PROGRES Programming and Networks

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Goals

- Know how to write simple programs related to computer networks
- Execute or Automate network-related tasks in a professional environment
- Understand underlying mechanisms, use high-level libraries

Topics

- **Low level network programming (2 weeks)**
- **High level network programming (4 weeks)**
  - Programming over HTTP
    - Open Data and Open APIs
  - Data analysis, Data Science
  - Experimental campaigns, scripting
- *Languages* : **Python** (JavaScript, Java)

Outline

- 3 modules of 2 weeks, followed by 3 weeks of personal work for mini-projects
  - *Week 1*
    - Main Lecture (2h) + TME (2h) Group 1 (A-H)
  - *Week 2*
    - Main Lecture (2h) + TME (2h) Group 2 (I-Z)
    - Mini-project

Classes

- 15 and 22 September 2023: Module 1
- 13 and 27 October 2023: Module 2
- 24 November and 1 December 2023: Module 3
- The other days are free for personal work (TME, Mini-projects)

Evaluation

- **3 TMEs**
  - Due one week after second group TME
  - Individual or in pair (change pairs for each TME)
- **2 out of 3 Mini-projects**
  - Due three weeks after second main lecture
  - In pairs, change pairs for each mini-project

Evaluation

- 10% TME 1, 10% TME 2, 10% TME 3
  - **TME** = **.zip** file with **source code** archive of what was done + **README** file explaining usage
- 35% Mini-project 1, 35% Mini-project 2
  - **Mini-project** = **.zip** file with: **report** (in Markdown or plain text format) explaining the source code, what was implemented, what was not, usage, etc. + **source code** archive

Web Site

http://www-npa.lip6.fr/~tixeuil/m2r/pmwiki.php?n=Main.PROGRES

- Main Lecture PROGRES slides
- TME/Mini-projects
- Useful links (submission site, forum)