Faculty of Engineering, Environment and Computing

VT6005CEM Security

Assignment Brief

Module Title Security	Individual /~~Group~~: (ML delete as appropriate)	Cohort (~~Sept~~/Jan/~~May~~)	Module Code VT6005CEM
Coursework Title (e.g. CW1) CW2			Hand out date: 3 June 2024
Lecturer TSUI CHUN MAN, LEO			Due date and time: Moodle: 19 Sept 2024 18:00:00
Estimated Time (hrs): 20 Word Limit*: -	Coursework type: Practical Work		50% of Module Mark/ ~~Credit value assessed~~ (ML delete as appropriate)
Submission arrangement online via MoodleSP: File types and method of recording: zip Mark and Feedback date (DD/MM/YY): 2 Oct 2024 Mark and Feedback method (e.g. in lecture, written via Gradebook): Via Gradebook			

Module Learning Outcomes Assessed:

1. Critically evaluate a range of encryption and authentication methods for a given set of requirements.
2. Utilise systematic knowledge to create secure environments at the host or network level.
3. Develop and evaluate software that addresses the most common and most severe security concerns.

Notes:

1. Please notify your registry course support team and module leader for disability support.
2. Collusion between students (where sections of your work are similar to the work submitted by other students in this or previous module cohorts) is taken extremely seriously and will be reported to the academic conduct panel. This applies to both courseworks and exam answers.
3. You must not submit work for assessment that you have already submitted (partially or in full), either for your current course or for another qualification of this university, unless this is specifically provided for in your assignment brief or specific course or module information. Where earlier work by you is citable, ie. it has already been published/submitted, you must reference it clearly. Identical pieces of work submitted concurrently will also be considered to be self-plagiarism.

VTC6005CEM– Security

CW2 – Practical Work

1. Requirements

You are an external security for a mid-sized hedge fund in Hong Kong, named Hong Kong Alpha Investments. After the risk assessment of system security, IT manager would like to implement application security controls for stock trading system that proposed in coursework 1 report. He decided to assign this job to you.

You are required to implement a simple stock trading system and the security features stated in coursework 1 report.

Note:

- The interface is not a major element of it, the main elements being assessed are the security aspects
- You can use any web programming language to build your system and application security control (PHP is recommended)
- You need to submit demonstration video **in mp4 format**. The time limit of demonstration is 10 minutes. (You should upload it to any cloud storage and submit the link. Remember to share access right to lecturer)

2. Submission and Deadline

- ✓ Deadline of the source code and demonstration video link is **19/9/2024 18:00:00**.
- ✓ Zip all source code and video link, then submit to Moodle before deadline.
- ✓ The file name of zip file must be "**cw2.zip**", **otherwise marks will be deducted**.
- ✓ Late submission will NOT be accepted.
- ✓ Plagiarism will be **SERIOUSLY PUNISHED**. All the plagiarism assignment will **receive 0 marks**.

3. Marking Scheme

The poster will be marked in accordance with the following marking scheme:

Mark Range	Description
0-39 **Fail**	There are no assumptions stated and they may be of limited relevance to the task. They may be no detail or there may be significant errors. There will be a no understanding of the subject but there may also be significant technical inaccuracies or the material may be regurgitated with little critical interpretative thought. There may be no evidence of additional research. The presentation is not clear. There may be significant demonstration issues.
40-49 **Pass**	There are few assumptions stated and they may be of limited relevance to the task. They may be lacking in detail or there may be some errors. There will be a basic level of understanding of the subject but there may also be some technical inaccuracies or the material may be regurgitated with little critical interpretative thought. There may be little evidence of additional research. The presentation is reasonably clear. There may be demonstration issues.
50-59 **Moderate**	There are few assumptions stated and they may be of limited relevance to the task. There will be a moderate level of understanding of the subject but there may also be some technical inaccuracies or the material may be regurgitated with little critical interpretative thought. There may be moderate level evidence of research. The presentation is clear. There may be little demonstration issues.
60-69 **Good**	Assumptions are clearly stated and are relevant to the task. There is a high level of understanding of the subject. There are no technical errors. There is clear evidence of advanced critical thought and interpretation. Ideas are novel. The subject is contextualised within legal, ethical, business and international frameworks as appropriate. The presentation is clear and professional. The demonstration is conducted smoothly.
70-100 **Excellent**	Assumptions are very clearly stated and are relevant to the task. There is a industrial level of understanding of the subject. There are no technical errors. There is very clear evidence of advanced critical thought and interpretation. Ideas are novel. The subject is contextualised within legal, ethical, business and international frameworks as appropriate. The presentation is very clear and professional. The demonstration is conducted very smoothly.

4. Marking Criteria

	Marking criteria	Available marks	Marks awarded
1	**Technically competence.** Evidence of using secure coding techniques to build a secure web application	40	/40
2	**Security feature.** Evidence of implement security feature correctly in web application	40	/40
3	**Demonstration**. Illustrate the concrete work of security features	20	/20
	Total	100	/100