CS-E4350: Security Engineering, Spring 2021

Final project (Group work)

The project accounts for 40% of the grade. As such, you need to succeed with the project in order to pass the course. The total score of the final project consists of presentation 10 points, project 20 points, and report 10 points.

The final project consists of four parts (in a timeline order):

1. **Sign up your group on MyCourses:**

   Please remember to form a group of 4 (or 5 depending on the unevenness of the class) for your final project. You can team up with classmates freely but **make sure you have signed up your group on MyCourses.** (Go to *MyCourses -> General -> Security engineering final project* and choose a group number to join)

   Deadline: Please do this before **Friday March 12, 2021 at 13.00.**

   (Let us know if you did not manage to find group members by contacting our lead TAs: Amel Bourdoucen amel.bourdoucen@aalto.fi or Rongjun Ma rongjun.ma@aalto.fi. Please use the Project channel on the Teams group to find group members.)

2. **Submit your final project proposal as a group:**

   Please submit only one submission and one PDF only per group. This means only one person in the group needs to submit on MyCourses. Please make sure one submission is submitted.

   Please include in the PDF:

   > a. A title for the project
   > b.   Names, email addresses and student IDs or all group members.
   > c. One-page description of the idea. Please include details what dataset, if any, you are planning to use.

   The Heilmeier Catchecism is always very useful when thinking about a proposal: https://www.darpa.mil/work-with-us/heilmeier-catechism

   The deadline for submitting the proposal for the idea is **noon** on Wednesday **17.03.2021 on MyCourses**. There are no extensions to this or any other group project deadlines. You can still submit the proposal before this date to get a quicker decision and get started earlier.

3. **15-min final presentation:**

On **Tuesday (6.4) and Friday (9.4) of week 14** we will have the final project presentation. Everybody will be expected to attend the class to participate in everybody's presentations. The allocation times for the presentations will be distributed later. Prepare a 15-minute presentation of your project. This does not include questions; the total time will be 20 minutes or so for each group.

The deadline for submitting the presentation slides is **one day before your presentation.** For instance: if you will present on the 9th of April then you must submit your slides before midnight of the 8th of April.

Practice as a group that you stay within the limitation!

4. **Submit final project:**

Please submit your group project on MyCourses all zipped in one file and use the following naming convention for the project: "[Group number + name of the project leader]_Project.Zip".

This should include:

    a. Implementation: all the code that you have used
    b. Slides: the presentation in a pdf format.
    c. Report: Your final project report in pdf format

The deadline for submitting final report + source code + presentation slides **is 18:00 on Monday 19.4.2021.**

(The point of having to submit the report later is: 1) It gives you the chance to focus on the presentation and demos first, without having the fret about submitting the report at the same time. 2) You may receive some feedback with the presentations that you can incorporate them into the report.)

Details about the final project submission:

The instructions for submitting the final project are simple:

1) **The final project report**. This should not be less than 6 pages. A high-quality report uses an appropriate length to describe and discuss its contributions.
2) **Your presentations slide** of the final project.
3) **Any materials related to the final project** (e.g., source code if it was an implementation)

The deadline for the final project submission is **Friday 19.4.2021** at **18:00**. There are no extensions to this deadline and the 72-hour grace period does not count for the group

project.

Importantly, your project needs to be complete by the presentation time though **(Week 14, 6.4 and 9.4)**. *For example, if you are demonstrating an attack, it should work then during the presentation time.*

Alternatively, if you do not have your final project working by the presentation time, be upfront and honest about it, and we will take it into consideration if you make it work by the time when the report is due. However, do not take this approach if you are aiming for a top grade for the class. For unfinished projects by the presentation time, the maximum grade is towards the mid of the grade scale.

Please find a summary timeline below for when and what you will need to submit:

	Deadline
Group registration on MyCourses	12.03.2021
Project Proposal submission	17.03.2021
Presentation slides submission	Before one day of the presentation date
Final Project submission Zipped file includes: **Final Report + Source code + Presentation slides**	19.04.2021

Instructions for project topic:

Dataset   examples:

Here are some example datasets that you could use for your final project. Remember, you do not have to limit your work to these datasets.

http://www.caida.org/data/overview/

https://www.cvedetails.com

http://sysnet.ucsd.edu/projects/url/

https://github.com/defcom17/NSL_KDD

https://scans.io

https://archive.ics.uci.edu/ml/datasets/Phishing+Websites

https://www.kaggle.com/uciml/sms-spam-collection-dataset
https://archive.ics.uci.edu/ml/datasets/spambase
https://archive.ics.uci.edu/ml/datasets/YouTube+Spam+Collection