

Postgraduate Certificate

Multi-Platform Web Development in Mobile Application Development





Postgraduate Certificate Multi-Platform Web Development in Mobile Application Development

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

Website: www.techtute.com/us/information-technology/postgraduate-certificate/multi-platform-web-development-mobile-application-development

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 16

05

Methodology

p. 20

06

Certificate

p. 28

01

Introduction

The number of mobile users has grown exponentially in recent years and, with it, the need to develop applications for the different mobile platforms available in order to reach as many users as possible. For developers, it is important to have specialized knowledge about the different alternatives for building multi-platform applications with a common code base, so that they can focus on adding new functionalities that bring value to their users. Hence the need to enhance the technical skills necessary to fulfill this purpose. This refresher program will allow them to obtain the knowledge they need, in an agile and efficient way, in 6 weeks and 100% online.





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Master the main models of Mobile Application Development today with this Postgraduate Certificate"

Although each platform has its own native development model, to reach all of them, the computer scientist will have to develop and maintain different specific versions for each one, in different programming languages and with different environments. There are alternatives that seek multi-platform development and reuse the same code base for all users, no matter what platform they are on.

These are hybrid applications, which combine the properties of web and native applications ensuring compatibility with multiple mobile platforms; and with the ability to deploy the same applications on the web or even as desktop applications on PCs. This is where the importance of having specialized knowledge lies, in order to be able to provide truly efficient solutions in the projects developed.

In this Postgraduate Certificate the students will be able to compare the native development model and the multi-platform web development model based on hybrid Apps, to determine the advantages and limitations of each of the models, providing them with all the knowledge that will help them to generate the necessary professional criteria, in the face of an impacting demand for improvements and updates in the current computer systems specifically related to mobile devices.

Thanks to an exclusive syllabus selected by computer engineers who are experts in the subject, and a 100% online study methodology, with innovative systems such as Problem-Based Learning and Relearning that lead students to discern the concepts from a different point of view and memorize them in a fast and agile way. In addition, the combination of multimedia resources, audiovisual formats and theoretical-practical material make the learning process dynamic, to be completed in a maximum of 6 weeks.

This **Postgraduate Certificate in Multi-Platform Web Development in Mobile Application 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 Mobile Application Development
- ◆ 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 for experts and individual reflection work
- ◆ Content that is accessible from any fixed or portable device with an Internet connection



Now is the time to advance to the next level in your career. TECH offers you an exclusive program to master the Hybrid Apps environment"

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This Postgraduate Certificate will provide you with specialized knowledge about the different alternatives for the construction of multi-platform applications with a common code base”

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 allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive education programmed to prepare in real situations.

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

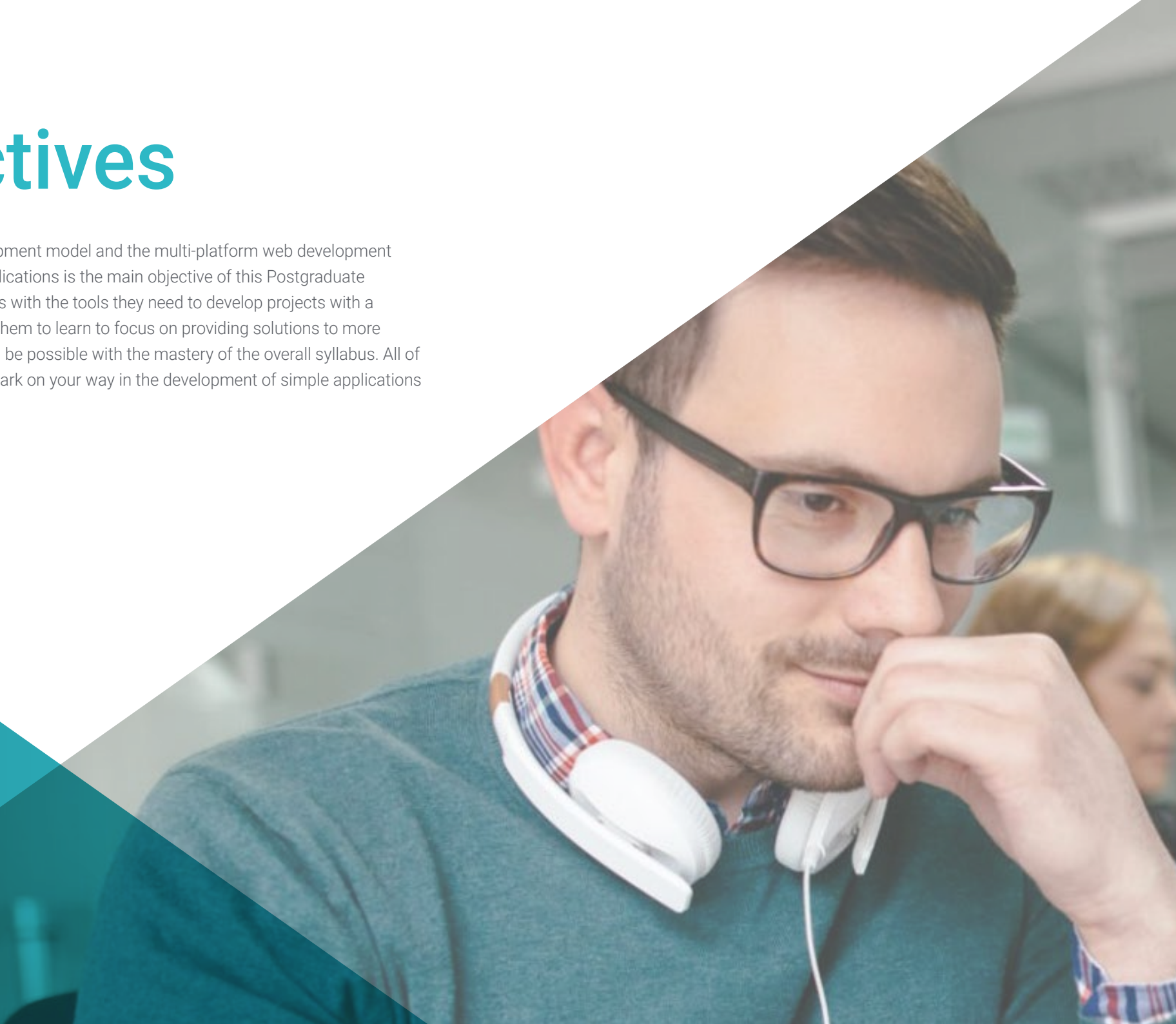
Analyze the main Frameworks for web application development: Angular, React, Vue.

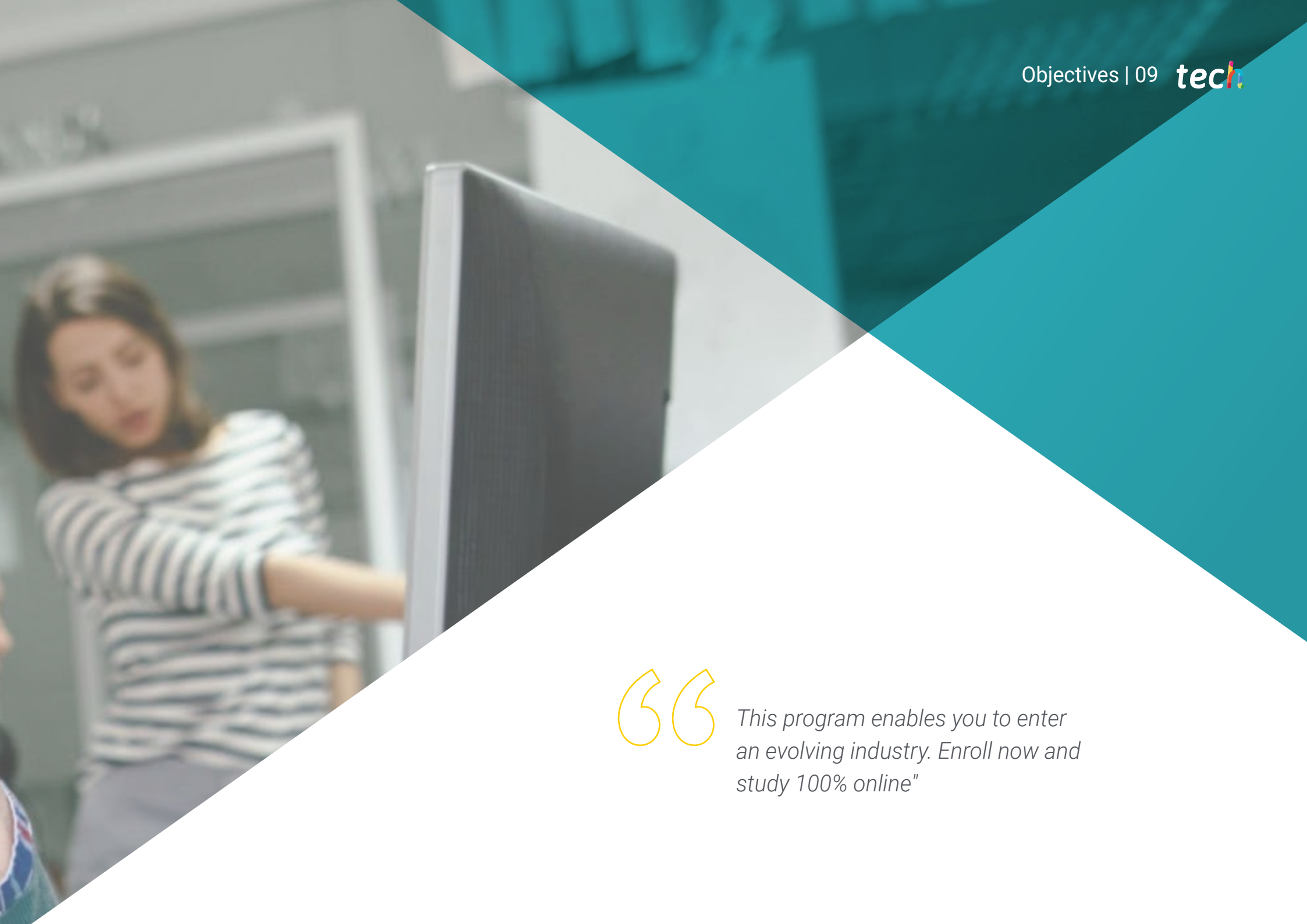
TECH provides you with everything you need for your professionalization, in a completely virtual environment.



02 Objectives

Compare the native development model and the multi-platform web development model based on hybrid applications is the main objective of this Postgraduate Certificate. Provide students with the tools they need to develop projects with a common code and enable them to learn to focus on providing solutions to more specific end-user needs will be possible with the mastery of the overall syllabus. All of which will allow you to embark on your way in the development of simple applications with the presented Stacks.





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This program enables you to enter an evolving industry. Enroll now and study 100% online"



General Objectives

- ◆ Analyze user needs and behavior in relation to mobile devices and their applications
- ◆ Execute the design of architectures, iterations and user interfaces through the programming languages of the most representative mobile platforms on the market (Web, iOS and Android)
- ◆ Apply error control, testing and debugging mechanisms in mobile application development
- ◆ Address different practical and business cases for publishing, distributing and disseminating mobile applications in the main application markets
- ◆ Master the practical knowledge to plan and manage technology projects related to mobile technologies
- ◆ Develop the skills, aptitudes and tools necessary to learn to develop mobile applications in an autonomous and professional manner, on multi-platform devices
- ◆ Explore content related to app monetization and mobile marketing





Specific Objectives

- ◆ Determine the advantages and limitations of the native and hybrid App development model
- ◆ Examine the features and limitations of Progressive Web Apps (PWA)
- ◆ Analyze the main Frameworks for web application development: Angular, React, Vue
- ◆ Compile the main technologies for the development of multi-platform mobile applications Ionic and Flutter
- ◆ Analyze capabilities to deploy these hybrid apps as Web or Desktop Apps on PCs
- ◆ Examine a model to choose the alternative best suited for the development of a specific application

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This program compiles the main technologies for the development of cross-platform mobile applications: Ionic and Flutter”

03

Course Management

This Postgraduate Certificate provides students with the best professionals in the area of new technologies, solutions architecture and digital infrastructure, experts in Android programming and application developers, who will accompany them throughout the learning process, through various multimedia resources: meeting rooms, personalized chats, videos, forums and communities of experts, allowing easy access to knowledge.





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Solution architects at the most prestigious companies are leading this refresher program and will be sharing their exclusive knowledge for you"

Management



Mr. Olalla Bonal, Martín

- ♦ Senior Blockchain Practice Manager at EY
- ♦ Blockchain Client Technical Specialist for IBM
- ♦ Director of Architecture for Blocknitive
- ♦ Non-Relational Distributed Databases Team Coordinator for wedoIT (IBM Subsidiary)
- ♦ Infrastructure Architect at Bankia
- ♦ Head of Layout Department at T-Systems
- ♦ Department Coordinator for Bing Data España SL

Professors

Mr. Villot Guisán, Pablo

- ♦ Chief Information Officer, Chief Technical Officer and Founder of New Tech & Talent
- ♦ Technology Expert at KPMG Spain
- ♦ Blockchain Architect at Everis
- ♦ J2EE Developer Commercial Logistics Area in Inditex
- ♦ Degree in Computer Engineering from the University of La Coruña
- ♦ Microsoft MSCA certification: Cloud Platform



04

Structure and Content

This program offers a complete syllabus in the field of Multi-Platform Web Development in Mobile Application Development, describing the most up-to-date and indispensable concepts that will allow developers to focus on adding new functionalities that bring value to their users. The variety of formats in which the theoretical and practical content is presented, provide dynamism and agility to the learning process, coupled with the 100% online methodology developed in a completely secure virtual environment.

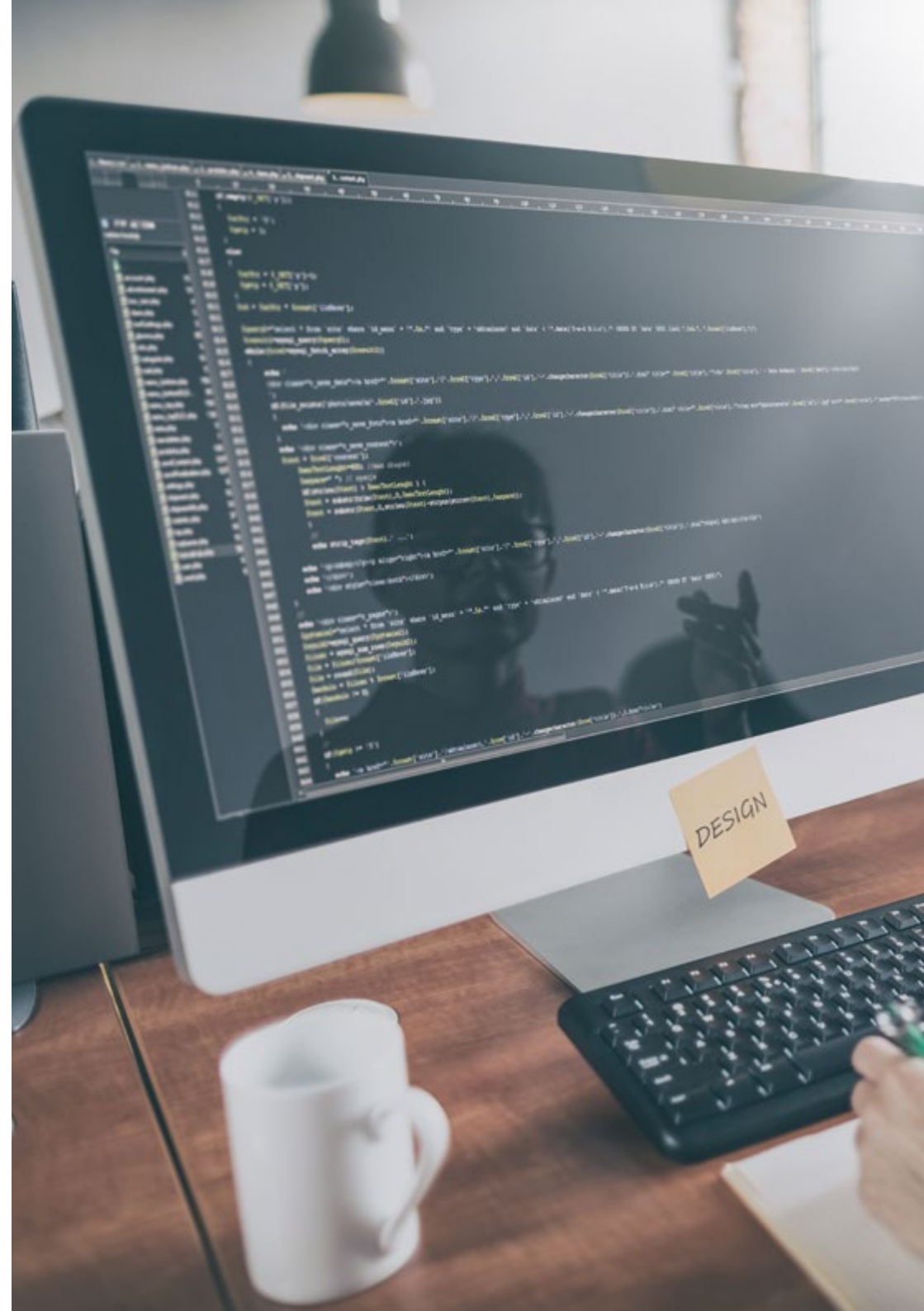


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IT professionals have no time to waste, choosing a flexible and agile program will ease the path to professionalization. TECH Global University makes it possible, enroll now"

Module 1. Multi-Platform Web Development for Mobiles

- 1.1. Multi-Platform Web Development
 - 1.1.1. Multi-Platform Web Development
 - 1.1.2. Hybrid Apps vs. Native Apps
 - 1.1.3. Technologies to Create Hybrid Apps
- 1.2. Progressive Web Apps (PWA)
 - 1.2.1. Progressive Web Apps (PWA)
 - 1.2.2. Progressive Web Apps (PWA). Features
 - 1.2.3. Progressive Web Apps (PWA). Construction
 - 1.2.4. Progressive Web Apps (PWA). Limitations
- 1.3. Ionic Framework
 - 1.3.1. Ionic Framework. Analysis
 - 1.3.2. Ionic Framework. Features
 - 1.3.3. Building an App with Ionic
- 1.4. Web Development Frameworks
 - 1.4.1. Framework Analysis in Web Development
 - 1.4.2. Web Development Frameworks
 - 1.4.3. Web Frameworks Comparison
- 1.5. Angular Framework
 - 1.5.1. Angular Framework
 - 1.5.2. Using Angular in Multi-Platform Application Development
 - 1.5.3. Angular + Ionic
 - 1.5.4. Building Apps in Angular
- 1.6. React Development Library
 - 1.6.1. JavaScript React Library
 - 1.6.2. JavaScript React Library Use
 - 1.6.3. React Native 4.6.4 React + Ionic
 - 1.6.5. Building Apps in React



- 1.7. Vue Development Framework
 - 1.7.1. Vue Development Framework
 - 1.7.2. Vue Development Framework. Use
 - 1.7.3. Vue + Ionic
 - 1.7.4. Building Apps in Vue
- 1.8. Electron Development Framework
 - 1.8.1. Electron Development Framework
 - 1.8.2. Electron Development Framework. Use
 - 1.8.3. Deploying Our Apps Also on Desktop
- 1.9. Flutter Mobile Device Development Tool
 - 1.9.1. Flutter Mobile Device Development Tool
 - 1.9.2. Use of Flutter SDK
 - 1.9.3. Building Apps in Flutter
- 1.10. Development Tools for Mobile Devices. Comparison
 - 1.10.1. Tools for Mobile Application Development
 - 1.10.2. Flutter vs. Ionic
 - 1.10.3. Selection of the Most Suitable Stack for Creating an App

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You will learn the methodology that is breaking the schemes of the world's university systems. Start now”



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.



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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.

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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.



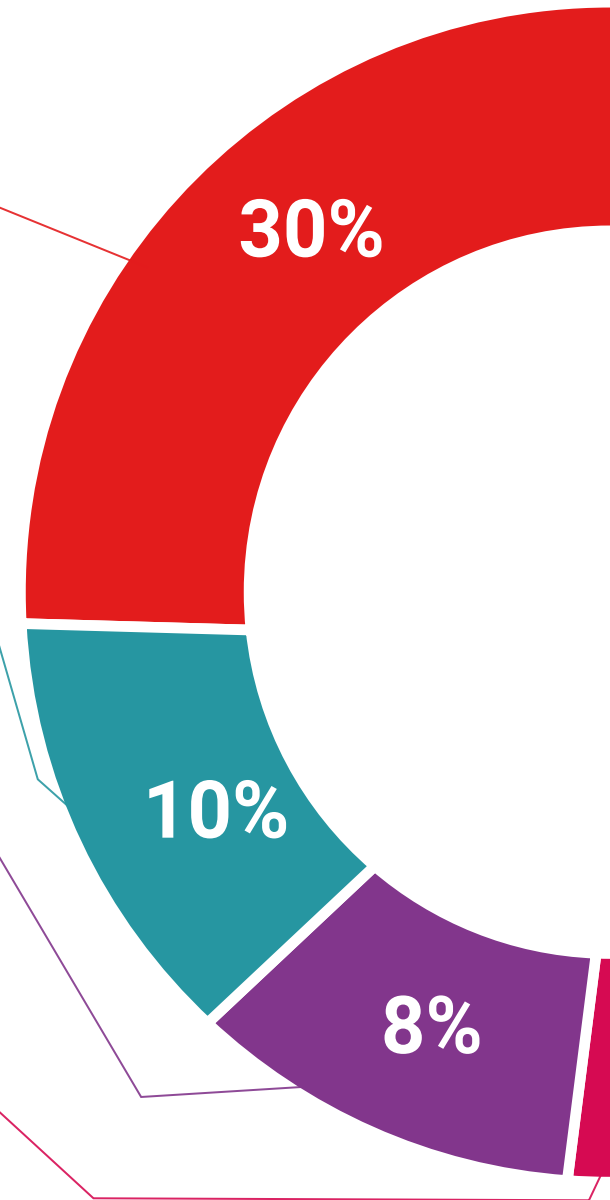
Practising Skills and Abilities

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





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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 Multi-Platform Web Development in Mobile Application 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 Multi-Platform Web Development in Mobile Application Development**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology
community commitment
personalized service innovation
knowledge present
online training
development language
classroom



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