Postgraduate Certificate
Mobile Application Development Programming Methodologies

tech technological university

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Mobile Application Development Programming Methodologies

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

Website: **www.techtitute.com/in/information-technology/postgraduate-certificate/mobile-application-development-programming-methodologies**

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01
Introduction

The relentless competition in the market of applications for mobiles raises the level of demand from developers, looking for fast and efficient products; based on quality and sustainable in terms of scalability. Making the right decision as to which methodology to follow to achieve these objectives is why the professional must be well qualified. For this reason, this qualification has been designed to teach the most up-to-date programming methodologies in the development of applications for mobile devices, with exclusive content designed by experts and through a 100% online study system, achievable in 6 weeks.

Learn in-depth about the different processes of software development with the implementation of the Waterfall, Spiral, RUP and Mode models"

Most people access the internet through their cell phones and the trend is increasing worldwide with the constant technological advances and the diverse capabilities offered by these devices. It is estimated that there are more than 7 billion mobile devices in the world, and they need different applications to function and be operational.

This Postgraduate Certificate in Mobile Application Development Programming Methodologies addresses the key concepts to plan, design, build and test software that provide effective solutions to the user's day-to-day needs. It should be noted that software development methodologies provide a guide to achieve quality products and avoid technical debt.

This refresher program will allow the student to analyze software development processes from the traditional and agile point of view, learning about design and diagramming techniques, design patterns, software validation techniques and, finally, exploring the different quality reference frameworks. It should be noted that in the development of a software product it is of utmost importance to build a criterion that facilitates decision-making in each project.

Therefore, students will be equipped with the knowledge in terms of quality, testing, behavioral patterns, structural design patterns, creative design patterns, behavioral and structural UML diagrams; as well as UML language, agile software development process and different methodologies.

This, thanks to the content selected by the expert teachers who direct this program and who, in addition, will accompany them throughout the learning process through the various multimedia resources available on the TECH platform, a modern study system that allows students to balance their daily responsibilities with training and graduate in a maximum of 6 weeks, without major investments of time and effort.

This **Postgraduate Certificate in Mobile Application Development Programming Methodologies** 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

If you want to expand your area of expertise in cross-platform mobile technology consulting, or build your own business from app development, this program is for you"

This program is aimed at professionals working in companies and institutions that have decided to integrate mobile technology into organizational processes, sales, marketing, etc"

Understand the Unified Modeling Language UML, for implementation in your software developments.

You will be able to access the syllabus from the first day, as it will be available 100% online for you to consult it at your own pace.

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

The purpose of this Postgraduate Certificate is to provide a guide to develop quality products and avoid technical debt, as well as to provide the professional with the knowledge that will help them build a criterion that will facilitate decision-making in each project. Enabling them to deliver more efficiently and raising their level of professionalism, delving into the different design patterns present in the software industry.

Raise the level of your professional profile with specific specialization that will provide you with immediate improvements"

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

- Explore traditional software development processes
- Analyze agile development processes
- Promote development practices
- Examine the different representation and diagramming techniques
- Deepen in the different design patterns present in the software industry
- Explore different software testing techniques
- Recognize the rules and standards of quality reference in development

Learn the main Programming Methodologies in Mobile Application Development in this Postgraduate Certificate"

03
Course Management

Professionals with more than 25 years of experience in the IT sector are in charge of managing this refresher program. Teachers with extensive knowledge and experience in new technologies, solutions architecture and digital infrastructure, experts in Android programming and application developers, offer a guarantee of quality to the program for those who are committed to improving their processes and want to provide innovative and efficient solutions in their work environments.
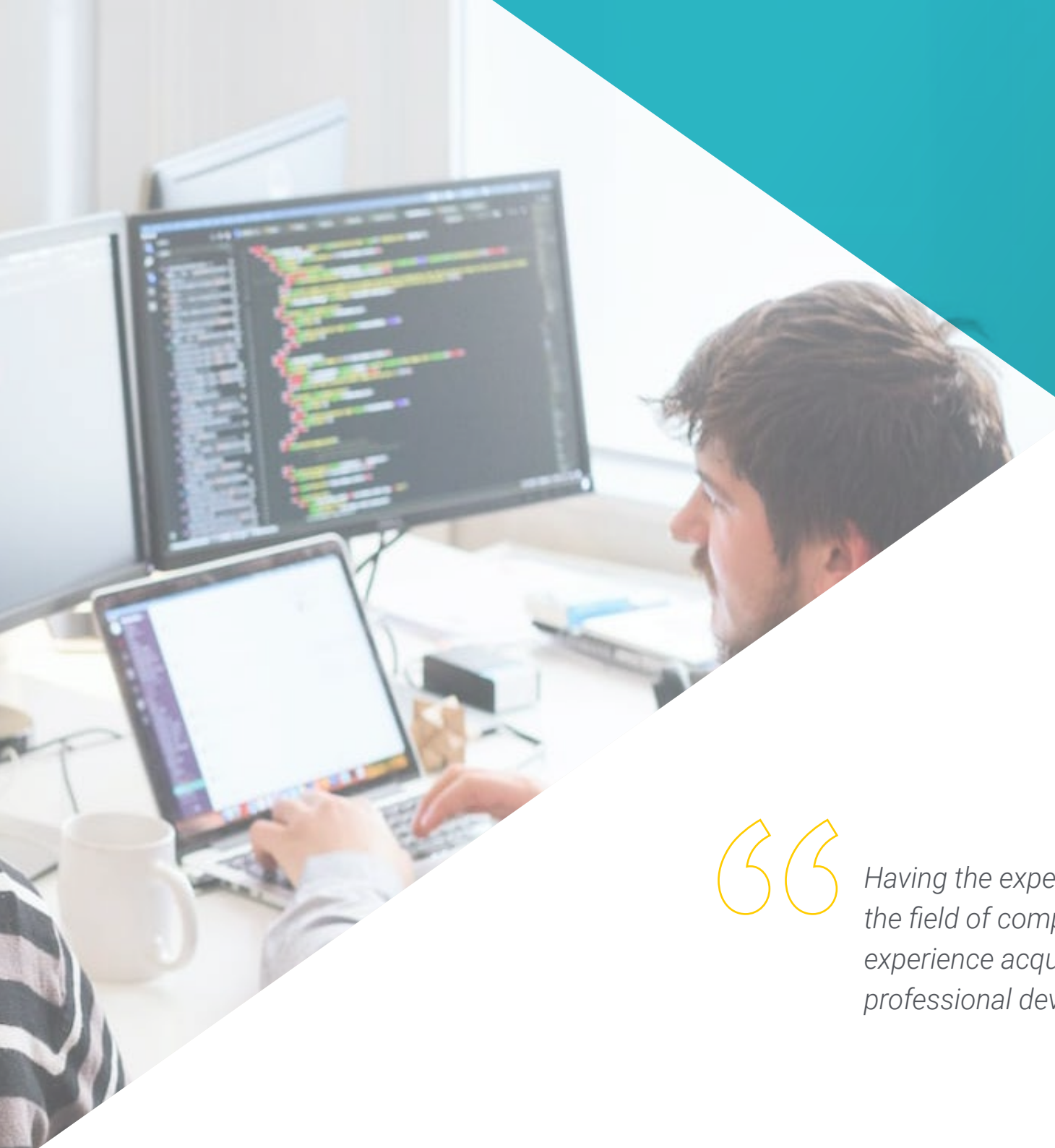
Having the experience of renowned professors in the field of computer engineering will make your experience acquire the value it needs for your professional development"

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. Frias Favero, Pedro Luis

- Lead Blockchain Architect at EY
- Co-founder and Technical Director of Swear IT Technologies
- IT Support Director in Mexico, Colombia and Spain for Key Business One
- Degree in Industrial Engineering from Yacambú University
- Expert in Blockchain and Decentralized Applications from the University of Alcalá de Henares

04
Structure and Content

Today's professional needs a qualification that offers agile and comfortable alternatives. The student will have the syllabus of this Postgraduate Certificate from the first day and its presentation in different written and audiovisual formats, through a modern and 100% online methodology, will provide the expected flexibility for those who wish to professionalize without sacrificing their current activities. In addition, expert teachers will accompany students throughout the process in a personalized and group setting, and they will be able to share experiences with other professionals in the forums and meeting rooms.

With TECH Technological University, in addition to quality, you will find a variety of resources for a dynamic and effective learning process"

Module 1. Mobile Application Development Programming Methodologies

1.1.   Software Development Processes
    1.1.1.   Waterfall
    1.1.2.   Spiral
    1.1.4.   RUP
    1.1.5.   V-Model

1.2.   Agile Software Development Processes
    1.2.1.   Scrum
    1.2.2.   XP
    1.2.3.   Kanban

1.3.   Unified Modeling Language (UML)
    1.3.1.   UML
    1.3.3.   Types of Modeling
    1.3.4.   Basic Blocks of UML

1.4.   UML Behavioral Diagrams
    1.4.1.   Activity Diagram
    1.4.2.   Use Case Diagram
    1.4.3.   Interaction Overview Diagram
    1.4.4.   Timing Diagram
    1.4.5.   State Machine Diagram
    1.4.6.   Communication Diagram
    1.4.7.   Sequence Diagram

1.5.   UML Structural Diagrams
    1.5.1.   Class Diagram
    1.5.2.   Object Diagram
    1.5.3.   Component Diagram
    1.5.4.   Composite Structure Diagram
    1.5.5.   Deployment Diagram

1.6.   Creative Design Patterns
    1.6.1.   Singleton
    1.6.2.   Prototype
    1.6.3.   Builder
    1.6.4.   Factory
    1.6.5.   Abstract Factory

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.

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.

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

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%
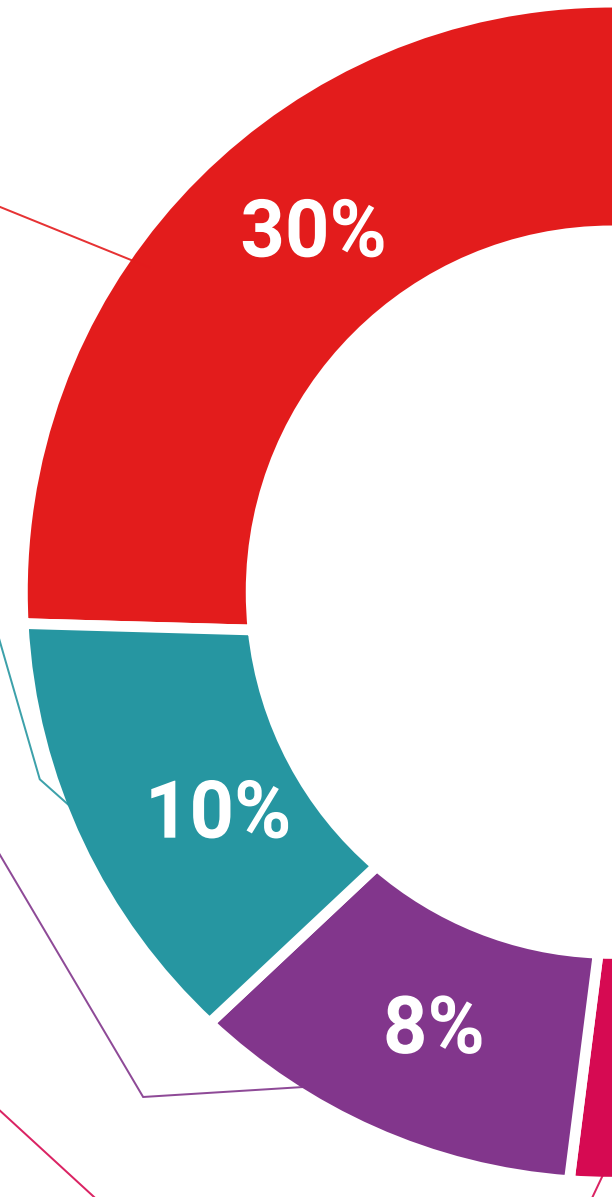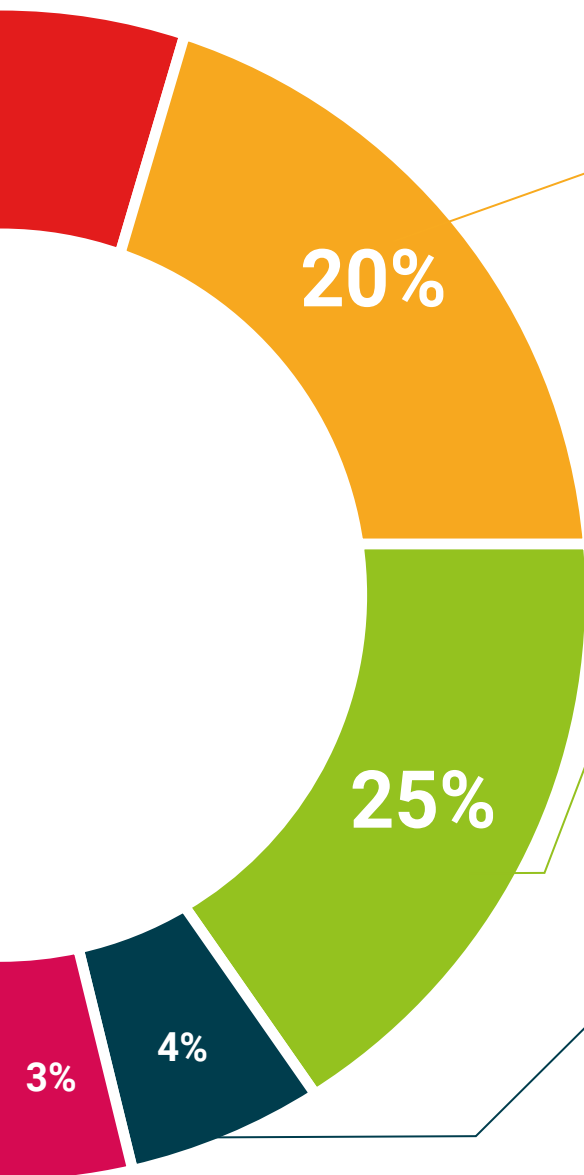
Case Studies

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.

20%

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".

25%

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.

4%

3%

06
Certificate

The Postgraduate Certificate in Mobile Application Development Programming Methodologies guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate 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 Certificate in Mobile Application Development Programming Methodologies** 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 Certificate** issued by **TECH Technological University** via tracked delivery*.

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

Title: **Postgraduate Certificate in Mobile Application Development Programming Methodologies**

Official N° of hours: **150 h.**

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

POSTGRADUATE CERTIFICATE
in
Mobile Application Development
Programming Methodologies

This is a qualification awarded by this University, equivalent to 150 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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