**16.03.2025**

**Term Project Task**

**CMSE-512 “Database and File Security” 25 points**

**Spring-2025**

1. The project concerns development of “Online Secure Hospital System” with Patient, Doctor, Chief Doctor, Curing Doctor, Receptionist, and Sysadmin actors. Access to the system is by user name and password. Sysadmin is responsible for introducing users to the system. Receptionist registers patients. Chief Doctor assigns Curing Doctor to patients. Patients’ records are available to respective Curing Doctor (all rights), Chief Doctor (read), and Patient (partial read, i.e. some parts may be not visible to the patient). Curing Doctor can assign special doctors to consult a patient giving rights for the patients’ records accessing. Patient can get appointment to a doctor. Patients’ records are kept DES-encrypted and digitally signed by RSA and some hash function.
2. The project is expected to be done by a team of at most four students. Notify me, please about your teams latest by March, 21, 2025. Later notification will be penalized by 2 points off per day
3. Implement solution using any appropriate tools
4. Conduct tests with your application to validate its correctness
5. Prepare (in Word) on your assignment having:

* outline,
* task formulation,
* database schema (E-R diagram), constraints on the DB content
* description of algorithm for solving your task,
* description of tools you used for implementation of your task and the way of their installation and preparation for usage
* description of developed program (parts of the program, ways of interaction, synchronization, etc.)
* user guide (how to use your program – what and where should be installed, launched, how it should be interpreted)
* description of conducted tests and their results with screenshots of the runs
* conclusion
* references on used sources (books, articles, web-sites, etc.)

1. All the Term Project-related materials (doc-file with your report, sources and executables of your application, database structure and content, results of your tests, and an instruction how to use your program) shall be archived and respective WinRAR file will be submitted via Teams.
2. Reports shall be uploaded in Teams **2.06.2025, Monday, 16.00. Later submission will be penalized (2 points/day).**
3. Presentation of your working application will be held on June 3 and 4, 2025. Presentation time will be specified on the report submission. The report will be assessed out of 10 points, and 15 points – for presentation of the working application and its explanation