

# Sri Lanka Institute of Information technology

## BSc (Hons) in Information Technology – 2024



### IE3022-Applied Information Assurance

#### Cyber Security - Year 3, Semester 2

#### Assignment 02

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Assignment Title	Penetration testing report based on the lab work performed for the module.
Assignment Mode	Individual
Setter	Kanishka Yapa
Date Set	15/09/2024
Deadline	10/10/2024
Assessment Category	Continuous Assessment
Maximum Marks	100 Marks
Contribution to the Final Grade	10%
Mode of Submission	Electronic submission of the Paper ( <a href="http://courseweb.sliit.lk">http://courseweb.sliit.lk</a> )

#### Scenario Description:

Imagine that you work for a company called “PentestRus” that provides VAPT (Vulnerability Assessment and Penetration Service) services. Pentest Partners has been hired to carry out an in-depth penetration test on a company named “Mayo Industries”. Your team has been assigned by PentestRus to carry out this task.

Divide your team into three teams - red team, blue team, and purple team. The following activities will be carried out by the respective teams:

Red team – This team will carry network and applications assessments both internally and externally.

Blue team - This team will analyze red team’s attacks and determine the readiness of the company to such attacks.

Purple team - This team will analyze the penetration testing process by analyzing the effectiveness of defensive tactics and controls proposed by the blue team to protect against vulnerabilities found by the red team.

- Mayo Industries did not specify any zones that are off-limits for the red team in the whole network.
- The company does not require a risk management report at this stage.

- The company requires a brief business impact assessment that outlines each found vulnerability and weakness.
- The company requires an assessment on the effectiveness of its present controls
- The company wants recommendations on what are the improvements needed to mitigate and remediate threats from found vulnerabilities.

## **Instructions**

1. You should start working on this assignment as soon as possible.
2. You should use the weekly labs given in class as a base for all your penetration testing tasks.
3. Make sure you explain any assumptions you have made for your chosen scenario.
4. A critical analysis and justifications for methods and choices will yield to higher mark.
5. Please use either Times New Roman, Arial or Courier new or Calibri 12pt for your assignment text.
6. Any appendix is not counted towards the word count. Appendixes contents will not be marked but will be used for reference to your work.