





# Professional Master's Degree Website Management Engineering

Modality: Online
Duration: 12 months

Certificate: TECH Technological University

Official No of hours: 1,500 h.

Website: www.techtitute.com/pk/information-technology/professional-master-degree/master-website-management-engineering

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Introduction This high-level program offers specialized knowledge to help professionals create, manage, evaluate and monetize a large-scale website from a global perspective and manage the stages involved in website management. Students will be able to build advanced knowledge to develop a proprietary web engineering project, allowing them to work on their own for other clients or design and develop their own project to go to the market to generate income. As it is such a heterogeneous program, this specialization program provides students with very specific knowledge in a range of areas such as IT security, project management, web server administration, and even web site design and architecture.



## tech 06 | Introduction

We live in the so-called digital era, which means staying hyper-connected with all kinds of devices. The Internet world has evolved at an unstoppable pace in recent years, so the demand for websites increases every day.

Designing a website necessitates professionals who can cover not only the projection of the initial idea, but also the development of the website in a safe, user-friendly and legally compliant way.

It is, therefore, a Professional Master's Degree in Website Management Engineering, which builds advanced knowledge in web programming languages, website engineering and architecture, addresses web security systems, web services administration as well as ethical and legal aspects of the web. It also offers the most up-to-date tools for the fast and secure implementation of projects.

The Professional Master's Degree in Website Management Engineering differs from other specialization programs in three fundamental respects: its comprehensibility, given the complexity of the topics addressed, the authors' experience and the in-depth coverage of the topics.

This Professional Master's Degree has been created by a team of expert teachers with multi-faceted skillsets and a wealth of experience and specialized knowledge in their respective fields. As it is a 100% online program, the student will not have to neglect their personal or professional commitments. Upon completion of the program, students will have updated their knowledge and will be in possession of a highly prestigious Professional Master's Degree that will allow them to advance personally and professionally.

This **Professional Master's Degree in Website Management Engineering** contains the most complete and up-to-date educational program on the market. The most important features include:

- The development of case studies presented by Website Management Engineering experts
- The graphic, schematic, and practical contents which they contain, provide scientific and practical information on the disciplines that are essential for professional practice
- Practical exercises where self-assessment can be undertaken to improve learning
- A 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



An intensive professional growth program that will allow you to operate in a sector with a growing demand for professionals"



In this Professional Master's Degree, you will be able to balance the efficiency of the most advanced learning methods with the flexibility of a program that is designed to be adapted to your schedule, without sacrificing quality"

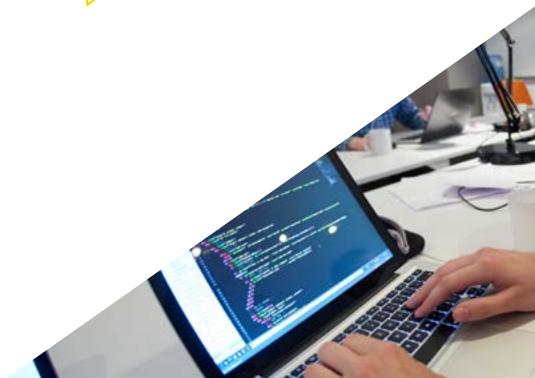
The program's teaching staff includes professionals from the sector who contribute their work experience to this degree program, as well as renowned specialists from leading societies and prestigious universities.

The 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 immersive learning designed for real situations.

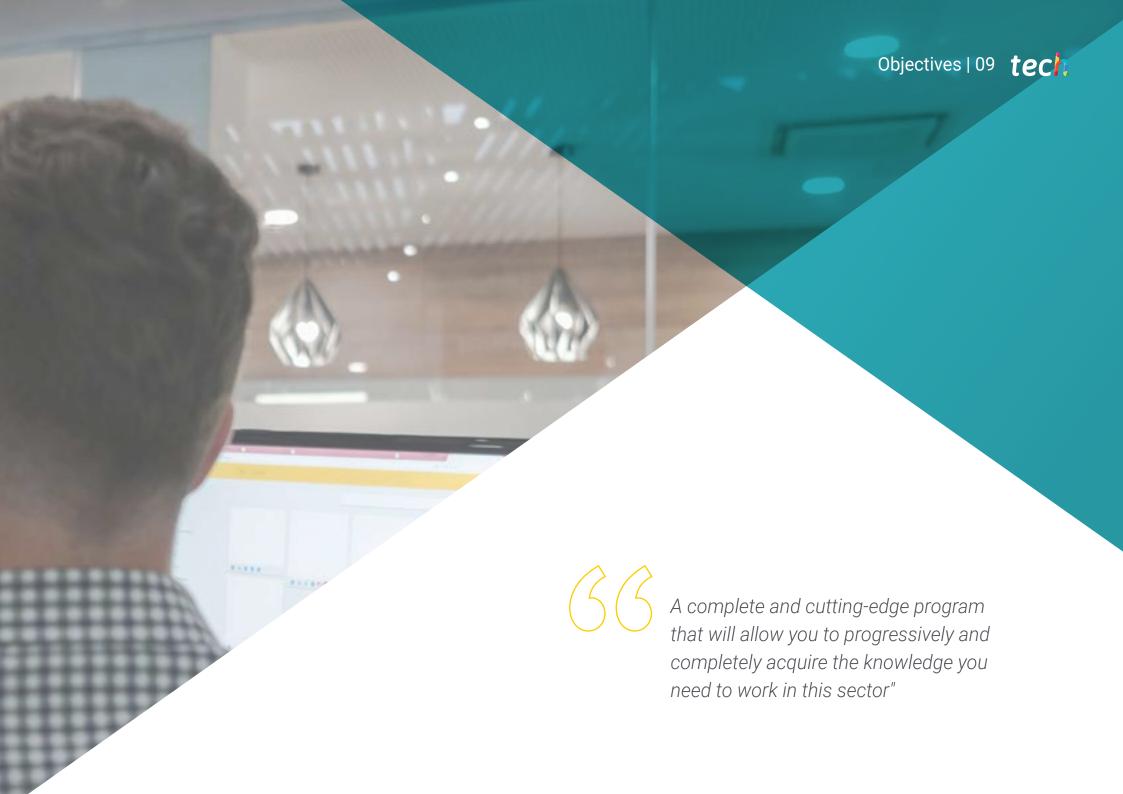
This program is designed around Problem-Based Learning, whereby the professional must try to resolve the different professional practice situations that arise during the academic year. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

Comprehensive yet focused; this program will provide you with the specific knowledge IT professionals need to compete among the best in the sector.

Deepen your knowledge in the field of computer technologies by including in your area of expertise the most advanced aspects of this line of work.





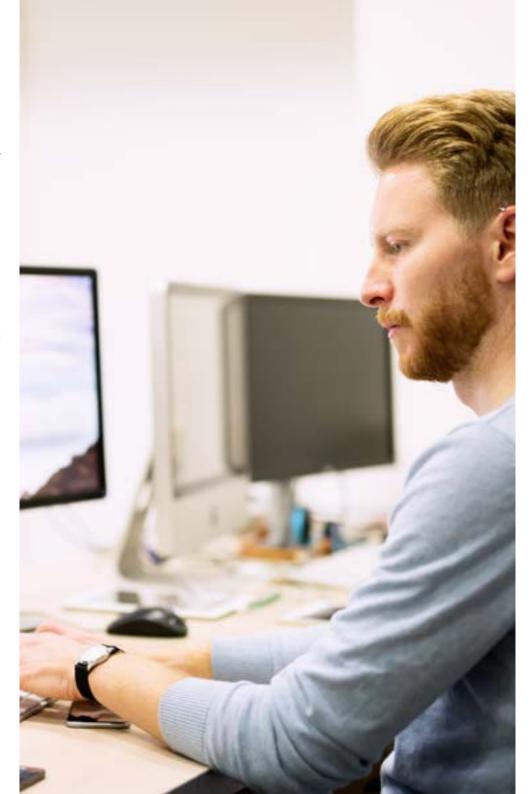


# tech 10 | Objectives



#### **General Objectives**

- Examine the characteristics of agile project management and determine the differences with predictive or traditional approaches
- Assimilate the key principles of agile mindset and practice
- Analyze the different agile methodologies and determine the best framework to adopt according to project characteristics
- Initiate, plan, execute, monitor, and close an agile project
- Lead and differentiate the roles of an agile team and recommend strategies for overcoming the challenges faced by dispersed or offshore agile teams
- Examine the process of creating web content using HTML markup language
- Determine the style and improve the appearance of a web page using CSS rules
- Develop applications with complex structures by using the different procedures, functions and objects that integrate JavaScript
- Generate specialized knowledge about PHP for the implementation of server-side applications
- Examine logical data model construction
- Examine web architecture, fitting it into the context of web and application development
- Generate specialized knowledge on the creation of web architecture and its implication in the success of the project
- Analyze the types and phases of web architecture, their advantages and applications
- Establish the relationship between web architecture and other web development phases and SEO processes





- Address the most relevant aspects of web security
- Analyze the most detected and exploited web vulnerabilities at a global level and how to prevent them
- Establish guidelines to perform web audits to detect and prevent such risks and vulnerabilities
- Establish a security incident response process since, as we will see, a 100% secure environment does not exist
- Analyze the importance of user experience as an area that successfully encompasses technology, design and interaction
- Implement user experience design phases
- Apply the main research tools, methods and techniques to design user-centered digital experiences
- Create attractive, usable and accessible digital environments to offer satisfactory user experience
- Develop specialized knowledge to create an e-commerce business from scratch
- Analyze databases and programming structures

- Develop a complete e-commerce store
- Examine successful marketing strategies
- Determine how to conduct promotional campaigns
- Perform analysis and metrics compressions
- Establish a strategy for a web environment under development and production
- Install and manage a complete web hosting service
- Fully optimize production web hosting services
- Develop Backups and a secure environment against external attacks
- Identify and solve problems and adversities in real environments
- Examine the context of content managers in web projects
- Develop specialized knowledge about the uses, functionalities and types of content managers
- Establish the advantages and disadvantages of using content management systems
- Analyze the main content management systems on the market

## tech 12 | Objectives



#### Module 1. Agile Methodologies for Web Application Development

- Determine key elements in business cases, product vision and user stories
- Plan iterations based on team speed and iteration length
- Gather and prioritize requirements for agile projects
- · Recognize guidelines for decomposing, estimating, and assigning user stories
- Develop agile practices to manage project quality and risk
- Calculate cost and schedule performance indicators for agile projects
- Analyze the keys to contracting for agile projects
- You will use tools and strategies to actively engage stakeholders throughout the life of a project
- Examine the leadership strategies of high-performing self-managed teams

#### Module 2. Web Programming Languages

- Integrate applications developed in PHP with MySQL databases
- Master customer interaction process using forms, cookies and sessions
- Gain specialized knowledge of web application and web page development, both on the client and server side
- Examine web programming languages and their implementation in development environments
- Analyze the different frameworks and libraries for the main web programming languages
- Determine the different optimization techniques to be considered during the development of any web project

#### Module 3. Website Engineering and Architecture

- Assess the origin of web architecture and its role in web site development
- Examine the three pillars of web architecture to recognize the importance of each when designing and building web projects
- Develop the different types of web architecture, their advantages and suitability
- Evaluate the stages that make up the web architecture, the correlation between them and their development
- Optimize the relationship between web architecture and user experience and the relationship between web architecture and SEO
- Analyze browsing and content organization prior to the modeling phase

#### Module 4. Website Security Systems

- Analyze the OWASP Top 10 project
- Manage CMS Environment Security
- Check the differences between the different authentication methods
- Determine the most common vulnerabilities found in web applications
- Identify the different attacks and risks in APIs
- Analyze the different HTTP headers in terms of security
- Distinguish the different types of web audits that we can establish
- Evaluate web vulnerabilities associated with communications

#### Module 5. User Interface Design and Programming

- Detect user needs and behavioral patterns on the web
- Interpret analytical data to make business decisions
- Apply different user-centric marketing methodologies and tools
- Identify and implement usability principles to design effective and efficient applications
- Consider potential user disabilities to provide an accessible environment
- Develop the different theories, principles and types of web design
- Detail the different prototyping methods
- Anticipate interface errors and learn how to react when they occur
- Organize and prioritize information on the web
- Offer an intuitive browsing experience to users
- Gain a vision of UX Writing beyond writing
- Establish the relationship between user experience and organic positioning (SEO)
- Determine the objectives and the process to develop style guides

#### Module 6. e-Commerce Creation and Administration

- Develop the structure for the creation of an e-commerce store
- Assess the professional e-commerce market
- Analyze the different options that exist to grow an e-commerce business
- Set up an online store using the different CMSs currently available on the online market
- Analyze the logistic and functional system as well as virtual payment systems
- Carry out a comprehensive marketing strategy and roadmap
- Develop online promotions and create traffic to the store
- Manage sales and customers
- Seek full search engine optimization
- Build a complete store from the ground up to the first sales

## tech 14 | Objectives

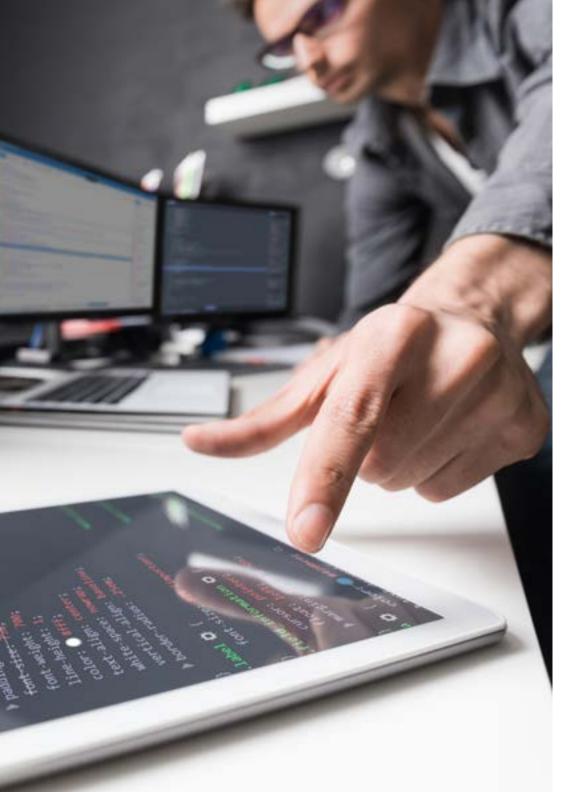
#### Module 7. Web Server Administration

- Develop a real high-availability working environment
- Determine the necessary parameters to create a cloud hosting service
- Examine the different versions of operating systems that best suit your needs
- Determine a web administration environment focused on external customers
- Set up configurations for private/public networks
- Create a complete hosting service for any type of website or platform
- Examine security settings for Anti-malware, viruses, brute force attacks and others
- Analyzing a high security backup system with redundancy
- Identify and solve problems in real environments

#### Module 8. Web Content Managers

- Identify the different types of content management systems and their tools
- Evaluate the best content manager according to the web project scope
- Analyze and delve deeper into the main resources used by content managers and their implications
- Establish the relation between content management systems and web project modeling
- $\bullet$  Demonstrate the importance of content managers in SEO practice
- Compare different content management systems, their features and applications





#### Module 9. Website Marketing

- Determine the project business objectives
- Identify the target audience
- Interpret analytical data to make business decisions
- Apply different user-centric marketing methodologies and tools



A comprehensive and highly relevant course for the IT professional, which will allow you to compete among the best in the industry"

# 03 Skills

Upon passing the assessments of the Professional Master's Degree in Website Management Engineering, the student will have acquired the professional skills necessary to perform quality work in the field of information technology and, in addition, will have acquired new skills and techniques that will help them to complement the knowledge that they already possess, placing them at the forefront of modern developments.

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# tech 18 | Skills

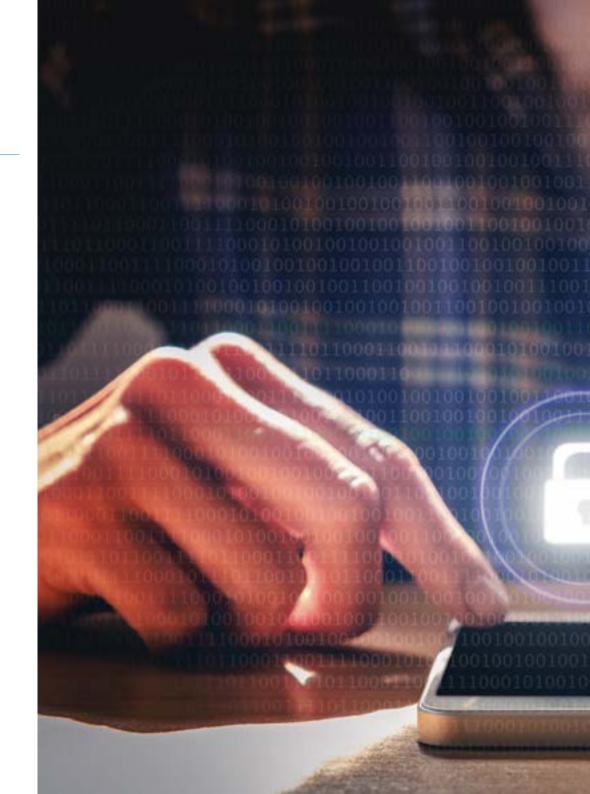


#### **General Skills**

• Respond to the demands of Website Management Engineering



A high-quality Professional Master's Degree that will allow the student to advance quickly and steadily in the acquisition of knowledge, with the scientific rigor world class education"

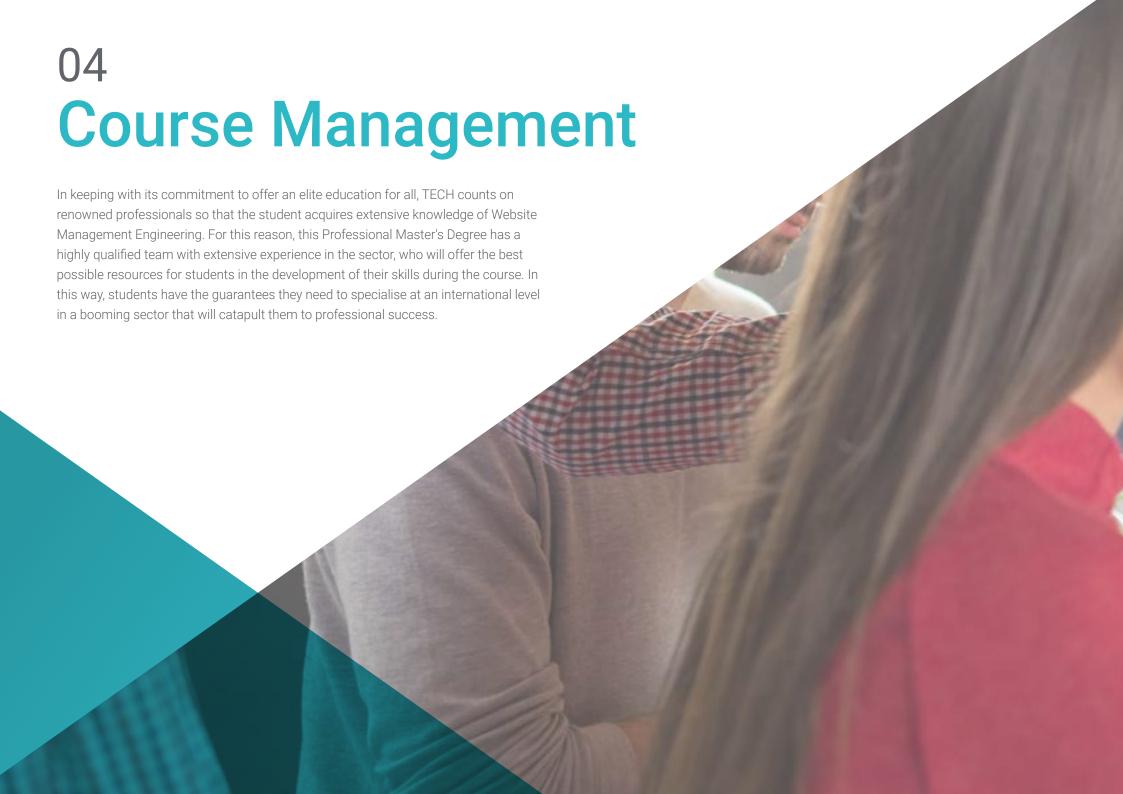






### **Specific Skills**

- Develop applications with complex structures by using a range of procedures
- Create attractive, usable and accessible digital environments to offer satisfactory user experience
- Classify the types of web sites according to their legal nature and the laws that affect them
- Analyze the different agile methodologies and determine the best framework to adopt according to project characteristics
- Analyze the types and phases of web architecture, their advantages and applications
- Perform analysis and metrics compressions
- Install and manage a complete web hosting service





# tech 22 | Course Management

#### Management



#### Mr. Gris Ramos, Alejandro

- Director of Persatrace, web development and digital marketing agency
- Director of Club de Talentos
- Computer Engineer UNED
- Master's Degree in Digital Teaching and Learning Tech Education
- Master's Degree in High Abilities and Inclusive Education
- Business Development Director at Alenda Golf
- Director of Web Applications Engineering Department at Brilogic
- Web programmer at Grupo Ibergest
- Software/web programmer at Reebok Spain

#### **Professors**

#### Mr. Alfaro, José

- Team Leader en DisneyLand Paris
- Journalism Graduate
- Course in Project Management Methodologies

#### Mr. Boix Tremiño, Jorge

- Founder of HostingTG, professional web hosting services company
- Founder of GrupoTG, a digital marketing and web design services company
- Co-Founder of TiendaWebOnline, a business creation company Digital Dropshipping
- Nortempo, trainer in the field of programming and marketing strategies
- Intergon2000, Graphic designer
- Ibertex, Graphic designer
- Xion Animation, Information technology project manager
- Kingest, Sales and marketing director Intergon2000, Graphic designer
- Computer Engineer from U.N.E.D.
- Award for Business Excellence from the Institute for Professional Excellence Institute for Professional Excellence
- European Medal of Merit in the Workplace for Professional Career Achievement from the European Association for Economics and Competitiveness
- Golden for Professional Excellence from the Institute for Professional Excellence

#### Mr. Del Moral García, Francisco José

- Degree in Telecommunication Technologies Engineering, University of Granada Specialty: Telecommunication Systems
- Master's Degree in IT Security, International University of La Rioja
- Roca Sanitario (Cyber Security Analyst)
- Allianz Technology (Information Security Analyst)
- Clover Technologies (IT Security Airbus Defence and Space)
- EVERIS (Solutions Assistant)

#### Mr. Herrero Garcia, Diego

- Computer Applications Analyst, Manager and Developer
- Industrial Technical Engineer, University of La Rioja
- Industrial Engineer, University of La Rioja
- Expert Diploma in Innovation Management, University of La Rioja

#### Mr. Méndez Martínez, Brandon

- Web design and development HIADIS Graduated in Multimedia Engineering, University of Alicante
- Natural Language Processing (NLP) GPLSI (University of Alicante)
- Master's Degree in Web Services and Applications Development from the University of Alicante
- "Analysis of gamification techniques to learn complex subjects through collaborative applications" - Technical Committee on Learning Technology Bulletin
- "Grama: a web application for learning and generating creative language" -INTED2017 Proceedings
- Research in Human Language Technologies (TLH) GPLSI (University of Alicante)

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#### Mr. Vicente Miralles, David

- (CSO) Head of Expansion Strategies at 'ICU Medical Technologies'
- (CEO) Executive Director / Co-Founder at 'CE Informática'
- Professor / Trainer in private entities
- Diploma in Technical Computer Engineering from Miguel Hernández University of Elche
- Development Engineer at 'Computer Elche' (COO)
- (COO) Operations Manager at 'VinoTrade 1944'

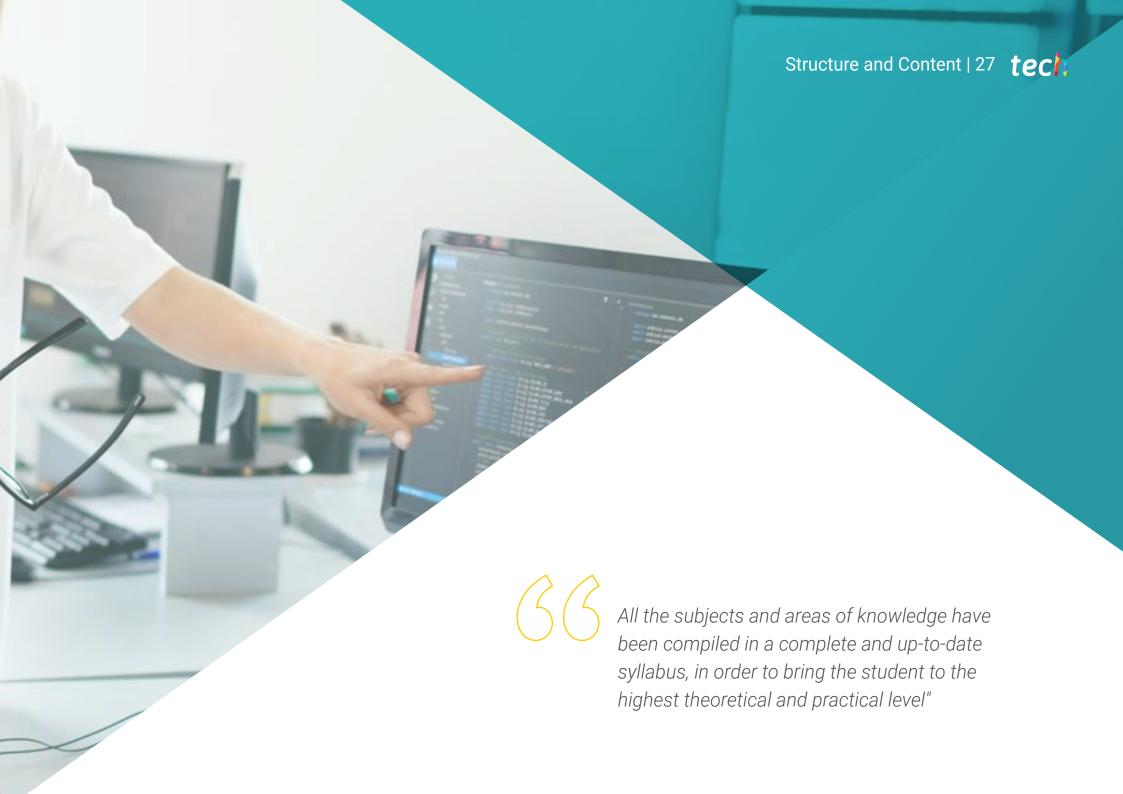




Don't miss the opportunity to study with the best teachers in the sector"







### tech 28 | Structure and Content

#### Module 1. Methodologies for Web Application Development

- 1.1. Agile Project Management: Basis for Web Application Development
  - 1.1.1. The Agile Approach
  - 1.1.2. Agile Values and Principles
  - 1.1.3. Traditional and Agile Project Management
  - 1.1.4. Agile Project Management Models
  - 1.1.5. Agile Methodologies
- 1.2. Using an Agile Approach for Web Application Development
  - 1.2.1. Myths and Realities Regarding Agility
  - 1.2.2. Agile Practices
  - 1.2.3. Selecting Agile Practices for a Project
  - 1.2.4. Developing an Agile Mentality
  - 1.2.5. Implementing and Communicating the Adoption of Agile Principles
- 1.3. Agile Methodologies for Web Application Development
  - 1.3.1. Lean Development
  - 1.3.2. Extreme Programming (XP)
  - 1.3.3. Crystal Methods
  - 1.3.4. Feature-Driven Development (FDD)
  - 1.3.5. Dynamic Systems Development Method (DSDM) and Unified Agile Processes
- 1.4. Agile Methodologies for Advanced Web Application Development
  - 1.4.1. Kanban Method
  - 1.4.2. Scrum and Scrumban
  - 1.4.3. DA Disciplined Agile
  - 1.4.4. Hybrid Methodologies
  - 1.4.5. Comparing Agile Methodologies





### Structure and Content | 29 tech

- 1.5. Web Development Projects: Planning Process
  - 1.5.1. Starting an Agile Project
  - 1.5.2. Agile Planning Process
  - 1.5.3. Gathering Requirements and User History
  - 1.5.4. Establishing Project Scope Using Agile Methods: Product Backlog
  - 1.5.5. Agile Tools to Prioritize Requirements
- 1.6. Stakeholders in Agile Projects for Web Application Development
  - 1.6.1. Stakeholders in Agile Projects
  - 1.6.2. Promoting Effective Participation among Stakeholders
  - 1.6.3. Participatory Decision-Making
  - 1.6.4. Agile Knowledge Sharing and Gathering
- 1.7. Launch Plan and Estimate Creation
  - 1.7.1. Launch Plan
  - 1.7.2. Estimating User History Size
  - 1.7.3. Estimating Speed
  - 1.7.4. Agile Estimation Techniques
  - 1.7.5. User History Prioritization
- 1.8. Iterations Planning and Monitoring
  - 1.8.1. Iteration and Progressive Development
  - 1.8.2. Iteration Planning Process
  - 1.8.3. Creating Iteration Backlog
  - 1.8.4. Buffers and Agile Schedule
  - 1.8.5. Iteration Progress Monitoring
  - 1.8.6. Monitoring and Release Progress Report

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1.9.	Team L	eadership in Web Application Development
	1.9.1.	Agile Teams
	1.9.2.	Agile Project Leader
		The Agile Team
		Virtual Agile Team Management
		Coaching for Team Performance Improvement
1.10.		lanagement and Delivery in Web Development Projects
		Delivery Processes Focused on Value
		Product Quality
	1.10.3.	Quality Agile Practices
	1.10.4.	Risk Management
	1.10.5.	Agile Contracts
	1.10.6.	Value Gained Management in Agile Projects
Mod	u <b>le 2</b> . V	Veb Programming Languages
2.1.	Web Pro	ogramming
2.1.		ogramming The Web
2.1.	2.1.1.	
2.1.	2.1.1. 2.1.2.	The Web
2.1.	2.1.1. 2.1.2.	The Web Web Design
2.1.	2.1.1. 2.1.2.	The Web Web Design Web Development
2.1.	2.1.1. 2.1.2.	The Web Web Design Web Development 2.1.3.1. Front-End
2.1.	2.1.1. 2.1.2. 2.1.3.	The Web Web Design Web Development 2.1.3.1. Front-End 2.1.3.2. Back-End
2.1.	2.1.1. 2.1.2. 2.1.3.	The Web Web Design Web Development 2.1.3.1. Front-End 2.1.3.2. Back-End 2.1.3.3. Full-Stack
2.1.	2.1.1. 2.1.2. 2.1.3.	The Web Web Design Web Development 2.1.3.1. Front-End 2.1.3.2. Back-End 2.1.3.3. Full-Stack Types of Languages
2.1.	2.1.1. 2.1.2. 2.1.3.	The Web Web Design Web Development 2.1.3.1. Front-End 2.1.3.2. Back-End 2.1.3.3. Full-Stack Types of Languages 2.1.4.1. Programming Languages
2.1.	<ul><li>2.1.1.</li><li>2.1.2.</li><li>2.1.3.</li><li>2.1.4.</li></ul>	The Web Web Design Web Development 2.1.3.1. Front-End 2.1.3.2. Back-End 2.1.3.3. Full-Stack Types of Languages 2.1.4.1. Programming Languages 2.1.4.2. Markup Languages
2.1.	<ul><li>2.1.1.</li><li>2.1.2.</li><li>2.1.3.</li><li>2.1.4.</li></ul>	The Web Web Design Web Development 2.1.3.1. Front-End 2.1.3.2. Back-End 2.1.3.3. Full-Stack Types of Languages 2.1.4.1. Programming Languages 2.1.4.2. Markup Languages 2.1.4.3. Scripting Languages

HTML	
2.2.1.	HTML
2.2.2.	Labels
	2.2.2.1. Nesting
	2.2.2.2. Attributes
2.2.3.	Documents Structure
	2.2.3.1. Headings
	2.2.3.2. Body
2.2.4.	Semantic Components
	2.2.4.1. Root Elements
	2.2.4.2. Metadata
	2.2.4.3. Scripting
	2.2.4.4. Sections
	2.2.4.5. Comments
2.2.5.	Text Content
	2.2.5.1. Headings
	2.2.5.2. Paragraphs
	2.2.5.3. Lists
	2.2.5.4. Text Formats
	2.2.5.5. Special Characters
2.2.6.	Blocks
2.2.7.	Hyperlinks
2.2.8.	Embedded Content
2.2.9.	Tables
2.2.10.	Forms.

2.2.

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2.3.	CSS	
	2.3.1.	CSS
	2.3.2.	Style Applications
	2.3.3.	Rules
		2.3.3.1. Selectors
		2.3.3.2. Properties and Values
		2.3.3.3. Comments
	2.3.4.	Style Collisions
		2.3.4.1. Heritage
		2.3.4.2. Cascade
	2.3.5.	Selectors
	2.3.6.	Combiners
	2.3.7.	Pseudo Classes
	2.3.8.	Pseudo Components
	2.3.9.	Box Models
	2.3.10.	Attributes
	2.3.11.	Measuring Units
		2.3.11.1. Absolute Units
		2.3.11.2. Relative Units
	2.3.12.	Positioning
	2.3.13.	Color
	2.3.14.	Variables
	2.3.15.	Animations

2.4.	JavaSc	ript
	2.4.1.	JavaScript
	2.4.2.	Code Inclusion in HTML
	2.4.3.	Syntax
		2.4.3.1. Statements
		2.4.3.2. Comments
	2.4.4.	Types of Data
	2.4.5.	Variables and Areas
	2.4.6.	Operators
	2.4.7.	Flow Control Structures
	2.4.8.	Functions
	2.4.9.	Document Object Model (DOM) Manipulation
	2.4.10.	Events
	2.4.11.	Object-Oriented Programming
		2.4.11.1. Classes
		2.4.11.2. Objects
		2.4.11.2.1. Properties
		2.4.11.2.2. Methods
	2.4.12.	AJAX
2.5.	PHP	
	2.5.1.	PHP
	2.5.2.	Documents Structure
	2.5.3.	Generating HTML Content
	2.5.4.	Constants and Variables
	2.5.5.	Operators
	2.5.6.	Types of Data
	2.5.7.	Flow Control Structures
	2.5.8.	Functions

2.5.9. Forms, Cookies and Sessions

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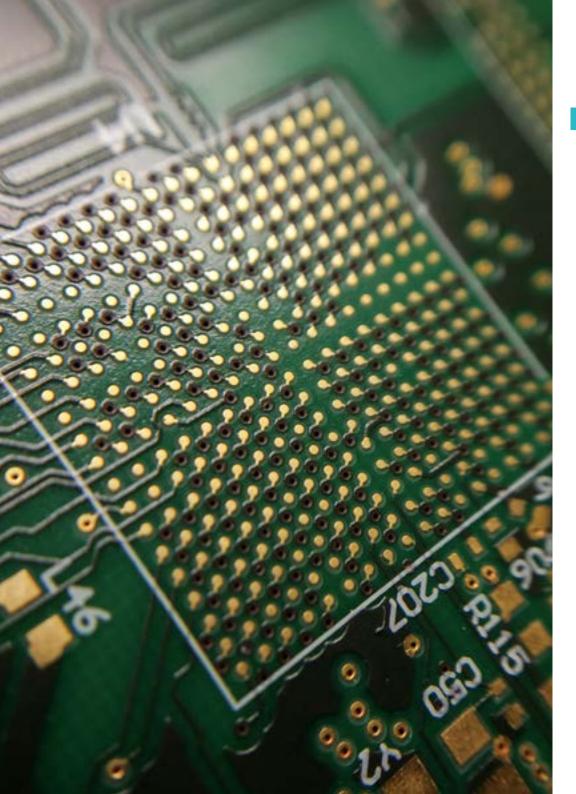
2.6.	MySQL	
	2.6.1.	MySQL
	2.6.2.	Databases
	2.6.3.	Characters Codification
	2.6.4.	Types of Data
	2.6.5.	Users and Privileges
	2.6.6.	Accessing Databases
	2.6.7.	Creating and Manipulating Databases
	2.6.8.	Clauses
	2.6.9.	Queries
2.7.	HTML a	and CSS Libraries and Frameworks
	2.7.1.	Bootstrap
	2.7.2.	Foundation
	2.7.3.	Skeleton
	2.7.4.	Bulma
	2.7.5.	Materialize
	2.7.6.	PureCSS
	2.7.7.	TailwindCSS
	2.7.8.	Susy
	2.7.9.	Ulkit
2.8.	JavaSc	ript Frameworks and Libraries
	2.8.1.	Angular
	2.8.2.	jQuery
	2.8.3.	React
	2.8.4.	Meteor
	2.8.5.	Polymer
	2.8.6.	Mithril
	2.8.7.	Aurelia
	2.8.8.	Vue.js
	2.8.9.	Ember.js
	2.8.10.	Node.js

2.8.11. Backbone.js

2.9.	PHP Lik	oraries and Frameworks
	2.9.1.	Laravel
	2.9.2.	Symfony
	2.9.3.	Zend
	2.9.4.	Codelgniter
	2.9.5.	FuelPHP
	2.9.6.	CakePHP
	2.9.7.	Phalcon
	2.9.8.	Yii
	2.9.9.	Slim
2.10	D. Web Pro	ogramming Techniques
	2.10.1.	Beautify
	2.10.2.	Minimizing Code
	2.10.3.	Image Optimization
		2.10.3.1. File Formats
		2.10.3.2. Compression Quality vs. Size
	2.10.4.	Code Normalization and Compatibility between Browsers
	2.10.5.	Code Debugging and Validation
	2.10.6.	Bundling
	2.10.7.	Repository and Version Control



- 3.1. Website Engineering and Architecture
  - 3.1.1. Website Architecture
  - 3.1.2. Uses and Applications
- 3.2. The Pillars of Web Architecture
  - 3.2.1. Public
  - 3.2.2. Contents
  - 3.2.3. Context
- 3.3. Horizontal Web Architecture
  - 3.3.1. Advantages
  - 3.3.2. Examples:
- 3.4. Vertical Web Architecture
  - 3.4.1. Advantages
  - 3.4.2. Examples
- 3.5. Web Architecture Phases
  - 3.5.1. Taxonomy
  - 3.5.2. Labelling
  - 3.5.3. Site Map
- 3.6. Web Architecture and Web Design
  - 3.6.1. Types of Pages
  - 3.6.2. Component Presence
  - 3.6.3. Linking Needs
- 3.7. Web Architecture and Web Browsing
  - 3.7.1. Structure
  - 3.7.2. Categorization
  - 3.7.3. Marking
  - 3.7.4. Usability



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4.2.4.1. Poodle 4.2.4.2. Ticketbleed 4.2.4.3. Beast attack 4.2.4.4. ROBOT 4.2.4.5. Heartbleed

3.8.	Web Ar	chitecture and SEO
	3.8.1.	Benchmark
	3.8.2.	Keyword Research
	3.8.3.	URLs
	3.8.4.	Internal Links
	3.8.5.	Cannibalization
3.9.	Web Ar	chitecture Tools
	3.9.1.	Mindmeister Mind Maps
	3.9.2.	Analyzing URLs Screaming Frog SEO Spider
	3.9.3.	Analyzing Web Traffic Using Google Analytics
3.10.	Google	Search Console
	3.10.1.	Keyword Study
	3.10.2.	Opportunity Keywords
	3.10.3.	Website Performance
Mod	<b>ule 4.</b> V	Vebsite Security Systems
4.1. Perimeter Security		
	4.1.1.	Network Firewall
	4.1.2.	Demilitarized Zone (DMZ)
	4.1.3.	Load Balancers
		4.1.3.1. Content Delivery Network (CDN)
	4.1.4.	Web Application Firewall (WAF)
4.2.	Encrypt	red Web Communications
	4.2.1.	SSL Certified
	4.2.2.	Protocols
	4.2.3.	Cipher Suites
	4.2.4.	Vulnerabilities

4.3.	Vulnera	ability Analysis
	4.3.1.	XXS (Cross Site Scripting)
	4.3.2.	SQL Injection
	4.3.3.	CSRF
	4.3.4.	Code Injection
	4.3.5. [	DoS
		4.3.5.1 DDoS
4.4.	Securit	y Headers
	4.4.1.	X-Frame Options
	4.4.2.	X-XSS-Protection
	4.4.3.	X-Content-Type-Options
	4.4.4.	Referrer Policy
	4.4.5.	HTTPS Strict Transport Security (HSTS
4.5.	Authen	tication and Authorization
	4.5.1.	HTTP Authentication
		4.5.1.1. Basic
		4.5.1.2. Digest
		4.5.1.3. NTLM
	4.5.2.	Protocols and Standards
		4.5.2.1. Oauth
		4.5.2.2. OpenID
4.6.	Web Au	uditing
	4.6.1.	Auditing Technique
		4.6.1.1. Black Box
		4.6.1.2. White Box
		4.6.1.3. Grey Box
	4.6.2.	OWASP Methodology

4.6.3. Bug Bounty

#### 4.7. Application Programming Interface (API) Security

4.7.1. Types of APIs

4.7.1.1. REST

4.7.1.2. SOAP

4.7.1.3. Others

4.7.2. Attacks and Risks

4.7.3. Traffic Analysis

#### 4.8. Content Managment System (CMS) Security Management

4.8.1. Wordpress

4.8.2. Joomla

4.8.3. Drupal

4.8.4. Magento

#### 4.9. Secure Application Development

4.9.1. Secure Software Development Life Cycle

4.9.2. Risk Assessment

4.9.3. Security Tests

4.9.4. Good Practices

#### 4.10. Crisis Management and Resilience

4.10.1. Crisis Management and Incident Response

4.10.2. Security Incident Response Process

4.10.2.1. Preparation

4.10.2.2. Identification

4.10.2.3. Containment

4.10.2.4. Eradication

4.10.2.5. Recuperation

4.10.2.6. Lessons Learned

4.10.3. Backup Copies

#### Module 5. User Interface Design and Programming

#### 5.1. User Experience

- 5.1.1. User Experience (UX)
- 5.1.2. Interface Design (UI)
- 5.1.3. Interaction Design (IxD)
- 5.1.4. Context and New Paradigms

#### 5.2. User Interface Design

- 5.2.1. Design and UX
- 5.2.2. Web Design Psychology
- 5.2.3. Design Thinking
- 5.2.4. Types of Web Design

5.2.4.1. Fixed Design

5.2.4.2. Elastic Design

5.2.4.3. Liquid Design

5.2.4.4. Responsive Design

5.2.4.5. Flexible Design

5.2.5. Design System & Atomic Design

#### 5.3. UX or User Research

- 531 UX Research
- 5.3.2. Importance and Process
- 5.3.3. Research and Analysis
- 5.3.4. Heuristic Evaluation
- 5.3.5. Eye Tracking
- 5.3.6. Test A/B
- 5.3.7. Crazy Egg
- 5.3.8. Card Sorting
- 5.3.9. Customer Journey
- 5.3.10. Other Techniques

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5.4.	UX Wri	ting
	5.4.1.	UX Writing
	5.4.2.	UX Writing vs. Copywriting
	5.4.3.	Uses and Benefits
	5.4.4.	Microcopy
	5.4.5.	Web Structure
5.5.	Interac	tion Design and Web Prototyping
	5.5.1.	Prototyping Phase
	5.5.2.	Methods
		5.5.2.1. Sketches
		5.5.2.2. Wireframes
		5.5.2.3. Mockups
	5.5.3.	Browsing Flows
	5.5.4.	Interaction
	5.5.5.	Managing Online Tools
5.6.	Usabili	ty
	5.6.1.	Impact of Usability on User Experience
	5.6.2.	Metrics
	5.6.3.	Tests
		5.6.3.1. Internal Usability Test
		5.6.3.2. Unmoderated Remote Usability Testing
		5.6.3.3. Moderated Remote Usability Testing
	5.6.4.	Assessment Tools
5.7.	Access	sibility
	5.7.1.	Web Accessibility
	5.7.2.	Beneficiaries
	5.7.3.	Disabilities
		5.7.3.1. Visual Impairment
		5.7.3.2. Hearing Impairment
		5.7.3.3. Motor Disability
		5.7.3.4. Speech Impairment
		5.7.3.5. Cognitive Impairment



5.7.4.	Accessibility Guidelines
	5.7.4.1. WCAG 2.1 and Priorities
	5.7.4.2. Perceptible
	5.7.4.3. Operable
	5.7.4.4. Comprehensible
	5.7.4.5. Robust
5.7.5.	Validation Tools and Techniques
Informa	tion Architectures
5.8.1.	Organization Systems
5.8.2.	Labeling Systems
5.8.3.	Browsing Systems
5.8.4.	Search Systems
SXO: U>	and SEO
5.9.1.	Similarities between UX and SEO
5.9.2.	SEO Factors
5.9.3.	Impact and Benefits of Optimizing UX for SEO
5.9.4.	UX Advice to Improve SEO
Style Gu	uides
5.10.1.	Objectives
5.10.2.	Context
5.10.3.	Color Palettes
5.10.4.	Typography
5.10.5.	Iconography
5.10.6.	Components
	5.10.6.1. Basic Components
	5.10.6.2. Conplex Components
5.10.7.	Layout
5.10.8.	Consistency and Identity

5.8.

5.9.

5.10.

5.10.9. Utility Extension

5.10.10. Examples

## Module 6. e-Commerce Creation and Administration

- 6.1. e-Commerce Development
  - 6.1.1. Functions
  - 6.1.2. Advanced Functions
  - 6.1.3. Administration
    - 6.1.3.1. Payment Systems
    - 6.1.3.2. Customer Management
    - 6.1.3.3. Order Management
  - 6.1.4. Dropshipping
- 6.2. Database Programming and Structure
  - 6.2.1. Selecting Development Environment
  - 6.2.2. Web Structure for e-Commerce
  - 6.2.3. Database Structure
- 6.3. e-Commerce Design
  - 6.3.1. Main Screen
  - 6.3.2. Login and Register Areas
  - 6.3.3. Product Screen Structure
  - 6.3.4. Internal Pages about Shipping, Terms and Conditions, Legal Notices, etc.
- 6.4. Proprietary Development vs. CMS (Content Management System)
  - 6.4.1. Advantages and Disadvantages of Using CMS
  - 6.4.2. Selecting CMS According to Development Types
  - 6.4.3. Proprietary System or Online Cloud
    - 6.4.3.1. Wordpress + Woocommerce
    - 6.4.3.2. Prestashop
    - 6.4.3.3. Magento
    - 6.4.3.4. Shopify
- 6.5. Installing and Configuring the Work Environment
  - 6.5.1. Hosting and Domain
    - 6.5.1.1. SSL Activation and PHP Configuration

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	6.5.2. Ir	nstalling CMS	
		6.5.2.1. Wordpress + Woocommerce Installation	
		6.5.2.2. Prestashop Installation	
		6.5.2.3. Magento Installation	
	6.5.3.	Configuring and Launching CMS	
		6.5.3.1. Configuring and Launching Wordpress + Woocommerce	
		6.5.3.2. Configuring and Launching Prestashop	
		6.5.3.3. Configuring and Launching Magneto	
	6.5.4.	Selecting a Definitive Work Environment	
6.6.	UX (Use	er eXperience)	
	6.6.1.	Design	
	6.6.2.	Functionality vs. Design	
	6.6.3.	Final Customer Optimization	
	6.6.4.	Visibility of Priority Parts	
6.7.	SEO (Se	earch Engine Optimization)	
	6.7.1.	Keyword Search for Our Store	
	6.7.2.	Optimizing Pages, Meta Labels, Titles and Others	
	6.7.3.	Optimized Content	
	6.7.4.	Backlinks, Press Releases and Reviews	
	6.7.5.	Social Media and Marketing	
		6.7.5.1. Creating Promotions	
		6.7.5.2. Optimizing Promotions and Buyer Persona	
6.8.	Payment and Logistics Systems		
	6.8.1.	Configuring Virtual and Physical Payment Systems	
		6.8.1.1. Paypal	
		6.8.1.2. Stripe	
		6.8.1.3. Cash on Delivery	
		6.8.1.4. POS Banking	
		6.8.1.5. Installment Payment Systems	
	6.8.2.	Logistics	
		6.8.2.1. Optimizing Shipment Channels	
		6.8.2.2. Optimized Shipment Selector Configuration	
	6.8.3.	Delivery Automation	

6.9.	Marketi	ng and Advertising
	6.9.1.	Competitive Analysis
	6.9.2.	Work Tools
		6.9.2.1. Analysis Tools
		6.9.2.2. Design Tools
		6.9.2.3. SEO Tools
		6.9.2.4. Optimization Tools
	6.9.3.	Installing Tracking Pixels for Advanced Segmentation
	6.9.4.	Creating Promotions
		6.9.4.1. Facebook Ads
		6.9.4.2. Twitter, TikTok, Pinterest and Other Massive Platforms
		6.9.4.3. Google Ads
		6.9.4.4. Ad Optimization
6.10.	Analysi	s, Data Measuring and Results
	6.10.1.	Measuring Traffic
	6.10.2.	Search Engine Analysis
	6.10.3.	Sources and Sales Percentages

6.10.4. Creating Promotional Landing Pages

6.10.5. Selling on Marketplace 6.10.5.1. Amazon 6.10.5.2. eBay 6.10.6. Problem Solving

## Module 7. Web Server Administration

- 7.1. Selecting a Work Environment
  - 7.1.1. Operating Systems (Windows or Linux)
  - 7.1.2. Distribution Differences
    - 7.1.2.1. Choosing the Right Operating System
    - 7.1.2.2. Test Working Environment (Development)
    - 7.1.2.3. Professional Working Environment (Production)
- 7.2. Installing and Configuring the Virtual Work Environment
  - 7.2.1. Installing VirtualBox for Windows Development Environment
    - 7.2.1.1. Installation of Windows Server Environment
    - 7.2.1.2. Initial Configuration and Networks for Windows Server
    - 7.2.1.3. Installation of Components for Production
    - 7.2.1.4. Windows Server Optimization
  - 7.2.2. Installing Linux Visual Environment
    - 7.2.2.1. Installation and Configuration of Centos (Operating System for the Enterprise Community)
    - 7.2.2.2. Ubuntu Server Installation and Configuration
    - 7.2.2.3. Debian Installation and Configuration
- 7.3. Command Terminal
  - 7.3.1. Directories and CHMOD Permissions
    - 7.3.1.1. Disk and File Management
  - 7.3.2. Service Analysis
  - 7.3.3. Problem Detection and Analysis/LOGS
  - 7.3.4. Resource Monitoring
    - 7.3.4.1. Commands and Automation
  - 7.3.5. Editors and Administration Commands

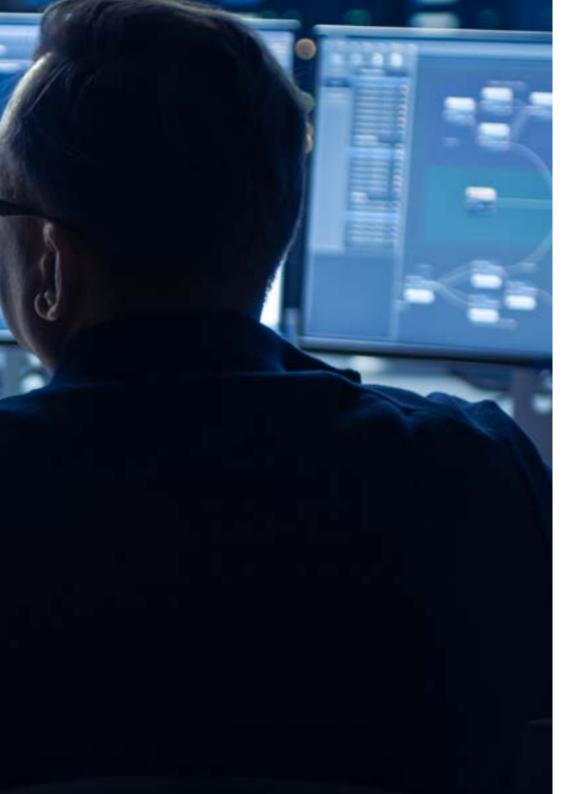
#### 7.4. Networks

- 7.4.1. IP Theory and ISO/TCP Models
- 7.4.2. IP Utilities and Commands
- 7.4.3. Network and File Configuration
- 7.4.4. SCP, FTP, SAMBA, NFS Protocols and Services
- 7.4.5. DNS Service Installation and Configuration
- 7.5. Installation and Control Panels
  - 7.5.1. Selecting an Adequate Control Panel 7.5.1.1. Configuration and Optimization
  - 7.5.2. Installing cPanel7.5.2.1. Configuration and Optimization
  - 7.5.3. Installing Plesk 7.5.3.1. Configuration and Optimization
  - 7.5.4. Installing Directadmin7.5.4.1. Configuration and Optimization
- 7.6. Installing Core Web Services
  - 7.6.1. Installing Apache
    7.6.1.1. PHP/PHP-FPM Installation
  - 7.6.2. Installing MySQL
  - 7.6.3. Installing MariaDB
  - 7.6.4. Installing PHPmyadmin
  - 7.6.5. Installing Exim/Dovecot

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7.7.	Optimiz	ring Web Services, Databases and E-mail
	7.7.1.	Installing Nginx
		7.7.1.1. Configuring and Launching Nginx
	7.7.2.	Optimizing Apache
	7.7.3.	Optimizing PHP/PHP-FPM
	7.7.4.	Optimizing MySQL
		7.7.4.1. Data Analysis Tools
	7.7.5.	Optimizing Exim
7.8.	Backup	s in Production Environments
	7.8.1.	Backups
	7.8.2.	Planning a Secure Environment
		7.8.2.1. Base Commands - CP, MV, RSYNC
	7.8.3.	Automating Backup Copies Systems
	7.8.4.	Data Redundancy and Security/Replication
	7.8.5.	Optimizing Secure Environments
7.9.	Security	У
	7.9.1.	Dedicated/Virtual Server Security
	7.9.2.	Installing Monitoring Tools
		7.9.2.1. Brute force and scanning prevention
	7.9.3.	Installing Firewalls
	7.9.4.	Antimalware/Virus Systems
		7.9.4.1. Scanning and Quarantine Automation
	7.9.5.	Anti-Spam Mail





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7.10. Problem Solving and Eve	entualities
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- 7.10.1. Service Stop
- 7.10.2. Disk Errors in Production Environments
- 7.10.3. Monitoring and Delegating Services
- 7.10.4. Web Migration/Databases/E-mail/Files
- 7.10.5. Hacked Web Resolution
- 7.10.6. E-mail Problems
  - 7.10.6.1. Blacklist IP Difficulties
  - 7.10.6.2. IP Assignment to a Particular Domain
  - 7.10.6.3. Mail Arriving in Spam Folder
- 7.10.7. Server Not Responding (Rescue Mode)
  - 7.10.7.1. RAM Memory Test
  - 7.10.7.2. Hard Drive Test
  - 7.10.7.3. RAID Test/File System Degradation
- 7.10.8. Administrating and Monitoring Disc Space
  - 7.10.8.1. Problems with INODOS
- 7.10.9. Nmap and Tracert for Network Problem Detection

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#### Module 8. Web Content Managers

- 8.1. Content Management Systems (CMS)
  - 8.1.1. Current CMS
- 8.2. Types of CMS
  - 8.2.1. Open Source vs. Proprietary
  - 8.2.3. Local System vs. Cloud-Based
  - 8.2.4. Programming Languages
  - 8.2.5. Uses and Functionality
  - 8.2.6. Other Types of CMS (ECM, WCM, DMS)
- 8.3. CMS Tools and Resources
  - 8.3.1. User Management
  - 8.3.2. Page Management
  - 8.3.4. Templates
  - 8.3.5. Plug-ins
  - 8.3.6. Others (Media Library, Comment Moderation, Sales Management, etc.)
- 8.4. CMS Architecture and Design
  - 8.4.1. The Use of CMS
  - 8.4.2. Templates
- 8.5. CMS and SEO
  - 8.5.1. Technical SEO
  - 8.5.2. SEO Content
  - 8.5.3. Plug-ins
- 8.6. WordPress
  - 8.6.1. Applications
  - 8.6.2. Examples
- 8.7. Drupal
  - 8.7.1. Applications
  - 8.7.2. Examples:

- 8.8. Prestashop
  - 8.8.1. Applications
  - 8.8.2. Examples:
- 8.9. Shopify
  - 8.9.1. Applications
  - 8.9.2. Examples:
- 8.10. Other CMS
  - 8.10.1. Wix
  - 8.10.2. Blogger
  - 8.10.3. Magento
  - 8.10.4. Joomla!

## Module 9. Website Marketing

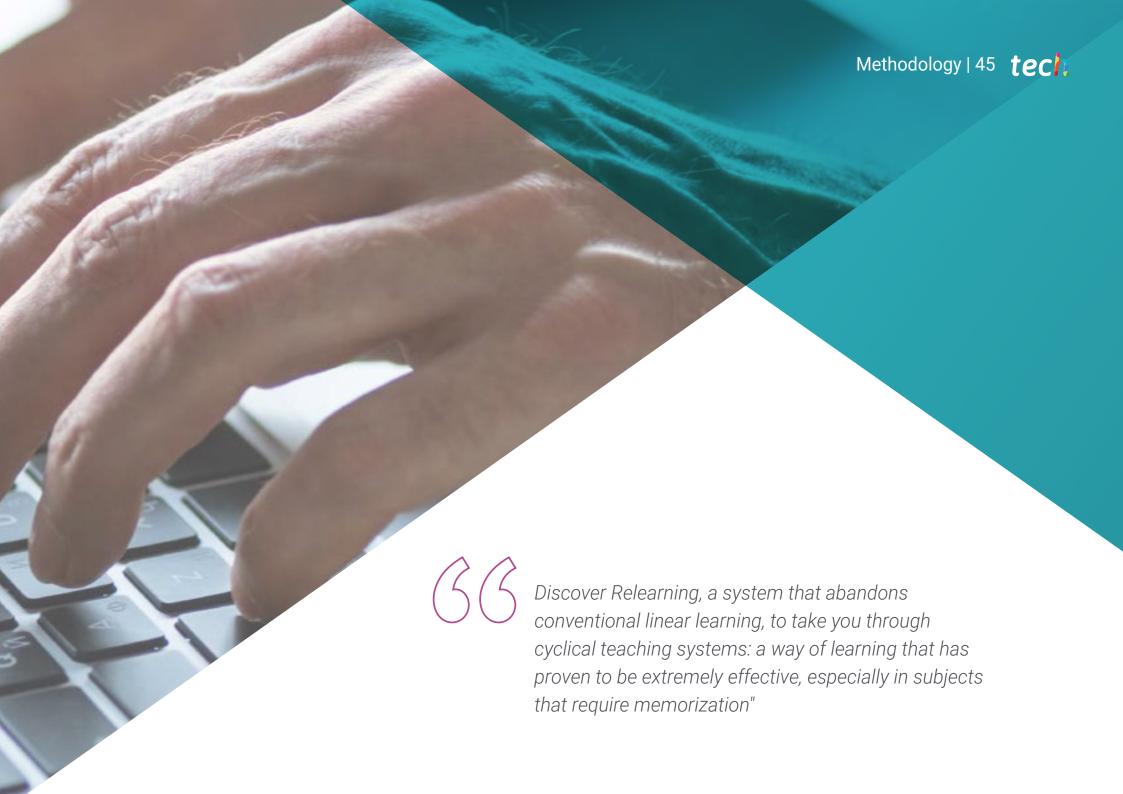
- 9.1. Website Commercialization
  - 9.1.1. Website Commercialization
  - 9.1.2. Website Development Cost
  - 9.1.3. Profitability Calculations
- 9.2. Invoicing and Taxation
  - 9.2.1. Freelance Invoicing
  - 9.2.2. Company Invoicing
  - 9.2.3. Taxation
- 9.3. Sales Funnels: Attraction Phase
  - 9.3.1. Organic Traffic
    - 9.3.1.1. SEO
  - 9.3.2. Payment Traffic
- 9.4. Sales Funnels: Interaction Phase
  - 9.4.1. E-mailing
  - 9.4.2. Forms
  - 9.4.3. CTAs

- 9.5. Sales Funnels: Conversion Phase
  - 9.5.1. Offer
  - 9.5.2. Ideas to Close the Sale
  - 9.5.3. Customer Objections
- 9.6. Sales Funnels: Loyalty Phase
  - 9.6.1. Exceeding Customer Expectations
  - 9.6.2. Customer Service
  - 9.6.3. Affiliation Systems
  - 9.6.4. Surveys
- 9.7. Analytics
  - 9.7.1. Analysis
  - 9.7.2. KPIs
  - 9.7.3. E-mailing Analytics
  - 9.7.4. Social Media Analytics
- 9.8. Analytics: Analyzing Websites Using Google Analytics
  - 9.8.1. Audience Analytics
  - 9.8.2. Purchase Analytics
  - 9.8.3. Behavior Analytics
  - 9.8.4. Conversion Analytics
- 9.9. Marketing Automation
  - 9.9.1. The Purpose of Automating
  - 9.9.2. Automation Software
  - 9.9.3. Workflows
  - 9.9.4. Scoring
- 9.10. Growth Hacking
  - 9.10.1. Growth Hacking
  - 9.10.2. The Figure of the Growth Hacker
  - 9.10.3. Techniques and Examples



A unique specialization program that stands out due to the quality of its contents and its excellent teaching staff"





# tech 46 | Methodology

# 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.

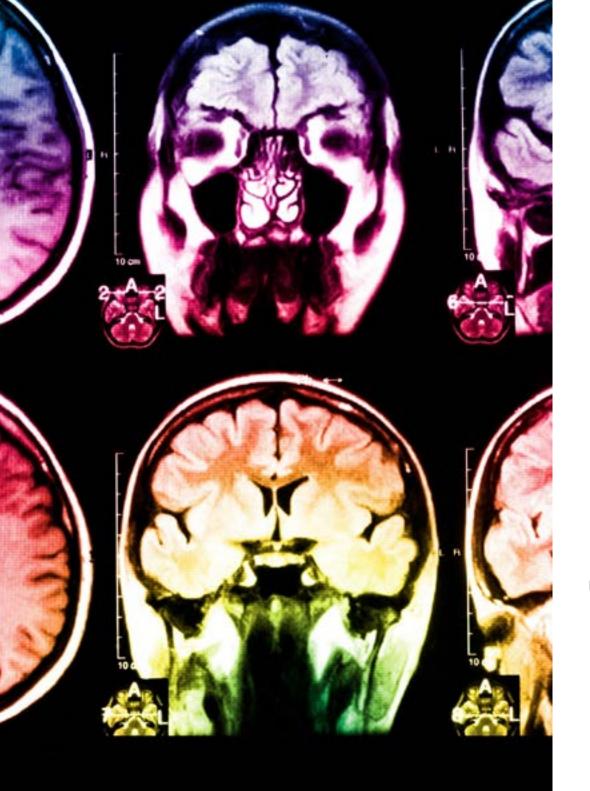
We enhance the Case Study with the best 100% online teaching method: Relearning.

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.





# Methodology | 49 tech

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.



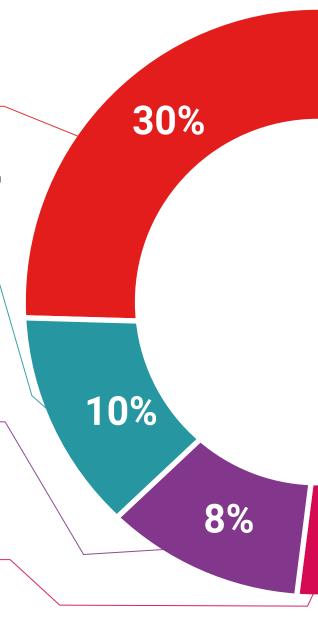
## **Practising Skills and Abilities**

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.





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.

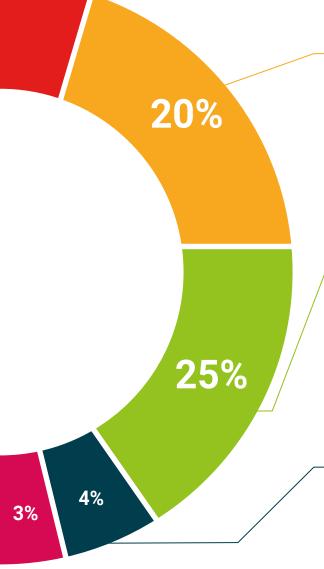


This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".

# **Testing & Retesting**

 $\bigcirc$ 

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.







# tech 54 | Certificate

This **Professional Master's Degree in Website Management Engineering** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Professional Master's Degree** issued by **TECH Technological University** via tracked delivery\*.

The certificate issued by **TECH Technological University** will reflect the qualification obtained in the Professional Master's Degree, and it meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional from career evaluation committees.

Title: Professional Master's Degree in Website Management Engineering Official N° of hours: 1,500 h.





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

health confidence people

leducation information tutors
guarantee accreditation teaching
thesis is a technology learning



# Professional Master's Degree

Website Management Engineering

Modality: Online
Duration: 12 months

Certificate: TECH Technological University

Official N° of Hours: 1,500 h.

