

Software Security

Administration

Mohamed Sabt

Univ Rennes, CNRS, IRISA

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Organization

🕒 Every week, you get 3 hours:

- 1.5 hours of lectures,
- 1.5 hours of Labs,

🕒 Later:

- 12 hours of Project: Supervised by Pierrick and Khaled.

🕒 Site: <http://people.irisa.fr/Mohamed.Sabt/teaching.html>

Course Overview

Goals:

- Improve your knowledge of software and their security.
- Familiarize yourself with GCC documentation.
- Build a software project and manage its complexity.

Focus points:

- The C programming language.
- ELF Binaries.
- Compilers and Linkers.
- Dynamic/Static analysis of programs.
- Undefined Behaviors.
- Bugs Finding.

Planning

- 🎯 Week 1-2: C Programming Language: Standard & Caveats
- 🎯 Week 3-4: Binaries
- 🎯 Week 5-6: Linkers and (static & dynamic) Linking
- 🎯 Week 7: Binary Analysis
- 🎯 Week 8-9: Undefined Behaviors
- 🎯 Week 11: Bugs Finding with Automatic Tools (or Joker)

Evaluation

Quiz * 3:

- 10-minute quiz at the beginning of some lectures.

Lab Sessions

- Random Evaluation during the Lab.

Project:

- Technical realization, individualized questions, and report.

Exam:

- Final

Final note: 15%Quiz + 20%Lab + 25%Project + 40%Final