Postgraduate Diploma

Mobile Application Development Life Cycle and Design

tech *technological university*

Postgraduate Diploma

Mobile Application
Development Life
Cycle and Design

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

Website: **www.techtitute.com/in/information-technology/postgraduate-diploma/postgraduate-diploma-mobile-application-development-life-cycle-design**

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Introduction

In technology, user experience has regained greater importance since the success of the product depends on it. For the same use, an almost infinite number of applications can be found for download. It will make a difference in the perception that the user has of it, either by the references reflected, as well as by their own experience of use. It is there where imperative factors of design and construction intervene, relevant within the knowledge of the current professional that are raised in this program. For specialization and updating within Mobile Application Development Life Cycle and Design. Available in 100% online mode and with the most avant-garde study methodology based on Relearning, for its comprehension and mastery in a few months.

If you want to specialize in the field of Mobile Application Development, delving into its Life Cycle and Design, this qualification is for you"

Each platform has its own native development model, adapting to the great variety that exists following this development model implies having to build and maintain different specific versions for each platform, in different programming languages and with different development environments. However, there are alternatives that seek to make a multiplatform development and reuse the same code base for all users, regardless of the platform they are on, these are known as hybrid applications, which will be studied in depth in this program.

In the same way, it is important that developers facilitate their processes in the creation of applications for mobile devices, in order to provide other types of solutions and functionalities that add value to users, since, precisely, an important part in the life cycle of Apps is the user experience. Visual theory and interface design have an importance that is not well known to the technical world but directly affects customer behavior. The ability to show and relate ideas and designs in Alpha phase through Wireframes and prototypes is fundamental.

In this sense, the development of applications and software for mobiles, increasingly complex and often developed by different distributed teams, poses a challenge of such magnitude that manual processes are the main cause of delays in delivery. This is where the emphasis will be placed on the automation of this whole cycle called continuous integration and deployment by determining its different stages.

For this purpose, the best content has been exhaustively selected by the team of specialists in charge of directing this Postgraduate Diploma. Taught online through a modern Virtual Campus, in a variety of formats and with the possibility of downloading for consultation when necessary, applying the Relearning methodology that allows the reiteration of concepts and practical cases, generating an agile and efficient learning process.

This **Postgraduate Diploma in Mobile Application Development Life Cycle and Design** 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

Experience a new way of learning. With TECH, you have the most innovative methodology and technology in the digital university environment"

"Music, entertainment, shopping, messaging, productivity, business and finance applications are among the most widely used today. Learn how to design more attractive Apps with long-lasting user experiences"

Master the development of applications and software for mobile devices, increasingly complex and automated, thanks to this program.

The academic revolution is here. Become an expert in a few months and 100% online.

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.

02
Objectives

With this Postgraduate Diploma, professionals will gain the knowledge and master the necessary techniques to understand the Mobile Application Development Life Cycle and Design. Achieve the excellence and specialization required in a constantly growing and evolving market. Opening doors to infinite possibilities.
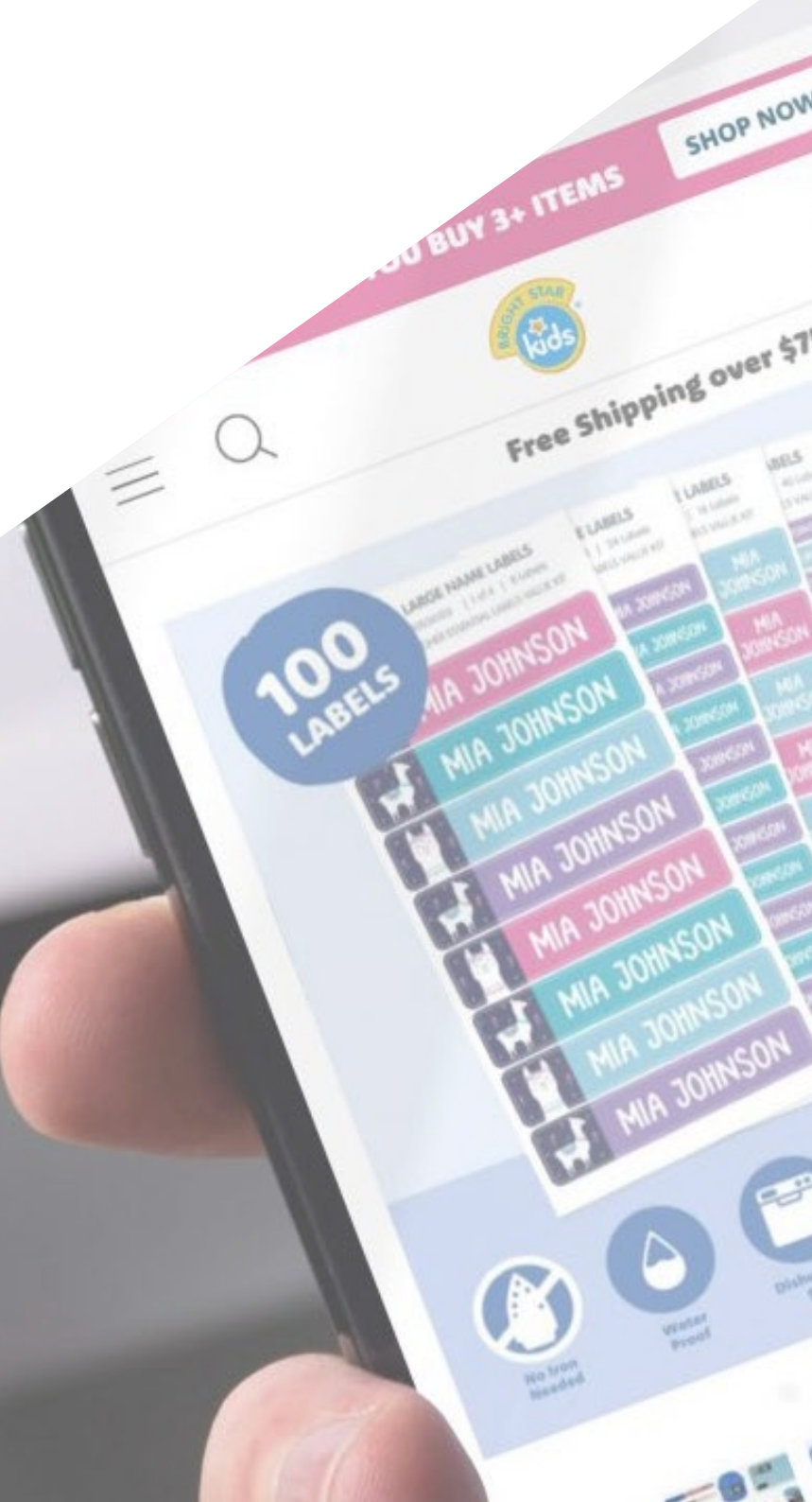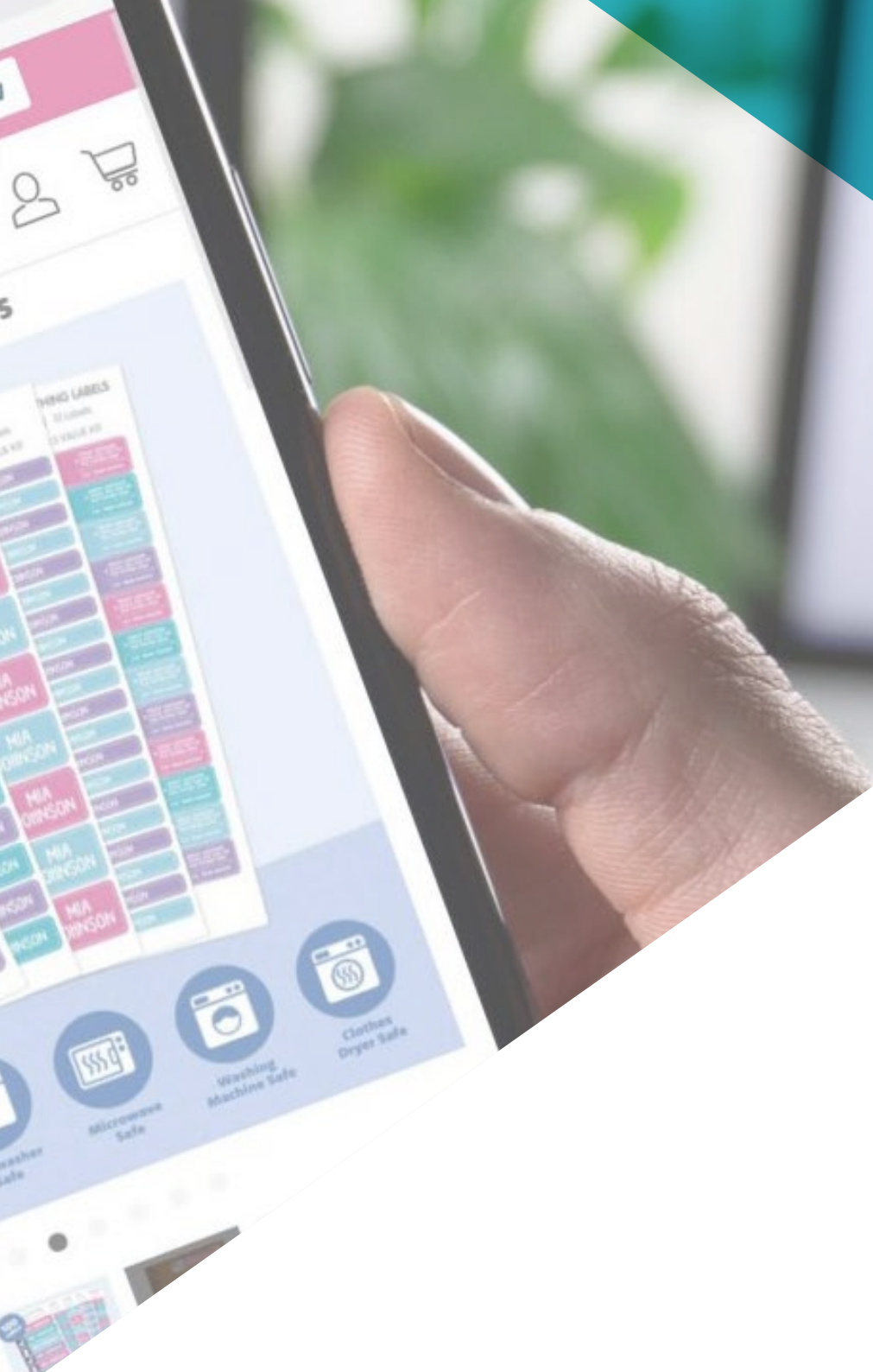
In only 6 months, you will be able to graduate with this Postgraduate Diploma in Mobile Application Development Life Cycle and Design. Enroll now"

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
- 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
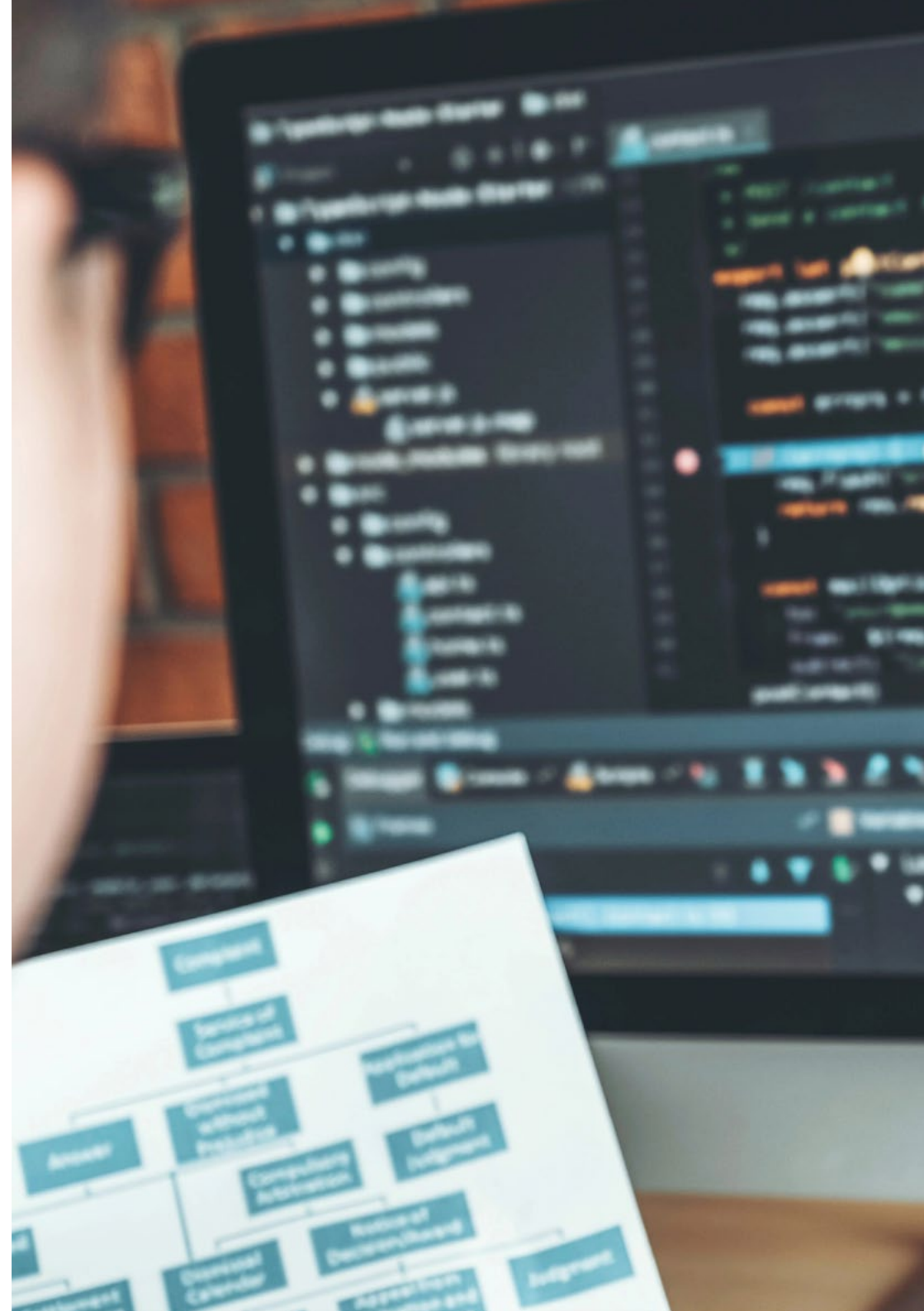
Specific Objectives

Module 1. Multi-Platform Web Development for Mobiles

- 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

Module 2. Continuous Integration Deployments for Mobiles

- Determine the worst-case scenario that gives rise to the need for this methodology
- Specify the requirements that the software must meet to be integrated
- Establish what is continuous integration, continuous delivery and continuous deployment
- Analyze DevSecOps
- Examine continuous monitoring
- Develop the implementations of the different stages

Module 3. Mobile User Experience

- Analyze the new type of user, their interactions and their journey through mobile applications and websites
- Determine the fundamental tools for web analytics, mobility and accessibility
- Specify micro-interaction assessment techniques and the design of customized experiences
- Establish how new disruptive technologies such as AI or IoT have taken customer experience to new standards
- Show how behavioral analytics generates a quantity and quality of data never seen in traditional analytics
- Develop new methodologies such as Design Thinking, focused on the user
- Propose basic and advanced prototyping and Wireframing tools

You will master the techniques for designing more efficient applications with better user experience"

03
Course Management

TECH has chosen leading professionals in the field of new technologies, solution architecture and digital infrastructure, Android programming experts and application developers to lead this Postgraduate Diploma. Thanks to their extensive experience, they offer a guarantee of quality of the content selected for this program, betting on the optimization of the learning process of students who seek in this space the contribution they need for their professional success and accompanying them throughout the process through the virtual platform.

"

TECH offers elite education for all. And it does so with the highest academic standards. With the best teachers"

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

Mr. Guerrero Díaz-Pintado, Arturo

- Director of Customer Experience for IBM
- Technical Pre-Sales Engineer through Watson Customer Engagement portfolio
- R&D Network Engineer at Telefónica
- Degree in Telecommunications Engineering from the University of Alcalá and the Danish Technical University

Dr. Ceballos van Grieken, Ángel

- Researcher specialized in the application of ICTs in education
- Author of the Project for the Creation of Educational Contents for Mobile Devices
- Teacher in postgraduate studies related to ICTs
- Teacher in university studies related to Computer Science
- Doctor in Education from Los Andes University
- Specialist in Educational Informatics, Simón Bolívar University

04
Structure and Content

To optimize the learning process in this program, the faculty has rigorously chosen exclusive content that will allow the graduate to understand in only 6 months Mobile Application Development Life Cycle and Design. From understanding the technologies to create hybrid Apps, their integration and continuous deployment to building a truly differential user experience. Distributed in 3 modules with exclusive and downloadable content from the virtual campus for greater convenience and efficiency in the learning process.

You will have at your disposal the most up-to-date and exclusive content for this program. 100% online and downloadable for your convenience"

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.   Framework Ionic
    1.3.1.   Framework Ionic Analysis
    1.3.2.   Framework Ionic 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
    1.6.4.   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 Frameworks
    1.8.1.   Electron Development Frameworks
    1.8.2.   Electron Development Frameworks 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

Module 2. Continuous Integration Deployments for Mobiles

2.1.   Software Life Cycle
    2.1.1.   Software Life Cycle
    2.1.2.   Agile Methodologies
    2.1.3.   The Continuous Agile Software Cycle
2.2.   Manual Product Development
    2.2.1.   Manual Integration
    2.2.2.   Manual Delivery
    2.2.3.   Manual Deployment
2.3.   Supervised Integration
    2.3.1.   Continuous Integration
    2.3.2.   Supervised Integration. Manual Revision
    2.3.3.   Static Automatic Revisions
2.4.   Logical Tests
    2.4.1.   Unit Tests
    2.4.2.   Integration Tests
    2.4.3.   Behavior Tests
2.5.   Continuous Integration
    2.5.1.   Continuous Integration Cycle
    2.5.2.   Dependencies between Integrations
    2.5.3.   Continuous Integration as a Repository Management Methodology

Module 3. Mobile User Experience

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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.

30%

10%

8%

tech

20%

25%

4%

3%

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 Diploma in Mobile Application Development Life Cycle and Design guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.

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

This **Postgraduate Diploma in Mobile Application Development Life Cycle and Design** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Certificate in Mobile Application Development Life Cycle and Design**

Official N° of hours: **450 h.**

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tech technological university

Awards the following

CERTIFICATE

to

Mr./Ms. _____, with identification number _____.
For having passed and accredited the following program

POSTGRADUATE DIPLOMA

in

Mobile Application Development Life Cycle and Design

This is a qualification awarded by this University, equivalent to 450 hours, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

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

June 17, 2020

Tere Guevara Navarro
Dean

Unique TECH Code: AFWORD23S   techtitute.com/certificates

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*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.

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Mobile Application Development Life Cycle and Design

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- » Duration: **6 months**
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