Postgraduate Certificate
Application Development for Android Systems

tech technological university

Postgraduate Certificate
Application Development for Android Systems

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

Website: **www.techtitute.com/pk/information-technology/postgraduate-certificate/application-development-android-systems**

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01
Introduction

Android is one of the most widely used mobile operating systems on the market. That is why knowing everything about this ecosystem for developing Apps until launching it to Play Store, is one of the requirements of the working environment of the modern developer. This program provides the professional with the most up-to-date knowledge on the operation of Android Studio, through a cutting-edge methodology 100% online, under the guidance of experts with more than 25 years of experience in the IT sector.

Learn how to develop a complete Android application, with this Postgraduate Certificate. Enroll now and qualify in 6 weeks"

The arrival of 5G and the rise of the Internet of Things are demanding more and more updates in mobile operating systems. Application development is one of the technology sectors where specific and up-to-date knowledge is required, adjusted to the reality of the environment. As Android is one of the most widely used systems in the world, developers must know the main trends and how it works.

Therefore, this Postgraduate Certificate addresses the development tools needed to create an Android application, taking into account fundamental aspects such as the installation of libraries, the factors to take into account to monetize it and how to upload each version to the Play Store, as well as how to use Git to manage them.

It will allow the graduate to develop an application in Kotlin, use Gradle to manage the libraries and know the basic requirements for choosing them. It will understand the use of Retrofit to connect the App with a RESTful API, taking into account the design of responsive views, the study of monetization systems and the location of the application in Play Store.

Thanks to an exclusive syllabus selected by IT engineers who are experts in the subject, and a 100% online study methodology. With innovative systems such as problem-based learning, Relearning and the variety of ways in which the content is presented make the process much more dynamic and practical, achieving the qualification in a maximum of 6 weeks.

This **Postgraduate Certificate in Application Development for Android Systems** contains the most complete and up-to-date program on the market. The most important features include:

- 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

Understand the key concepts about Android App Development architectures and patterns in a few weeks"

"The Relearning methodology allows you to memorize and understand concepts more quickly and easily. TECH Technological University makes it possible"

All the specialized knowledge about the operation of Android Studio, in this 100% online Postgraduate Certificate.

Get qualified in the most demanded topics in the IT environment. TECH Technological University offers you the most avant-garde programs.

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

As one of the most used operating systems for mobile application development, this program has been designed with the purpose of qualifying the computer scientist to master the Kotlin language and all the necessary development tools to create an Android application, shaping the professionals towards an adequate development to the needs and demands of today's market, with a future outlook.

> *Get ready for the expansion of your knowledge towards the most demanded system for mobile application development: Android"*

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

- Develop an application in Kotlin
- Use Gradle to manage libraries
- Using Retrofit to connect our application to a RESTful API
- Specify the basic requirements for the choice of a library
- Analyze a monetization system
- Design Responsive Views
- Publish an application on Play Store

Delve into programming architectures oriented to the development of applications on Android mobile devices"

03
Course Management

TECH has selected the best professional experts in Android programming, in the field of new technologies, solution architecture and digital infrastructure, to launch this update program that will benefit all those professionals working in IT environments. Teachers with more than 25 years of experience, who will accompany you throughout the learning process, through a variety of multimedia resources: meeting rooms, personalized chats, videos, forums and communities of experts, allowing easy access to content and communication.

Project Managers in important business groups have designed this program, with the most exclusive content that will raise your level of professionalization"

Management

D. 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. Noguera Rodríguez, Pablo

- Software engineer applied to Blockchain solutions at EY
- Mobile app developer at Bitnovo
- Developer of native iOS apps at Umani and Stef
- Freelance Programmer creator of Aviaze App, in collaboration with Starman Aviation

04
Structure and Content

To learn all about Android Application Development, TECH has designed an exclusive program with the most up-to-date and functional content for all those computer scientists who want to raise their level of professionalism. A syllabus described in depth, with multiple multimedia resources and practical theoretical material that will make the learning process much more dynamic and agile, suitable for a 100% online methodology based on Relearning, undoubtedly the most advanced system in today's university environment.
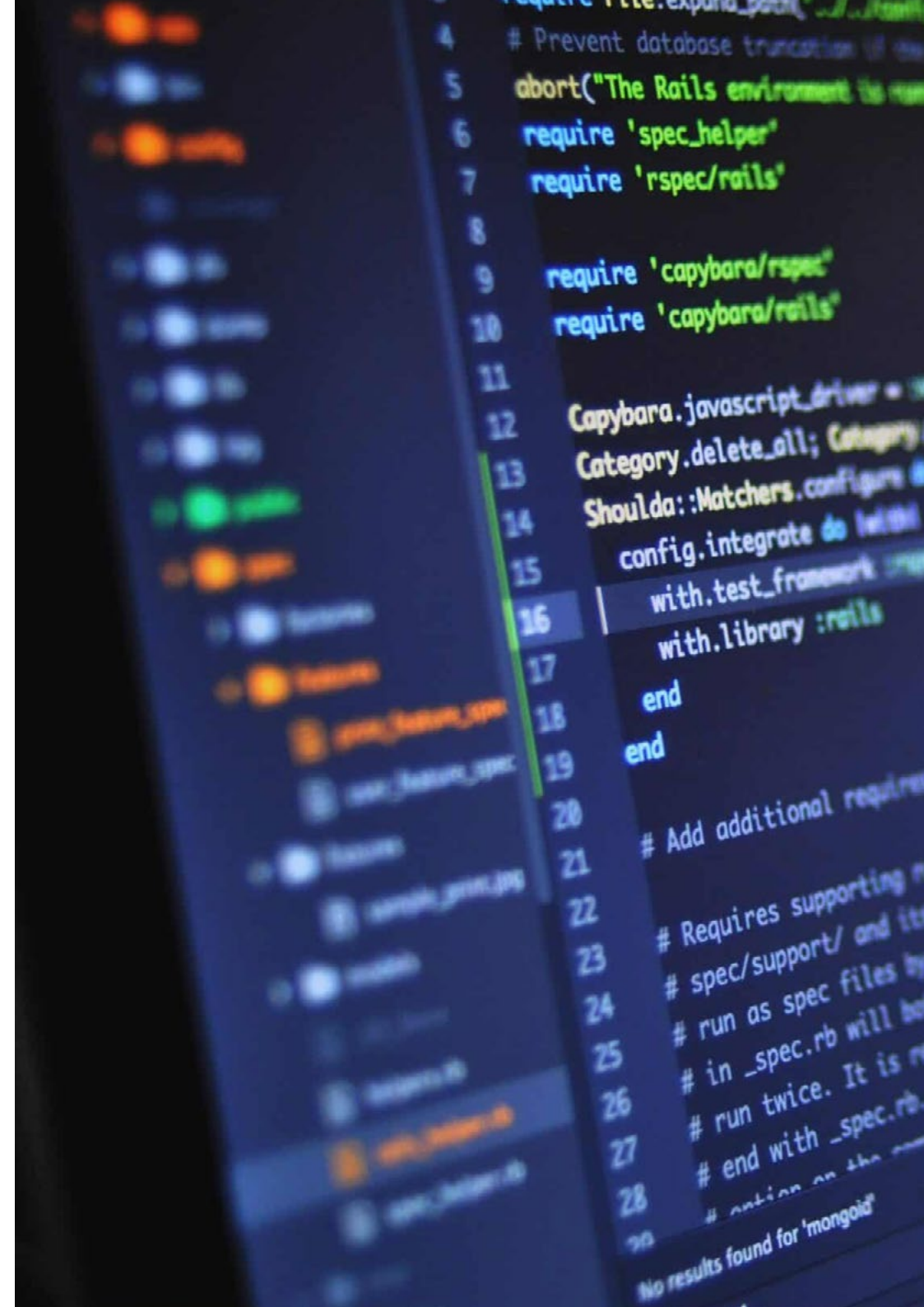
TECH offers you an exclusive updating program that will add value to your resume"

Module 1. Application Development for Android Systems

1.1. Android Studio
    1.1.1. Creation of a Project
    1.1.2. Configuration of an Emulator for Compiling
    1.1.3. Configuration of a Physical Phone for Compiling
1.2. Kotlin Programming Language
    1.2.1. Kotlin I: Kotlin Programming Language
    1.2.2. Kotlin II: Functions and Loops
    1.2.3. Kotlin III: Lambdas and Interfaces
1.3. Libraries and Gradle
    1.3.1. Graddle Programming Library
    1.3.2. Library Implementation
    1.3.3. Build Flavors
1.4. Android Mobile Device Oriented Development Libraries
    1.4.1. Retrofit
    1.4.2. Picasso
    1.4.3. Material Design Libraries
1.5. Screen Design
    1.5.1. XML: Android Design
    1.5.2. Responsive and Constraint Layout
    1.5.3. Styles and Defaults
    1.5.4. Strings Location
1.6. Activity, Fragment Life Cycles
    1.6.1. Activity
    1.6.2. Fragment
    1.6.3. Transactions, Fragment Manager
1.7. Services in the Foreground, Location and Sensors
    1.7.1. Access to Sensors
    1.7.2. Access to Foreground Localization
    1.7.3. Background Location Access
    1.7.4. Foreground Service for Accessing Location in the Background

Get a qualification in a specialized program and obtain the profile desired by the most demanding companies in the market"

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.
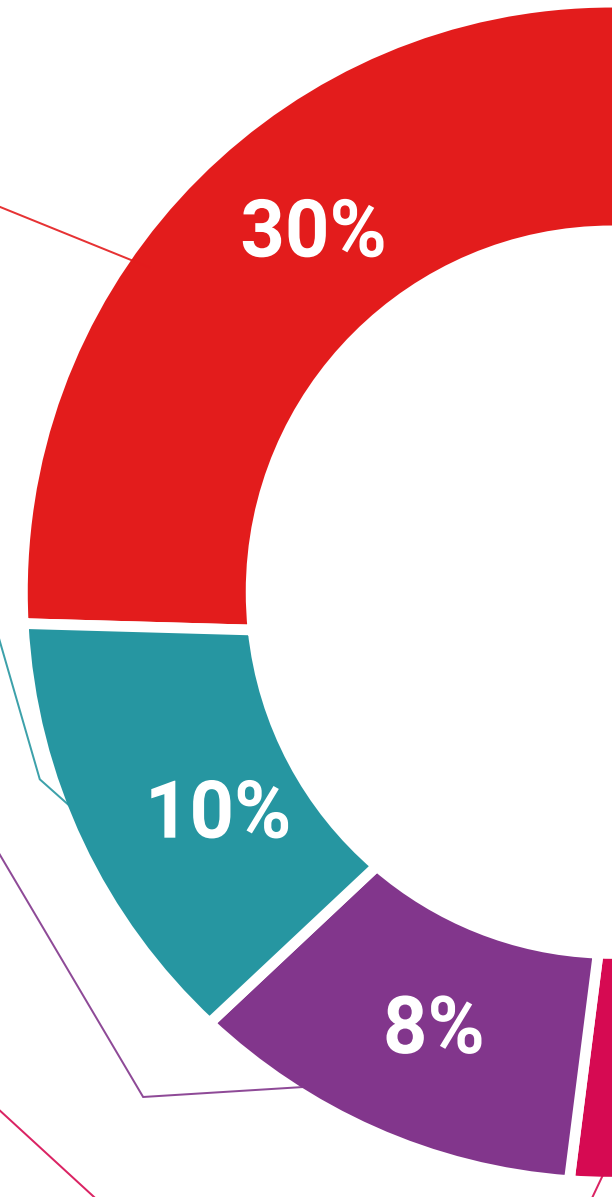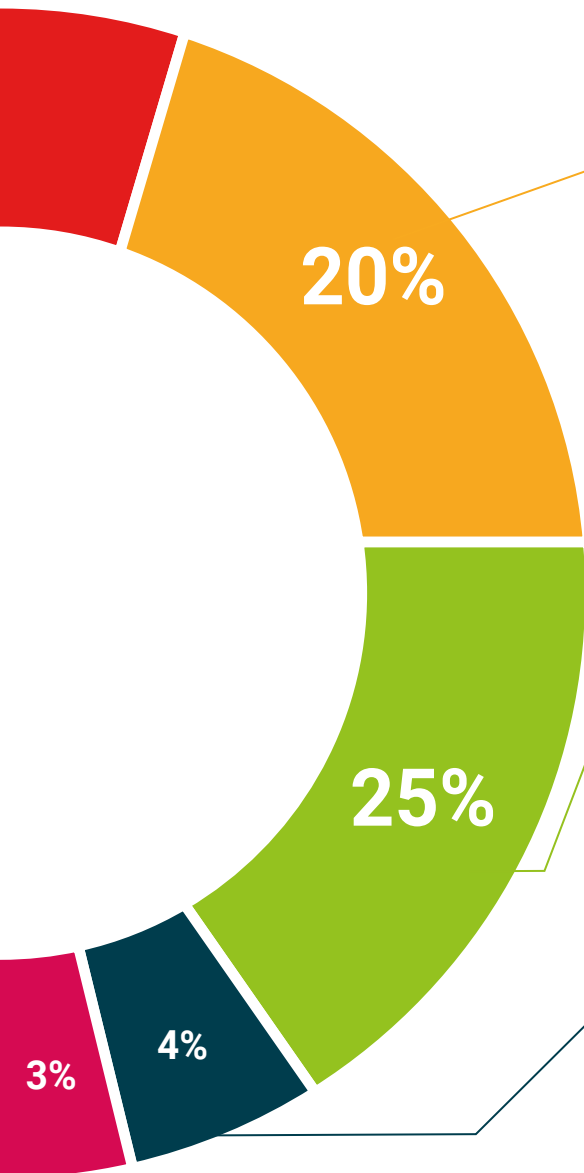
Practising Skills and Abilities

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%

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 Certificate in Application Development for Android Systems 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 Application Development for Android Systems** 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 Application Development for Android Systems**
Official Nº 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

Application Development for Android Systems

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

*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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