## Requeriments







## Introduction







# Types of paradigms

## Type of Data

## Variable types and special variables

#### Access modifiers

#### Access Modifiers Table

## Classes and Objects

#### **Function Block**

#### Function Block Access Modifiers

#### Function Block Declaration variables

#### Constructor and Destructor

#### Method

#### Method access modifiers

#### Method Declaration of variables

## Method return variable types

## Object Property

#### Inheritance Function Block

#### Inheritance Structure



#### Inheritance Interface



## THIS pointer

## SUPER pointer

#### Interface

### pointer and reference

## Keyword Abstract

#### Abstract FB vs Interface

#### Fluent Interface

#### Interface vs Inheritance

## Further operators

#### ExST - Extended Structured Text

#### 4 Pillars

#### Abstraction

## Encapsulation

#### Inheritance

## Polymorphism

#### SOLID

## SRP - Single Responsibility Principle

## OCP - Open/Closed Principle

## LSP - Liskov Substitution Principle

# ISP - Interface Segregation Principle

# DIP - Dependency Inversion Principle

#### UML

#### Class UML

#### Relations

#### StateChart UML

## Types of Design for PLC programming

## Design patterns

### Strategy Pattern

### The Abstract Factory Pattern

#### Libraries

#### Links OOP

## TDD - Test Drive Development

#### Units Test