



# **TÉCNICA DEL NORTE UNIVERSITY**

**FACULTY OF ENGINEERING IN APPLIED SCIENCES**

**CAREER OF ENGINEERING IN COMPUTATIONAL SYSTEMS**

**GRADE WORK PRIOR TO OBTAINING THE TITLE OF ENGINEERING IN  
COMPUTER SYSTEMS**

**THEME:**

**“SOFTWARE INTEGRATED INTO MANAGEMENT AND SUPPORT TO  
POPULAR INVESTMENT SOCIETIES (SPI BY ITS INITIALS IN SPANISH),  
APPLIED TO PROYECT PF 52-11 BY THE ORGANIZATION CEDERENA.**

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## **ABSTRACT**

This document describes in detail the development of Software Integrated into Management and support to Popular Investment Societies (SPI by its initials in Spanish), considering it as starting point the need to systematize SPI management, which in turn it will be applied by the organization CEDERENA.

Also, the document contains the description of the modules explained by the software with which the set goals will be achieved in terms of benefiting both CEDERENA and the SPI integrated population. Moreover, it defines the process that has been implemented for the development of this project.

The work begins with the description of the Popular Investment Societies (SPI), their organization, second-tier instances (Consortium SPI) that aim at improving the conditions of sustainability, consolidation, development and expansion of SPI. Finally, the document explains in detail the possible SPI that will be benefited once the software is implemented.

Following, the document focuses on the representation of the relation between the Rational Unified Process (RUP) and the Unified Modeling Language (UML), used to outline the processes involved in the SPI that is the actors, software stipulations and the requirements of people using the system. In like manner, such process tackles the specifications of non-functional requirements referred to system quality and availability for its normal operation once it is already in production.

Successively, through the requirements collected of initial criteria and the processes that are kept within the Popular Investment Societies, case diagrams are presented and the tests carried out in the system are also explained so as to progressively assess the most relevant use cases.

To conclude, once the system development is complete, the conclusions attained are described and recommendations are proposed with regard to the system with the purpose of ensuring improvement points or modules that could be added on a regular basis.