



T1 23 Assignment 1 Details and Submission Guidelines	
Unit Code	MN623 – T1 23
Unit Title	Cyber Security and Analytics
Assessment Type	Individual Assignment
Assessment Title	Implementation and evaluation of penetration testing tools
Purpose of the assessment (with ULO Mapping)	<p>This assignment assesses the following Unit Learning Outcomes; students should be able to demonstrate their achievements in them.</p> <ul style="list-style-type: none">Analyze cyber security vulnerabilities using ethical hacking methodologies.
Weight	10%
Total Marks	30 Marks
Word limit	750 to 1000 words
Due Date	Assignment 1- Week 3, 11:59 pm, 9/4/2023
Submission Guidelines	<ul style="list-style-type: none">Submit Assignment 1 in a word document in week 3.All work must be submitted on Moodle by the due dateThe assignment must be in MS Word format, 1.5 spacing, 11-pt Calibri (Body) font and 2 cm margins on all four sides of your page with appropriate section headings.Reference sources must be cited in the text of the report and listed appropriately at the end in a reference list using IEEE Transactions on Networking referencing style.Students must ensure before submission of final version of the assignment that the similarity percentage as computed by Turnitin must be less than 10% Assignments.
Extension	<p>If an extension of time to submit work is required, a Special Consideration Application must be submitted directly through AMS. You must submit this application within three working days of the assessment due date. Further information is available at: https://www.mit.edu.au/about-us/governance/institute-rules-policies-and-plans/policies-procedures-and-guidelines/assessment-policy</p>
Academic Misconduct	<p>Academic Misconduct is a serious offence. Depending on the seriousness of the case, penalties can vary from a written warning or zero marks to exclusion from the course or rescinding the degree. Students should make themselves familiar with the full policy and procedure available at http://www.mit.edu.au/about-mit/institute-publications/policies-procedures-and-guidelines/Plagiarism-Academic-Misconduct-Policy-Procedure. For further information, please refer to the Academic Integrity Section in your Unit Description.</p>

Purpose of Assignment

Assignment 1 is based on analyzing cyber security vulnerabilities using ethical hacking methodologies and evaluating security testing tools. The students will explore skills in Ethical Hacking/Penetration testing by describing how weakness in the system can be exploited to hack a target system using security testing tools.

Assignment Structure and submission guidelines

Assignment 1 is a formative assessment, and it focuses on the importance of penetration testing, industry leading tools used for penetration testing and a review of security testing tools. Students will be required to choose two security testing tools for further evaluation. The students will implement and demonstrate building a Software Test platform, the weaknesses in the system, how to exploit those weaknesses and hack the system using the 2 security testing tools you choose to demonstrate. Write and submit a report for Assignment 1.

Assignment Tasks

- 1) Describe the importance of ethical hacking? **(5 Marks)**
 - 2) There are several security testing tools available in the market. Present the industry leading tools used for penetration testing? **(5 Marks)**
 - 3) Demonstrate two cyber security tools during Week 3 Lab after reviewing a minimum of 3 security testing tools and presenting the snapshots in your Assignment 1 report.
(12 Marks for Demonstration + 5 Marks for report writing)
- Note:** The students will implement and demonstrate building a Software Test platform, the weaknesses in the system, how to exploit those weaknesses and hack the system using the 2 security testing tools you choose to demonstrate.
- 4) References **(3 Marks)**

Marking criteria:

Assignment Tasks	Marks
1) Describe the importance of ethical hacking?	5 Marks
2) There are several security testing tools available in the market. Present the industry leading tools used for penetration testing?	5 Marks
3) Demonstrate two cyber security tools during Week 3 Lab after reviewing a minimum of 3 security testing tools and presenting the snapshots in your Assignment 1 report.	12 Marks for Demo + 5 Marks for Report writing
4) Follow IEEE Transactions on Networking reference style (should have both in-text citation and reference list)	3 Marks
Total Marks	30 Marks

Marking Rubric

Grades	HD	D	Credit	P	N (fail)
Assignment-Report and Demonstration	All the points are pertinent and covered in detail and provide good summary of the literature and activity performed in the assessment.	Mostly points are pertinent and covered in detail and provide good summary of the literature and activity performed in the assessment.	Many points are pertinent and covered in detail and provide summary of the literature and activity performed in the assessment.	Few points are pertinent and covered in detail and provide outline of the literature and activity performed in the assessment.	Many points are not pertinent and not clear and summary is not provided for the activity.
IEEE Reference style	Clearly and completely followed IEEE style for citation (within) and references (at the end of) the document, number of citations is not accounted for.	Minor in-corrections but followed IEEE style for citation (within) and references (at the end of) the document, number of citation is not accounted for.	Some in-corrections but followed IEEE style for citation (within) and references (at the end of) the document, number of citation is not accounted for	Many in-corrections and not followed IEEE style for citation (within) and references (at the end of) the document, number of citation is not accounted for	No Referencing/ citation present at all