# Group information

Group: 15.  
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| Student ID | Name | Main roles |
| 21127170 | Nguyễn Thế Thiện | Planning, Authentication Server, Presentation designer |
| 21127679 | Ngô Quốc Quý | Project idea, Ticket Granting Server, Presentation designer |
| 19127628 | Nguyễn Mậu Việt | Report, Web Service |

# Project topic

This project is about User Authentication based on William Stallings et. al. (2017), *Cryptography and Network Security: Principles and Practice (7th Edition)*, Pt. 5 Ch. 15, Pearson Education, ISBN 978-0-13-444428-4.

We will learn about the applications of encryptions in user authentication, report what we apprehend and give an oral presentation which includes a video or live demo on how user authentication works.

# Project idea

## Introduction: Remote user authentication principles

* We will start with the basic terms and principles to understand what the problem is about and what is expected from a solution.

1. Remote user authentication (symmetric encryption).
2. Remote user authentication (asymmetric encryption).
3. Well-known applications and a brief of how systems work.
4. Demo on an application, a deep look into one of real-life user authentication models.

* In this demo, we will be making a basic web service with a well-known user authentication model: Kerberos applied into the login/signup feature and services.
* We will analyse Kerberos, explain how and why the model is implemented that way, then review the pros, cons and when the model should be used.
* Additional time (if we have) will be on Golden Ticket attack on Kerberos.

# Project schedule

* 21/01 – 04/02: read about user authentication and research on how it works, get an idea on how we shall do the project.
* 05/02 – 25/02 (note Tet holiday): research and test tools to use in the project, then partition the coding with expected input/output between phases for parallel programming.
* 26/02 – 17/02: coding.
* 18/02 – 24/02: presentation design and project finishing.
* 25/02 – 28/02: redundancy.