

# 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

# The Visitor Design Pattern

## Libraries

Links OOP

# TDD - Test Drive Development

# Units Test