Poznan University of Technology

Faculty of Computing and Telecommunications

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Course: Application Security – laboratories

Lecturer: Michał Apolinarski, Ph.D.

Topic: Open-source web application basic analysis

Duration (on site): 180 min.

PREREQUISITES:

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

GOALS:

- The aim of the class is to familiarize students with the basic functionality of selected (open source) web applications.
- Preparing a report of the performed tasks.

INSTRUCION (tasks for 1 person):

1. Visit site: **https://www.softaculous.com/demos** where you can browse popular open-source web applications.

2. Choose at least 5 (the more the better) different web application with working on-line demo mode and try them out.

3. For each of the chosen applications demos:

    a. Check available features on the public site.

    b. Sign in to the admin panel and familiarize yourself with the features available in dashboard.

4. Download at least 3 or more apps from its official site and install it on your localhost (in most cases you will need a web server like XAMPP with Apache, PHP and MySQL) – it's also recommended to install them on virtual machine.

5. For each locally installed application:

    a. Familiarize with its tech stack and analyze its files structure.

    b. Analyze its structure of the database, in particular how information about users and their passwords are stored.

    c. Configure basic functionality. Add some example content. Create some example users.

    d. Analyze process of users sign-in (log-in) and user's session management.

    e. Analyze password reset (forgotten password) functionality.

    f. Search the Internet for information about known vulnerabilities of this application.

6. Keep installed apps on your machine for future exercises.

7. Prepare and send to the lecturer a report of performed tasks and your analysis.

REPORT:

- Should include a title page with full details of the student, course and exercise being reported.

- Should be carefully edited and provide evidence of the completion of all exercises confirmed by screenshots, answers and conclusions.

- Complete report should be send to the lecturer.