Poznan University of Technology
Faculty of Computing and Telecommunications

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Course: Application Security – laboratories

Lecturer: Michał Apolinarski, Ph.D.

Topic: User registration and log-in process

Duration (on site): 360 min.

PREREQUISITES:

Knowledge of computer networks, operating systems, cryptography. Knowledge of programming languages and basic knowledge of database design and UML.

GOALS:

- The purpose of the exercise is to design and develop a user registration and login system in desktop, mobile or web application.
- Preparing a report (simple software documentations).

INSTRUCION (tasks for a group of max 2 persons) - part 1:

1. Prepare draft software documentation of the designed custom user registration module and log-in process for any (not existing yet) desktop, mobile or web app. General purpose of application is not important – it can be desktop healthcare / mobile game / e-commerce software that just need registration and log-in process to authenticate and access control for some restricted content and areas. Documentation should focus on the component (software feature) and includes:
    a. full details of the student, course and exercise,
    b. short description of the component (main goal),
    c. component requirements (functional and non-functional),
    d. component architecture, dependencies, tech stack, type of session management, API's description etc.
    e. database structure (how user data will be stored and processed),

    f.   UML flow diagrams for each process (including validation and alternatives paths),

2. Send the draft documentation to the lecturer for a review and remarks.

3. Present and discuss documentations with lecturer.

INSTRUCION (tasks for a group of max 2 persons) - part 2:

4. Prepare improved final software documentation and start development process.

5. Demonstrate the working functionality.

- **REPORT (simple software documentations):**
  - Should include a title page with full details of the student, course and exercise being reported.
  - Should be properly edited and includes elements described in instruction.
  - Complete document should be send to the lecturer.