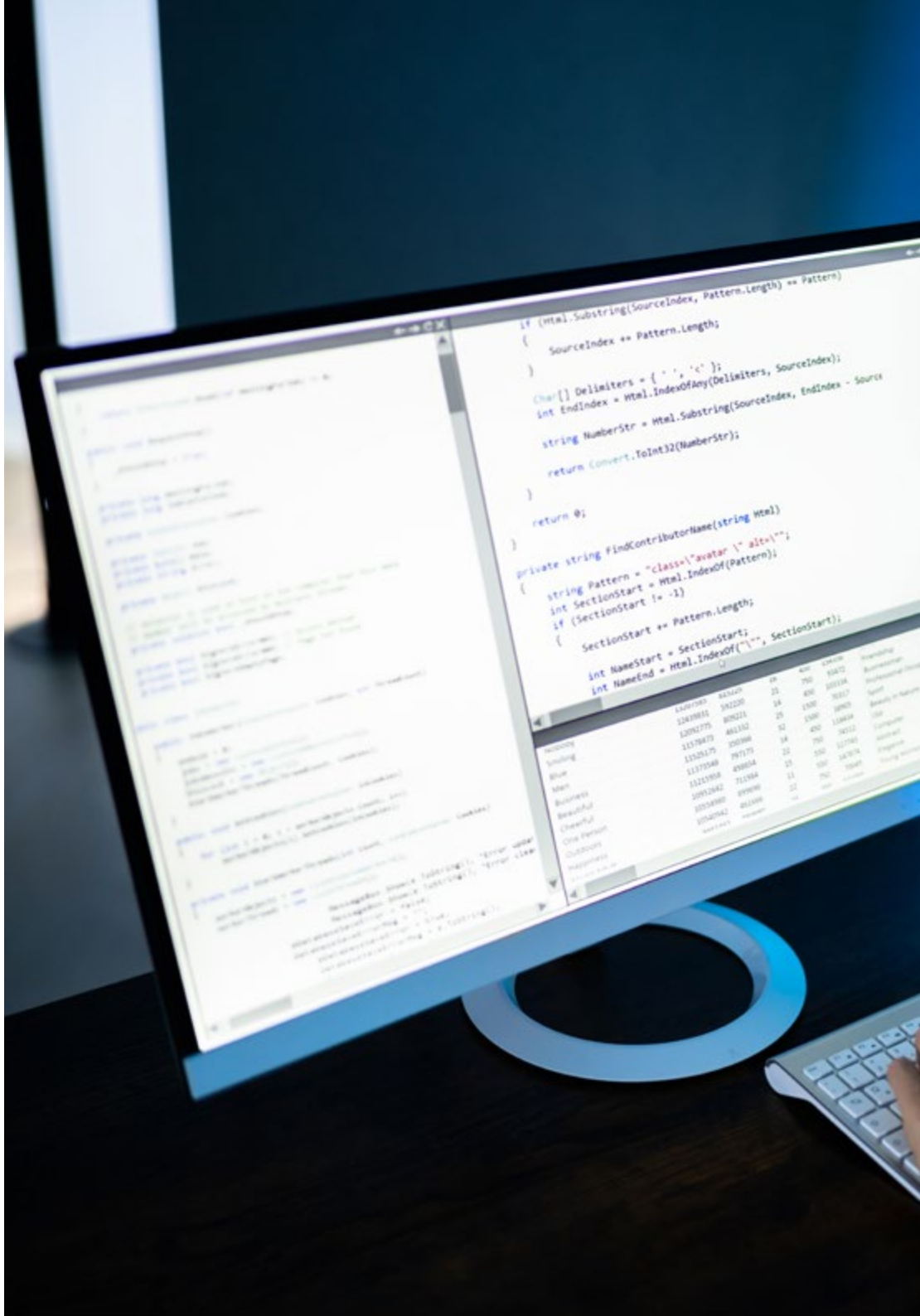
1.3. Settings of the Development Platform
- 1.3.1 Development Platform Choice
- 1.3.2 Environment configuration
- 1.3.3 Version Control Systems

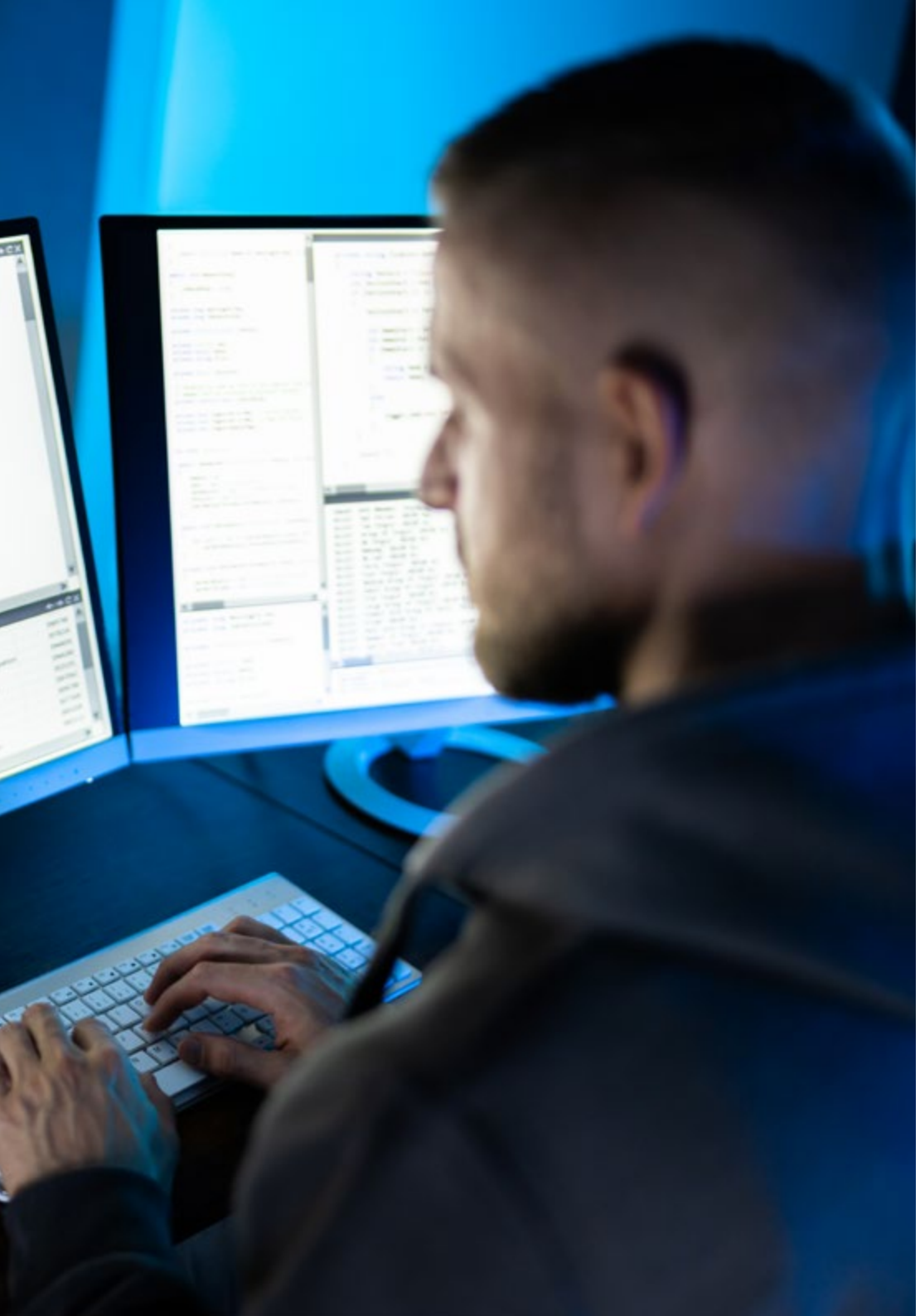
1.4. Front-end development
- 1.4.1. Technology choice
- 1.4.2. Implementation
- 1.4.3. Unit Tests

1.5. Back-end development
- 1.5.1. Technology choice
- 1.5.2. Implementation
- 1.5.3. Unit Tests

1.6. Data Storage Implementation
- 1.6.1. Technology choice
- 1.6.2. Data Model
- 1.6.3. Implementation

1.7. User Management and Security/Safety
- 1.7.1. User Management Models
- 1.7.2. Implementation
- 1.7.3. Application of Security Policies





1.8. Continuous Integration and Deployments
- 1.8.1. Integration test plan
- 1.8.2. Creation of a CI/CD Pipeline
- 1.8.3. Deployment of the application with IaaC

1.9. Maintenance Tasks
- 1.9.1. Application monitoring: costs, resource consumption, etc
- 1.9.2. Incident responseIncident Response
- 1.9.3. Deployment of an application fix

1.10. Application evolution
- 1.10.1. Business Date analysis
- 1.10.2. Improvements
- 1.10.3. Planning and deployment of new versions

With this Postgraduate Certificate you will be up to date with the strategies to check the evolution in the development of an Application and complete it with guarantees"

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

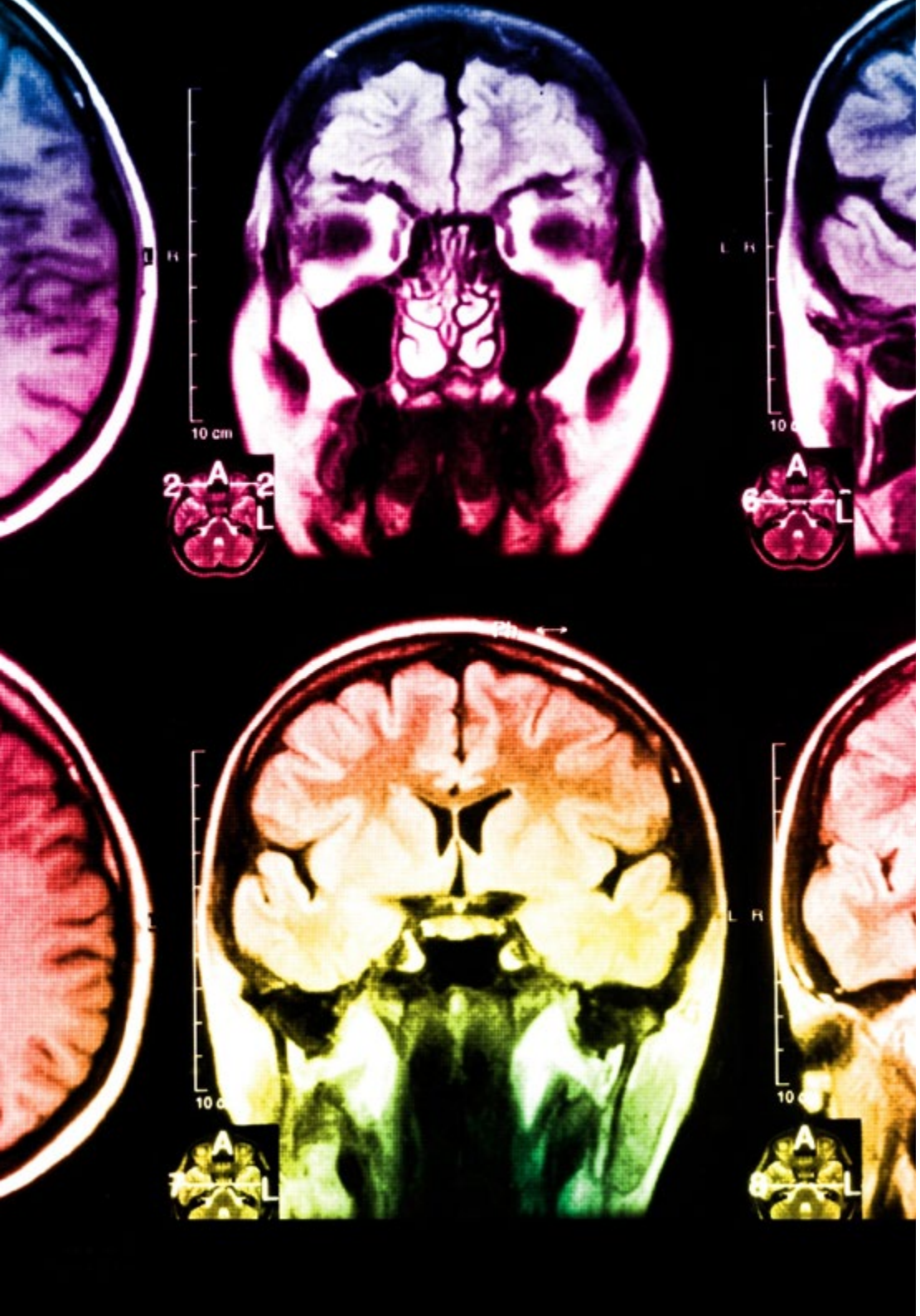
TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines different teaching elements in each lesson.

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.

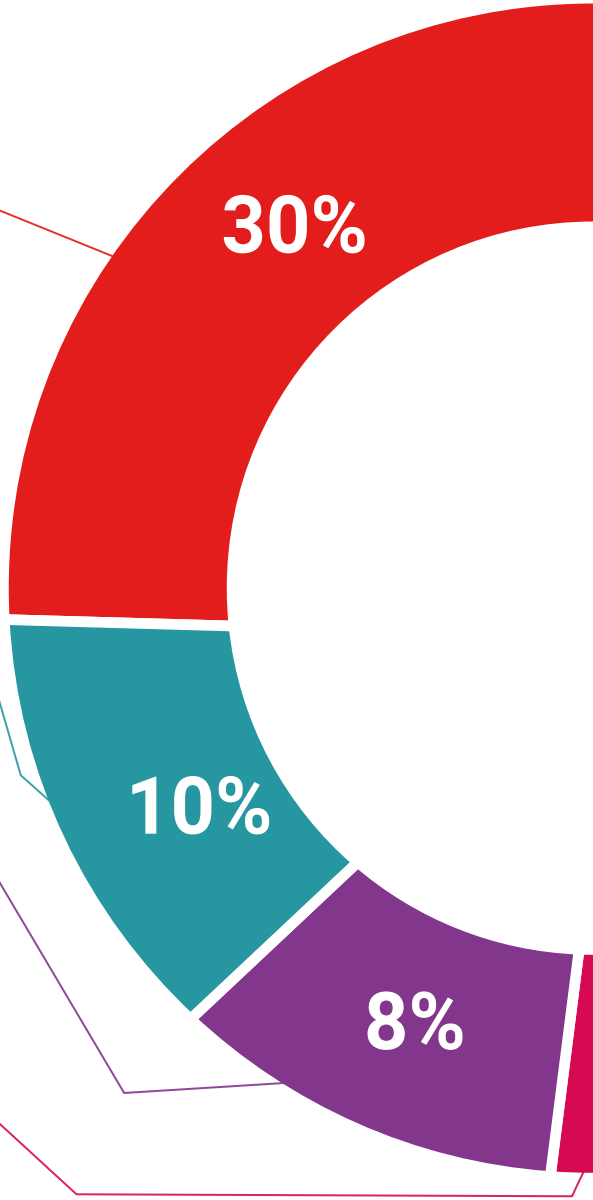
Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.

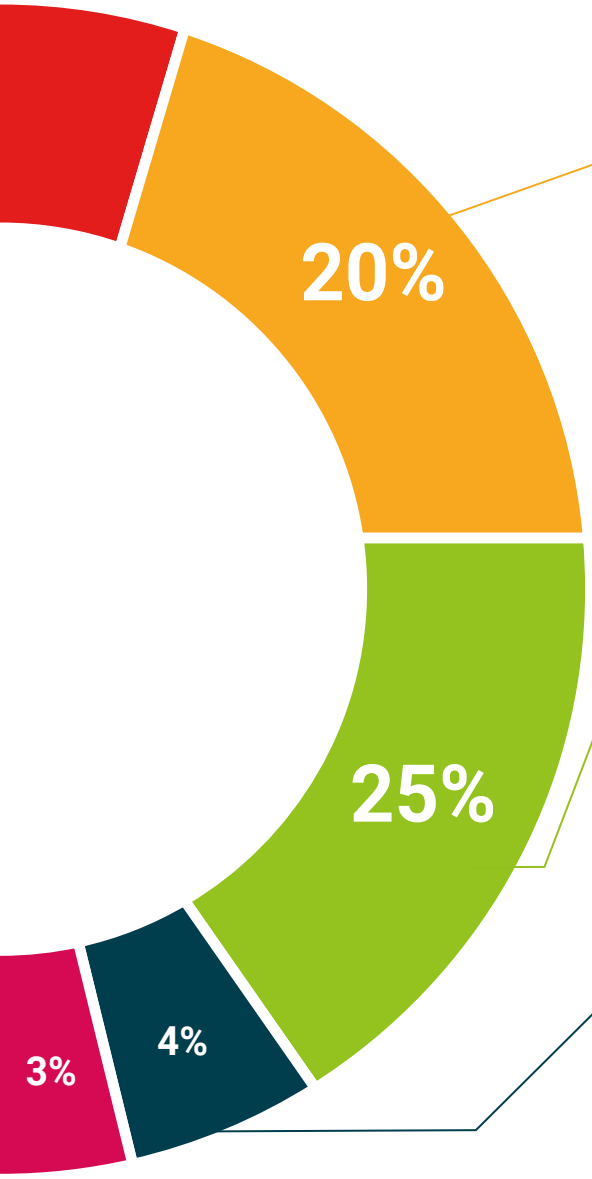
Practising Skills and Abilities

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 Complete Web Application Practical Development guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

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

This program will allow you to obtain your **Postgraduate Certificate in Complete Web Application Practical Development** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra (***official bulletin***). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Complete Web Application Practical Development**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**

tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Certificate in Complete Web Application Practical Development

This is a program of 180 hours of duration equivalent to 6 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

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 Global University will make the necessary arrangements to obtain it, at an additional cost.

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