Postgraduate Diploma
Integration and User Experience

tech technological university

Postgraduate Diploma
Integration and User Experience

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

Website: **www.techtitute.com/pk/information-technology/postgraduate-diploma/postgraduate-diploma-integration-user-experience**

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01
Introduction

Customer Experience is one of the most valued fields in recent years. It is of great relevance in companies of all industries. This program places special emphasis on the fields of *User Experience* (UX) and U*ser Interface* (UI), as well as the application in this area of artificial intelligence and other disruptive technologies such as *Blockchain*, *Internet of Things* or Augmented Reality. This online education at the forefront of the academic market, analyzes the role of users in the construction of applications and products, through case studies based on real projects and experiences in European companies.

" *Thanks to this complete program you will develop advanced technical knowledge in the most widely used software tools in the industry"*

In the face of an innovative customer-centric culture that is transforming work teams, it is essential to develop new user-centric methodologies and new ways of working adapted to a changing environment. To this end, it is important to address the use of tools such as prototyping and *wireframing* that allow ideas to be communicated and conveyed at an early stage of development.

Acquiring the best skills enhances the IT profile in a market that demands user-centric professionals, combining their technical knowledge with a deep understanding of how customers access, use and value the products we develop.

Also, when it comes to organizations with a large number of applications to manage, it is essential to have automated pipelines that ensure the integration, delivery and continuous deployment of software in a repeatable, auditable and, above all, fast way. This program delves into the practice of *Continous Integration* & *Continous Deployment*, an essential part of DevOps.

On the other hand, as it is a completely online program, the graduate is not conditioned to a fixed schedule or the need to move to another physical location. They will only need a device with Internet access from which they can consult the rich content that will help them climb to the top of computer science. All this at any time of the day, combining your work and personal life with your academic life.

This **Postgraduate Diploma in Integration and User Experience** contains the most complete and up-to-date program on the market. The most important features include:

- The development of case studies presented by experts in Integration and user experience
- The graphic, schematic, and practical contents with which they are created, provide scientific and 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

You are facing an innovative customer-centric culture that is transforming work teams. Take this Postgraduate Diploma to update your knowledge and specialize in UX"

"Develops specialized knowledge on the most advanced tools and methodologies to build a solid and efficient user experience"

Combine your technical knowledge with a deep understanding of how customers access, use and value the products you develop.

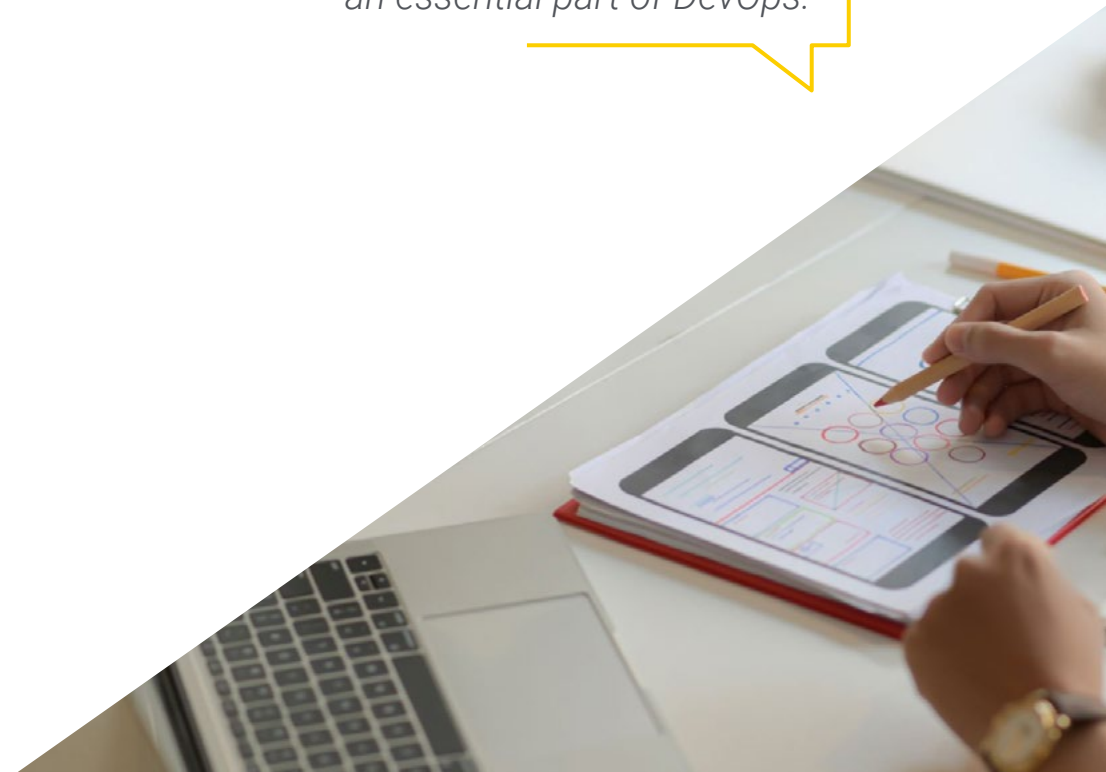*Analyze in depth Continous Integration & Continous Deployment, an essential part of DevOps.*

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.

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 education programmed to learn in real situations.

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

02
Objectives

The objective of this specialization is to prepare professionals in customer experience (UX/CX), with the knowledge and skills necessary to carry out their activity, using the most advanced protocols and techniques of the moment. Through a work approach that is totally adaptable to the students, this Postgaduate Diploma will progressively lead them to acquire the competencies that will propel them to a higher professional level. A unique educational program designed by professionals with extensive experience in the sector.
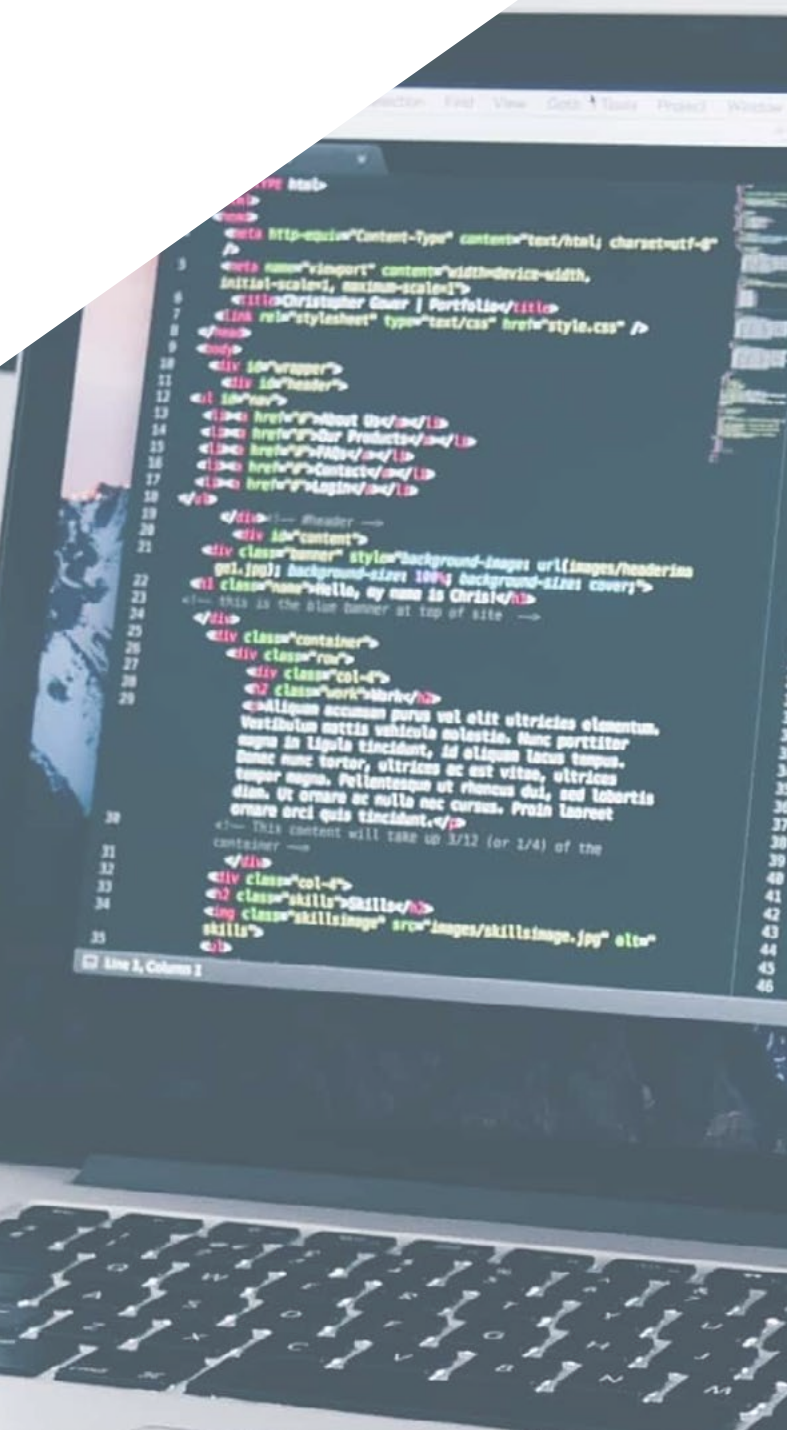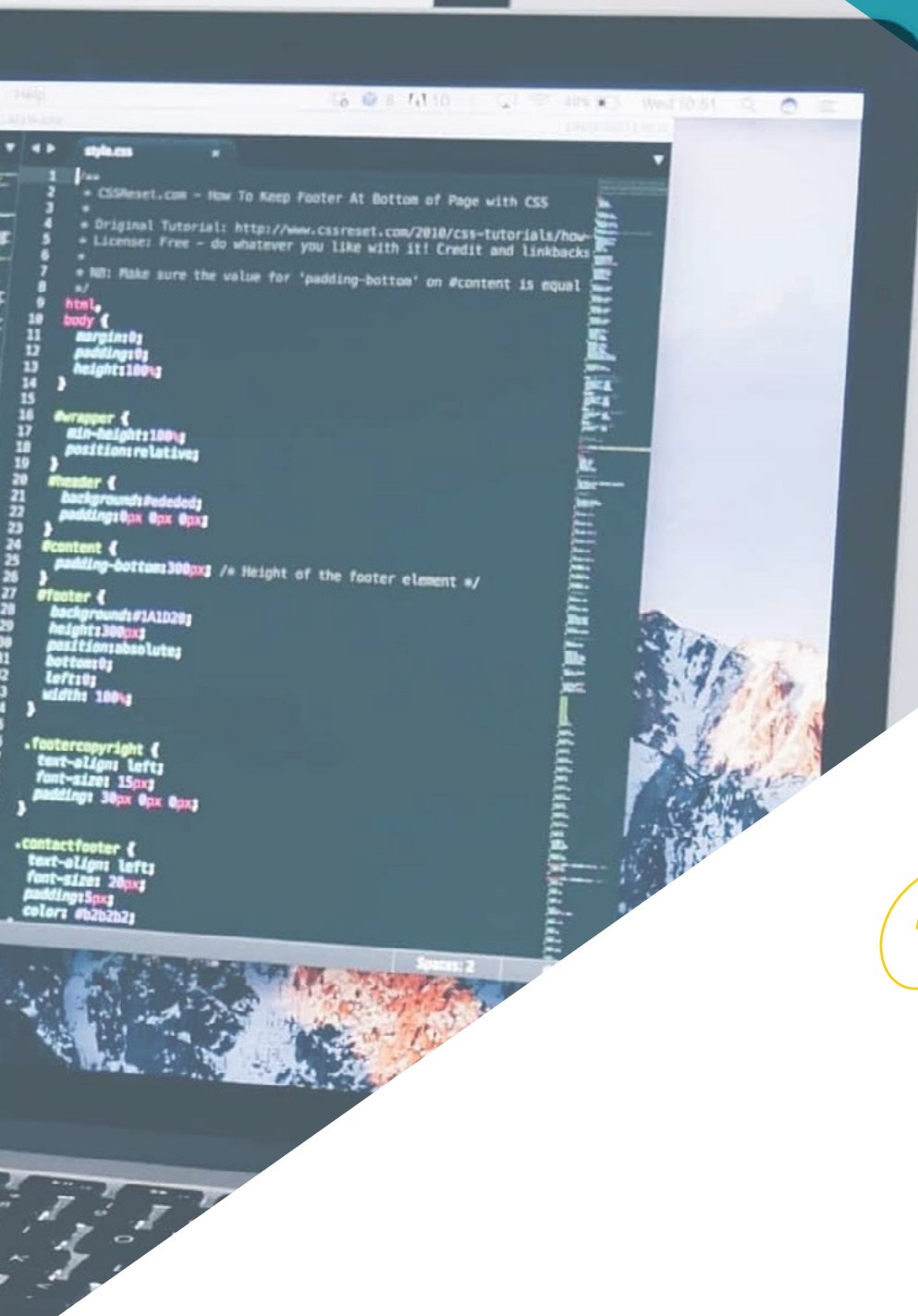
If you are looking for a quality program that will help you specialize in one of the fields with the most professional opportunities, this is your best option"

General Objectives

- Generate specialized knowledge on key aspects of programming
- Encourage algorithmic thinking
- Provide the necessary tools and skills for development
- Promote the adoption of Agile Methodologies for project execution
- Set the foundations of a customer-centric culture that changes the way products are developed and created, identify the most important methodologies
- Assess the most important tools and techniques in CX analysis and the common enterprise technology stack
- Determine how to develop a *User Experience* process from research to prototyping, testing and production start-up
- Analyze interface design, design theory, and how UIs can help exponentially improve the customer experience
- Develop specialized knowledge around CI/CD practice
- Analyze the different automation mechanisms for continuous integration and deployment
- Examine the interlocking of CI/CD processes within the DevOps framework
- Identify key technologies, tools and trends in the DevOps ecosystem

Specific Objectives

Module 1. Full Stack Developer

- Develop advanced programming knowledge
- Analyze the different Data Structures
- Examine Algorithm Design and Interpretation Techniques
- Prepare the development environment
- Promote the use of version control systems and code hosting platforms
- Promote the use of Agile Methodologies
- Delve into the key concepts and operation of the internet
- Increase command line skills

Module 2. UX CX. Customer Experience

- Analyze the importance of the user today and deepen in the *feedback* culture
- Specify omnichannel strategies and personalization based on micro-interactions
- Study the evolution of web analytics to behavioral analytics
- Determine how Artificial Intelligence has taken CX to the next level
- Establish the most important web experience, mobility and accessibility analytics techniques
- Present the *Design Thinking* methodology and the User Experience creation process
- Present concrete prototyping and *wireframing* tools, as well as *front-end* development *frameworks*

Module 3. Continuous Integration and Application Deployment

- Realize the benefits of adopting an automated application deployment model
- Establish the differences between continuous integration, continuous delivery and continuous deployment
- Determine the main features of DevOps
- Assess some of the fundamental tools for implementing CI/CD pipelines
- Develop the essential factors for developing applications ready to support CI/CD processes
- Examine container technologies as a fundamental pillar of CI/CD practice
- Identify practices, use cases, technologies and tools from the CI/CD ecosystem, essential to support the overall process
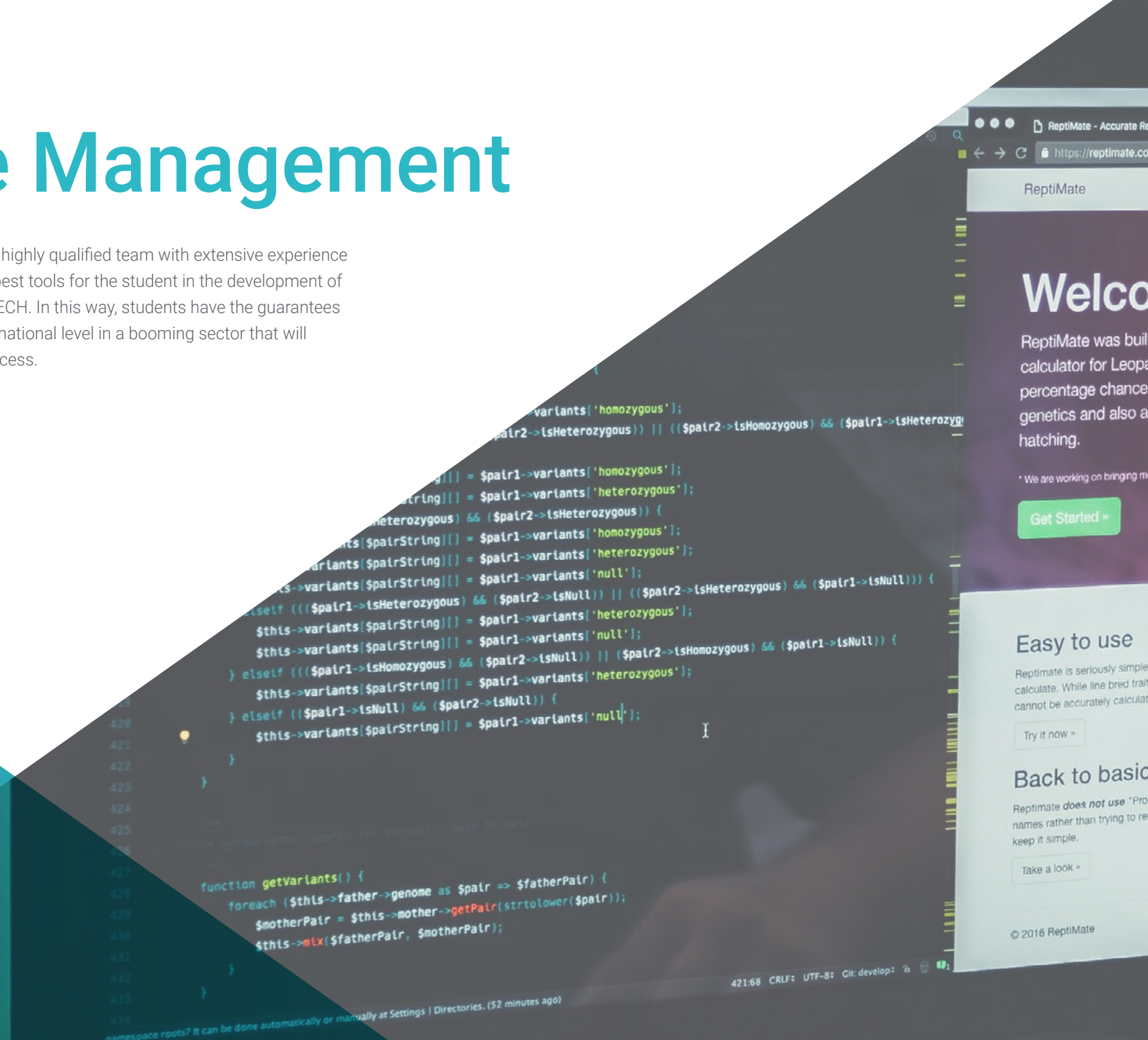
You will have access to extensive educational material, ranging from Full Stack Developer development to methods such as Design Thinking"

03
Course Management

This Postgraduate Diploma has a highly qualified team with extensive experience in the sector, which will offer the best tools for the student in the development of their skills during their career in TECH. In this way, students have the guarantees they need to specialise at an international level in a booming sector that will catapult them to professional success.

You will specialize in integration and user experience from professionals with years of experience in the sector and with the most innovative educational methodology"

Management

Mr. Olalla Bonal, Martín

- Technical sales blockchain specialist en IBM
- Blockchain Hyperledger and Ethereum Architecture Manager at Blocknitive
- Director of the Blockchain area at PSS Information Technologies
- Chief Information Officer at ePETID - Global Animal Health
- IT Infrastructure Architect at Bankia - wdoIT (IBM - Bankia Join Venture)
- Project director and manager at Daynet integral services
- Director of Technology at Wiron Construcciones Modulares
- Head of IT Department at Dayfisa
- Head of IT department at Dell Computer, Majsa and Hippo Viajes
- Electronics Technician in IPFP Juan de la Cierva

Professors

Mr. Frias Favero, Pedro Luis
- Co-founder and CTO at Swearit
- COO at Key Identification
- Degree in Industrial Engineering from Yacambú University, in Venezuela
- Expert in Blockchain and Decentralized Applications at the University of Alcalá, Spain

Mr. Guerrero Díaz-Pintado, Arturo
- Client Executive for the Santander Group, at IBM
- Associate Professor at ESIC, EUDE Business School and MBIT
- Pre-sales technical engineer and professional services consultant at IBM
- R&D Network Engineer at Telefónica
- Graduate in Telecommunications Engineering at Alcalá University

Mr. Reyes Oliva, Luis
- Development developer and cloud architect at IBM
- Technical client manager for integrated accounts for BBVA at IBM
- Cloud Executive Selling at IBM
- Cloud and DevOps Architect at IBM
- Customer Software Architect at Telefónica
- Technical Solutions Architect at Rational
- Software Engineering Manager at Borland
- Software Development and Quality Assurance Manager at Altana Consulting
- Degree in Computer Engineering from Pontificia University of Salamanca, in Madrid

04

Structure and Content

The structure of the contents has been designed by the best professionals in the field of computer and industrial engineering, with extensive experience and recognized prestige in the profession. Aware of the relevance of the current relevance of education in order to deepen in this field of knowledge, they have developed a rich content in order to humanistically enrich the student and raise their level of knowledge in Integration and User Experience. All this, using the latest educational technologies available.

Abandon conventional linear learning thanks to the Relearning system and specialize in your sector according to your time"

Module 1. Full Stack Developer

1.1. *Full Stack* Developer I. Programming and Languages
 1.1.2. Programming
 1.1.3. Programming Roles
 1.1.4. Languages and *Frameworks*
 1.1.5. Algorythm
 1.1.6. Characteristics of an Algorithm
1.2. *Full Stack* Developer II. Typology
 1.2.1. Variables and Constants
 1.2.2. Types
 1.2.3. Operators
 1.2.4. Declarations
 1.2.5. Loops
 1.2.6. Functions and Objects
1.3. Data Structure in Development
 1.3.1. Linear Structure Types
 1.3.2. Functional Structure Types
 1.3.3. Tree Structure Types
1.4. Algorithm Design and Interpretation
 1.4.1. Parallelism in Development. Divide and Conquer
 1.4.2. Voracious Algorithms
 1.4.3. Dynamic Programming
1.5. Environment and Tools for *Full Stack Developer* Oriented Development
 1.5.1. Preparation of the Environment for Mac OS
 1.5.2. Preparation of the Environment for Linux
 1.5.3. Preparation of the Environment for Windows

1.6. Command Line. Typology and Operation
 1.6.1. The Terminal
 1.6.2. Emulators
 1.6.3. Command Interpreter
 1.6.4. First Commands
 1.6.5. Navigation
 1.6.6. Managing Files and Folders Using the Command Line Interface
 1.6.7. *Secure Shell*. SSH
 1.6.8. Advanced Commands
1.7. Git. Software Repository
 1.7.1. Git Software Repository
 1.7.2. Using Git
 1.7.3. Software Repository
 1.7.4. Branches
 1.7.5. Duty Cycle
 1.7.6. Commands
1.8. Code Versioning Hosting Service
 1.8.1. Code Versioning Hosting Service
 1.8.2. Suppliers
 1.8.3. Repositories
1.9. Internet
 1.9.1. Internet
 1.9.2. Protocols Used in WWW
 1.9.3. HTTP Protocol
1.10. Methodologies in *Full Stack* Development
 1.10.1. *Scrum*
 1.10.2. XP
 1.10.3. *Design sprint*

Module 2. UX CX. Customer Experience

2.1.   *Customer Experience*
   2.1.1.   *Customer Experience*(CX)
   2.1.2.   New Consumer Needs
   2.1.3.   *Feedback* in *Customer Experience*
2.2.   Innovative Technologies
   2.2.1.   Thinking Machines
   2.2.2.   New Ways of Sharing Information
   2.2.3.   Measuring What Cannot Be Measured
2.3.   Channels of Interaction with the User
   2.3.1.   Customer Analysis
   2.3.2.   Personalization
   2.3.3.   Multiple User Interaction Channels
2.4.   User Analytics
   2.4.1.   Web Structure
   2.4.2.   User Analytics
   2.4.3.   Advanced User Analytics
2.5.   Nielsen and its Impact on CX
   2.5.1.   Nielsen and its Impact on CX
   2.5.2.   *User Testing* Techniques
2.6.   Customer *Experience Tools*
   2.6.1.   Advanced Tools
   2.6.2.   Mobility
   2.6.3.   Accessibility
2.7.   New Methodologies
   2.7.1.   The User's Challenge
   2.7.2.   UX Process
   2.7.3.   User Research

2.8.   Communication of a Design
   2.8.1.   *Wireframing*
   2.8.2.   Design Communication Tools
   2.8.3.   Advanced Design Communication Tools
2.9.   UI design
   2.9.1.   UI design
   2.9.2.   Web and Mobile Interfaces
   2.9.3.   Web and Mobile Components
2.10. Elaboration of a CX
   2.10.1. Elaboration of a CX
   2.10.2. Design of New Experiences
   2.10.3. Interfaces

Module 3. Continuous Integration and Application Deployment

3.1.   Continuous Integration and Continuous Deployment: CI/CD
   3.1.1.   Use of Continuous Integration and Continuous Deployment (CI/CD)
   3.1.2.   Differences Between Continuous Integration and Continuous Deployment (CI/CD)
   3.1.3.   Continuous Integration and Continuous Deployment. Benefits of CI/CD
3.2.   New Development Paradigms
   3.2.1.   From *Waterfall* to DevOps
   3.2.2.   Style Guide: The 12 Factors
   3.2.3.   Cloud Native, Microservices and *Serverless*
3.3.   DevOps, Beyond CI/CD
   3.3.1.   DevOps
   3.3.2.   DevOps. *Continuous Everything*
   3.3.3.   DevOps vs SRE
3.4.   Container Technology I - Docker
   3.4.1.   Containers. Contribution
   3.4.2.   Docker. Architecture
   3.4.3.   Deployment Process with Docker

Include in your educational program a in Integration and User Experience: a highly qualified added value for any professional in the IT field"

05
Methodology

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

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

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

Case Study to contextualize all content

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

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

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

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

A learning method that is different and innovative

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

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

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

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

Relearning Methodology

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

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

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

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

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

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%

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.

20%

25%

4%

3%

06
Certificate

The Postgraduate Diploma in Integration and User Experience 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 Integration and User Experience** 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 Diploma in Integration and User Experience**

Official Nº of Hours: **450 h.**

tech technological university

Awards the following
CERTIFICATE
to

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

POSTGRADUATE DIPLOMA
in

Integration and User Experience

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

*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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