



SOFTWARE PROJECT LEADER

PROFESSIONAL CERTIFICATION



SPLPC™ Version 112023

CertiProf®

Software Project Leader

Syllabus V112023

Introduction	3
Objectives	3
Examination format and duration	3
Eligibility for certification	4
Content	5



Introduction

The Software Project Leader professional certification provides an understanding of key concepts and definitions to enhance your performance as a Software Project Leader. CertiProf® covers three key modules: essential soft skills of leadership, IT ecosystem concepts, and technical skills of software project leadership, which facilitate the incorporation into the technology industry for professionals interested in project leadership, which require an understanding of core concepts of the IT ecosystem.

A Project Leader with essential knowledge in technical aspects and the IT ecosystem, improving or enabling performance in the technology/software industry, with the ability to interact appropriately with the Development Team generating motivation, organization, and effective communication.

Objectives

- To motivate software industry professionals by fostering a comprehensive balance of competencies in three dimensions: ecosystem (software fundamentals), soft skills, and technical skills to elevate their leadership performance.
- To prepare participants to successfully pass the certification exam, ensuring that they are equipped with the knowledge and skills necessary to obtain the title of "Software Project Leader".

Examination format and duration

This study program has an exam in which the candidate must achieve a score to obtain the Software Project Leader certification.

- Type: Multiple choice; 40 questions.
- Duration: 60 minutes maximum, for all candidates in their respective language.
- Prerequisite: None.
- Supervised: At the Partner's discretion.
- Open book: No.
- Passing Score: 32/40 or 80%.
- Delivery: This exam is available online.

Eligibility for Certification

Anyone interested in the leadership of software projects, which require the understanding of core concepts of the IT/Software ecosystem and/or to expand their management skills and/or enhance their soft skills.

- It will allow the integral development of soft skills for leadership: Facilitate the growth of the participants in the fundamental soft skills to lead software projects successfully.
- It will allow the comprehensive development of technical skills for leadership: To train participants in the fundamental hard skills in the context of software projects (effectiveness, quality, and team).
- Enable the Adaptation of non-IT based professionals: Promote in professionals the understanding and application of fundamental and cutting-edge technical concepts for the software development industry, providing them with a solid foundation for their performance.
- Enable the growth of IT-based professionals: Promote professionals in the transition and/or strengthening of leadership roles by increasing their soft and technical skills for leadership, complementing their software competencies.
- Enable the mastery of cutting-edge knowledge: Update knowledge and trends in the software industry, in the use of technologies, roles, metrics and key skills for current challenges.

Content

Introduction

What is Leadership?
Excellence in Leadership
Excellence in Leadership Performance Model
Application of the Model to Software Project Leaders

Soft Skills

Value of Soft Skills
Soft Skills for Leadership in Software Projects
Communication
Organization
Motivation

Software Fundamentals

What is Web Development?
Importance and areas of Web Development
Web Development
Front-end
What is Front-end Development?
Technologies
What is a Web Framework?
Common Frameworks for Front-end Development
Roles for Front-end Development
Back-end
What is Back-end Development?
Most used technologies for Back-end Development
Roles for Back-end Development
Databases
What is a Database?
Types of Databases: Relational and Non-Relational
Technologies (Languages and Management Systems for Relational and Non-Relational Databases)
Roles for Databases
API - Application Programming Interface
What is an API?
Types of APIs
Technologies
Version Control Systems
What is a Version Control System?
Types of Version Control Systems
Version Control Systems - Git

Software Architecture

What is Software Architecture?

Essential Elements of Architecture

Architecture Patterns

Mobile Development

What is Mobile Development?

Types of Mobile Applications

Technical Skills

What is management?

Management Overview

Technical skills Associated with a Software Project Leader

Effectiveness

What is effectiveness?

Key Elements to Achieve Effectiveness: Achievement of Objectives, Resource Management, Risk and Stakeholder Management.

Metrics to Identify Improvements in Effectiveness: Time to Market, Lead Time, Cycle Time and Throughput / Performance

Key Guidelines for Achieving Effectiveness

Quality

What is quality?

Key Elements to Achieve Quality: Software Quality Attributes and Quality Testing. Metrics to Measure Quality: Acceptance Level of Functional Testing, Active Defects, Automated Testing and Code Coverage.

Key Guidelines for Achieving Quality

Teams

Key aspects of the Software Teams: Configuration of Base and Expanded Teams.

Team metrics: Team Morale Index, Commitment Reliability and Work In Progress (WIP).

Key Guidelines for Achieving Team Results.