Functional Programming and Graph Theory

ECTS
4 crédits

Hourly volume
81h

Introducing

Objectives

This unit builds on two courses related to the development of complex software:

-Functional programming : Data collecting and network computing applications cannot be programmed efficiently with the common shared memory paradigm (centralized state that can accessed by all components from the application). Functional programming rely on the stateless paradigm derived from the notion of mathematical functions to avoid bottlenecks.

-Graph theory : Graphs are mathematical objects that are used to model many problems relying on complex data. Many dedicated data structures and algorithms have been design to represent and use them efficiently.

Necessary prerequisites

Computer system use
Imperative Programming

Location(s)

Toulouse

Practical info