Postgraduate Certificate
Apex Programming for Salesforce

tech global university

Postgraduate Certificate
Apex Programming for Salesforce

» Modality: **online**
» Duration: **12 weeks**
» Certificate: **TECH Global University**
» Accreditation: **12 ECTS**
» Schedule: **at your own pace**
» Exams: **online**

Website: **www.techtitute.com/us/information-technology/postgraduate-certificate/apex-programming-salesforce**

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01
Introduction

Apex Programming for Salesforce has become a crucial aspect for companies, automating a wide range of processes from lead capture to customer service to inventory management. In this way, this programming language helps to improve both productivity and efficiency across organizations. In this sense, employees can access the information they need quickly and perform tasks more efficiently, which increases the competitiveness of companies. Given these benefits, it is essential that IT professionals have a good grasp of the most innovative development tools. To help them, TECH is launching an online program that will focus on Programming with Apex.

"
Thanks to this online Postgraduate Certificate, you will implement the most effective security practices in the development of Apex applications, including the protection of sensitive data"

Error Framework is an essential part of software development on any platform, including Salesforce. By detecting bugs, IT professionals can diagnose their problems within their applications and thus improve the user experience. In addition. By monitoring bugs, experts can identify the most recurring problems, which allows for fixes and improvements to the system. Error handling also helps protect both security and data integrity. For example, by properly addressing data validation issues, professionals will be able to avoid inserting incorrect or malicious information into their projects.

In this situation, TECH creates a cutting-edge Postgraduate Certificate in Apex Programming for Salesforce. The curriculum will delve into issues such as the Developer Console, exception management or Apex Triggers. This will enable graduates to automate business processes such as the execution of scheduled tasks or the mechanization of repetitive tasks. The syllabus will also delve into the relevance of Unit Tests to verify the correct operation of specific portions of Apex code. At the same time, the academic content will address the Platform Event Bus with the objective of enabling students to process large volumes of data and monitor system performance.

The methodology of this program reinforces its innovative character. TECH provides students with a 100% online educational environment, thus adapting to the needs of students and giving them the flexibility to combine their studies with the rest of their daily commitments. It also uses the Relearning teaching system, based on the repetition of key concepts to fix knowledge and facilitate learning. In addition, computer scientists will find in the Virtual Campus a complete virtual library full of dynamic multimedia resources (such as interactive summaries, case studies or specialized readings) to proactively reinforce the contents.

This **Postgraduate Certificate in Apex Programming for Salesforce** contains the most complete and up-to-date educational program on the market. The most important features include:

- The development of practical cases presented by experts in Salesforce Programming
- The graphic, schematic and practical contents with which it is conceived provide complete and practical information on those disciplines that are essential for professional practice
- Practical exercises where the self-assessment process can be carried out to improve learning
- Its 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

> "
> *A highly-skilled university program created to boost your career as an IT professional and lead you to the front line of competitiveness in the industry"*

" *You will handle the Batch Apex Architecture to process large volumes of data in an efficient and scalable way on the platform"*
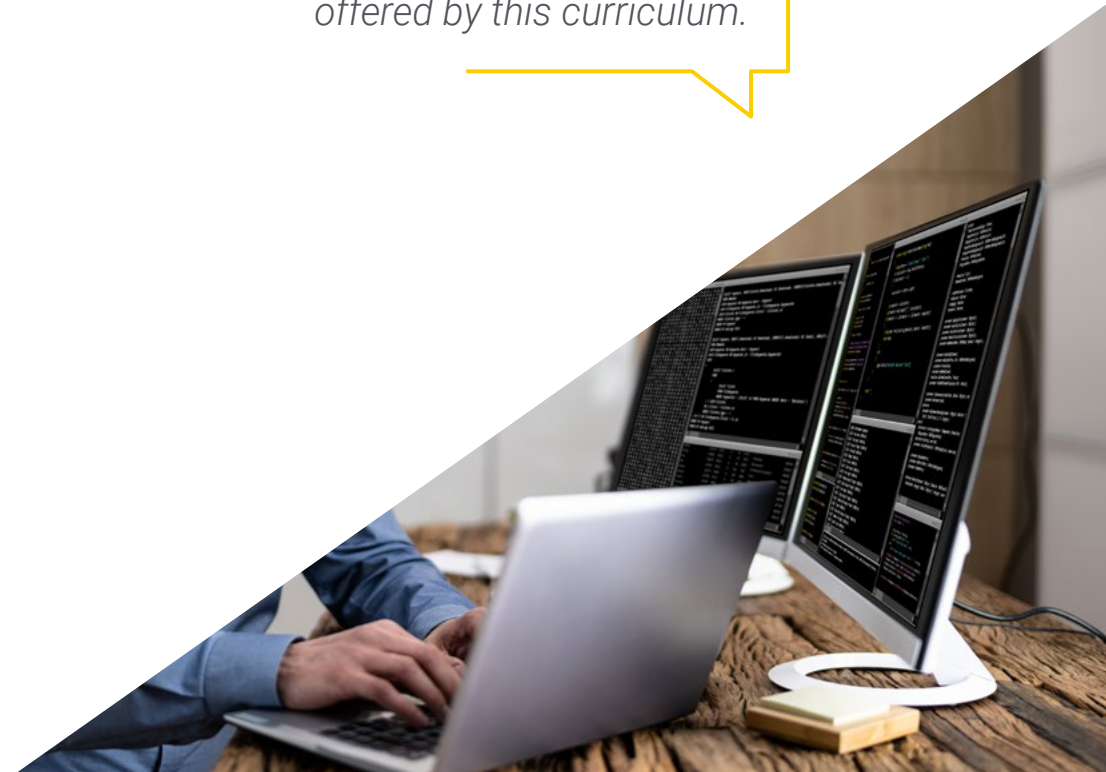
Looking to master the most cutting-edge Frameworks Automation tools? Achieve it through this program in only 360 hours.

Thanks to the Relearning method, you will be able to consolidate the key concepts offered by this curriculum.

The program's teaching staff includes professionals from the field 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 prepare for 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 course. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.

02
Objectives

With this Postgraduate Certificate, IT professionals will create the most innovative custom applications in Salesforce using the Apex programming language. In this sense, graduates will automate business processes in this platform through the use of triggers, batch processes and other mechanisms. In addition, students will understand the principles of security in Salesforce and implement sensitive data protection practices, as well as the prevention of security vulnerabilities. They will also enhance their skills in identifying and troubleshooting code problems through debug log analysis techniques.

*You will be able to write efficient and optimized code in Apex to certify effective application performance"*

General Objectives

- Examine the essential fundamentals of Apex programming
- Identify key tools and resources for Apex programming
- Develop practical skills in creating custom solutions
- Propose innovative and creative solutions to development problems
- Delve into Salesforce's advanced capabilities to improve code efficiency and ensure optimal performance while avoiding exceeding the limits set by the platform
- Explore frameworks that allow to structure development in a correct way and that promote reuse and performance
- Identify advanced development tools to facilitate coding and debugging of bugs
- Promote the use of good development practices aligned with Salesforce-defined standards

You will create triggers in Apex that respond to specific events in Salesforce records, such as data insertion or update"
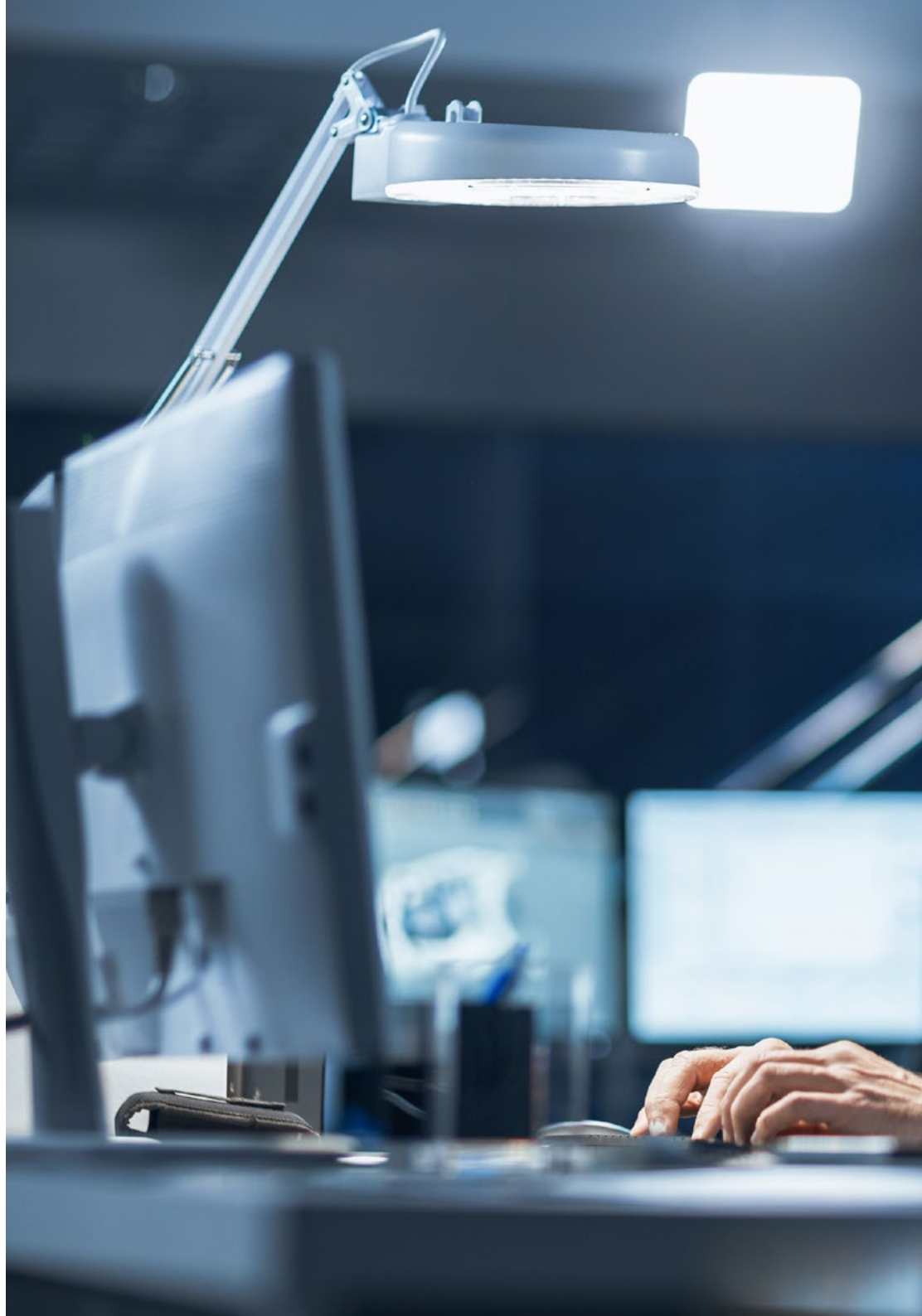
Specific Objectives

- Master Apex development tools

- Evaluate the differences between Java and Apex, delving into the features that distinguish Apex from Java

- Analyze the possibilities of data access from Apex

- Develop synchronous and asynchronous processes, understanding their limitations and applying best practices

- Evaluate different Trigger Frameworks with emphasis on the characteristics of each one and the benefits they provide

- Design an error handling mechanism, in which any uncontrolled error occurring during the execution of the application's custom code is recorded in detail

- Examine the SOLID principles that enable the creation of efficient, robust, and scalable software

- Generate expertise in Apex Enterprise Patterns that define how to organize Apex code to ensure maintainability, scalability and robustness

Course Management

In order to preserve intact the high quality that defines its university degrees, TECH carefully selects the specialists who make up its teaching staff. For this Postgraduate Certificate, TECH has the services of a group of professionals in the field of Apex Programming for Salesforce. These experts have a long career, where they have provided innovative solutions to prestigious technological institutions. Undoubtedly, a guarantee for students, who will enjoy an academic option that will allow them to experience a significant leap in quality in their careers as computer scientists.

You will have the help of the best teaching staff and the most advanced teaching materials, ensuring that your learning process will be effective"

Management

Mr. Tovar Barranco, Iosu Igor

- Chief Architect at NTT Data Group
- Software Architect at Beeson Technologies
- Systems Administrator at Araldi
- .NET Developer at Gabinete de Gestión
- JAVA Programmer and J2EE Application Developer
- Senior Technician in Computer Applications Development at Centro de Estudios AEG
- Specialized in SOA Architectures
- Various certifications in Salesforce

Professors

Mr. Latino Maradiaga, Mario Alfonso
- Expert Architect on multiple projects in the Infrastructure Sector
- Salesforce Expert Architect in Private Security Company
- Salesforce Lead Architect in the Brewing Industry
- Salesforce Architect in the Mining and Energy Sector
- Salesforce Engineer in the Agrochemical Industry
- Salesforce Engineer in the Healthcare and Pharmaceutical Distribution Sector
- Certification in: Java SE 7 Fundamentals, Oracle Database: Program with PL/SQL, Salesforce Service Cloud Consultant, Salesforce App Builder, and Salesforce Advanced Administrator K

Ms. Godoy Rodríguez, Tania
- Architect at Salesforce Center of Excellence
- Salesforce Certified Administrator
- Salesforce Certified Platform App Builder
- Salesforce Certified Platform Developer I
- Salesforce Certified Sales Cloud Consultant
- Salesforce Certified Sharing and Visibility Designer
- Salesforce Certified OmniStudio Developer
- Salesforce Certified OmniStudio Consultant
- Salesforce Certified Industries CPQ Developer
- Salesforce Certified Net Zero Cloud Accredited Professional
- Specialization in Telecommunication Systems from the University of Malaga
- Master's Degree in Telecommunication Engineering from the University Carlos III
- Technical Telecommunication Engineer from the University of Malaga

Ms. Latino Guido, Katherine Elisa
- Systems Administrator in mobile and fixed Telephone companies
- Troubleshooting with Computer Systems in Online Teaching Company
- Superior Degree in Development of Multiplatform Applications by CPIFP Los Enlaces
- Intermediate Degree in Microcomputer Systems and Networking

Mr. Santos Arias, Millán
- Chief Technical Architect - CoE Salesforce in NTT Data
- Salesforce Lead Architect - CoE Salesforce en Everis Spain, S.L.U.
- Senior Analyst at Everis Spain, S.L.U.
- Salesforce Certified Administrator
- Salesforce Certified Platform App Builder
- Salesforce Certified Platform Developer I
- Salesforce Certified Sharing and Visibility Architect
- Salesforce Certified Data Architecture and Management Designer
- Salesforce Certified Development Lifecycle and Deployment Architect
- Salesforce Certified Identity and Access Management Architect
- Salesforce Certified Integration Architect
- Salesforce Certified System Architect
- Salesforce Certified Application Architect
- Salesforce Certified Experience Cloud Consultant
- Degree in Computer Engineering from the University of Granada

04
Structure and Content

This university program will provide computer scientists with a solid understanding of Apex Programming concepts. The academic path will provide students with state-of-the-art development tools to efficiently write, debug and maintain code. At the same time, the syllabus will delve into the importance of Apex Triggers to automate business processes in an optimal way. In addition, the teaching materials will delve into the SOLID Principles, with the goal of enabling graduates to create more modular, flexible and easy-to-understand code.

You will master Apex coding syntax and conversions to develop custom applications in Salesforce"

Module 1. APEX Programming for Salesforce

1.1.   Development Tools
    1.1.1.   Developer Console
    1.1.2.   Recommended IDE for Apex Programming
    1.1.3.   Salesforce Extensions for VS Code
    1.1.4.   Code Builder

1.2.   Programming with Apex
    1.2.1.   Apex Programming
    1.2.2.   Apex Transaction, Methods and Static Variables
    1.2.3.   Exception Handling in Apex

1.3.   Data Access from Apex
    1.3.1.   SOQL Structures and Fundamentals in Apex
    1.3.2.   Apex Variables in SOQL and SOSL
    1.3.3.   DML Statements against Methods of the System Database Class

1.4.   Apex Triggers
    1.4.1.   Triggers and Execution Order
    1.4.2.   Context Variables
    1.4.3.   Bulk Triggers and Best Practices

1.5.   Asynchronous Apex
    1.5.1.   Future Apex
    1.5.2.   Queueable Apex and Execution Chaining
    1.5.3.   Apex Scheduler

1.6.   Batch Apex
    1.6.1.   Batch Apex Architecture
    1.6.2.   Batch Jobs
    1.6.3.   Limitations of Batch Apex

1.7.   Security in Apex
    1.7.1.   Apex Applications: Security Methods
    1.7.2.   Digital Experiences: Methods for Web Sites
    1.7.3.   Crypto Layer of Apex

1.8.   Record Sharing using Apex
    1.8.1.   Sharing Managed by Apex
    1.8.2.   Sharing Recalculation with Apex
    1.8.3.   Assignment of Territories to Opportunities

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%

20%

25%

4%

3%
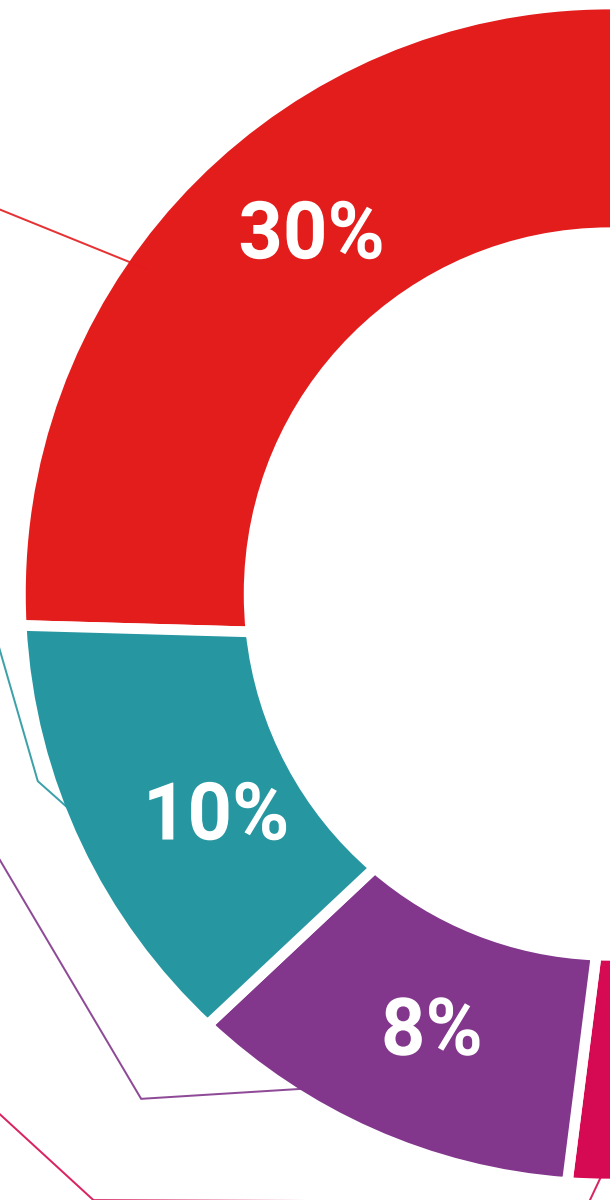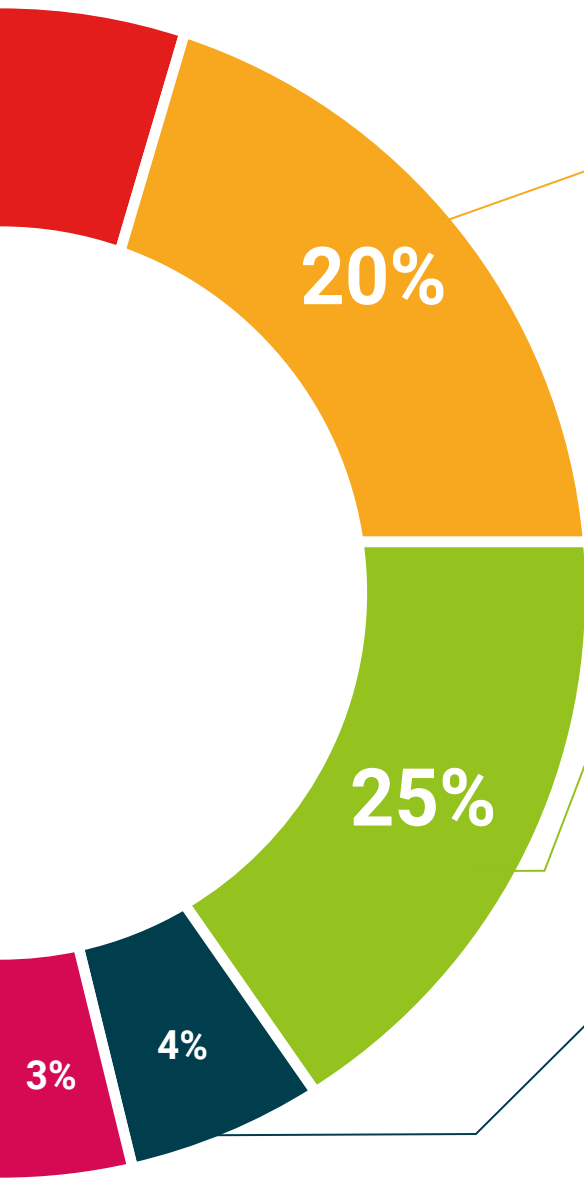
Case Studies

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.

Certificate

The Postgraduate Certificate in Apex Programming for Salesforce guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.

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

This private qualification will allow you to obtain a**Postgraduate Certificate in Apex Programming for Salesforce** 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.
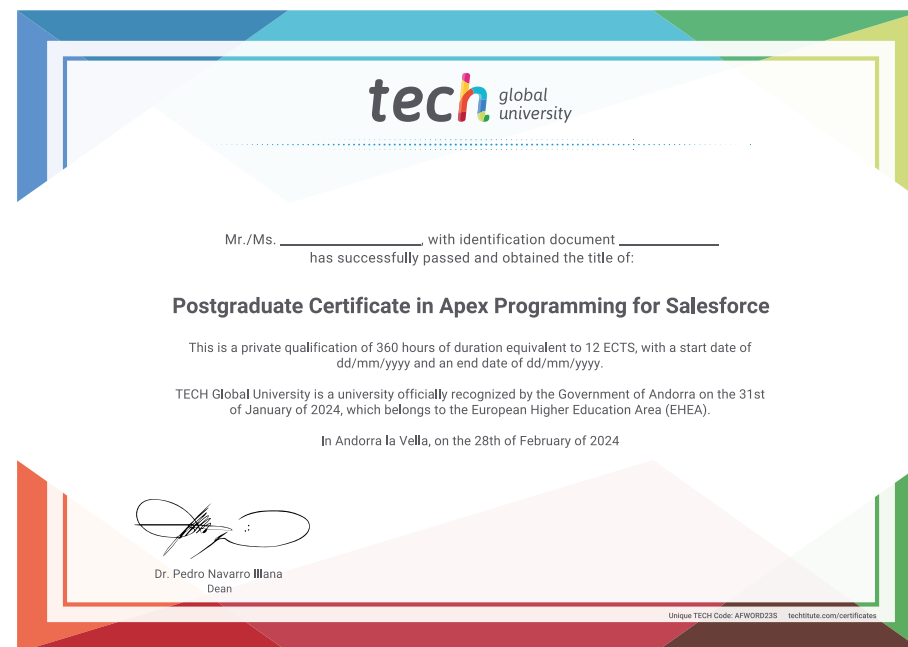
This **TECH Global University** private qualification, is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Apex Programming for Salesforce**

Modality: **online**

Duration: **12 weeks**

Accreditation: **12 ECTS**

tech global university

Mr./Ms. _____, with identification document _____ has successfully passed and obtained the title of:

Postgraduate Certificate in Apex Programming for Salesforce

This is a private qualification of 360 hours of duration equivalent to 12 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Dean

Unique TECH Code: AFWORD23S   techtitute.com/certificates

*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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