

End of Module Assignment

Due: Monday, 5 September 2022, 11:55 PM

EMA: OOP application of principles and concepts

This final assessment will show how you evaluate critically solutions developed to solve/mitigate these security issues. It accounts for 40% of your final module grade. The applicable word count of 600 words is for the README file only. Remember to save your work to your GitHub repository.

Assignment Brief

You are now required to implement a Python code of a solution to the issue described in [Unit 9](#). **This could be one of the solutions you recommended in your report submission in Unit 9 or one you did not consider in that submission.** The cyber security approaches you have chosen should be clearly highlighted. So your proposed solution could involve the implementation of Multi-factor Authentication and the use of encryption technologies to store user data. **You are not expected to implement solutions that involve the use of external devices, such as biometric devices.** Ensure you consider the feedback you have received on your Unit 9 submission and in your formative programming outline submission.

Submission Guidance

Your work can be carried out in the Codio Jupyter Notebook workspace, but **final submission should be placed here only.**

Submission checklist:

- You should submit a fully tested set of code with all required libraries. Code should be well documented with in-line commentary.
- You should supply evidence of execution, demonstrating how key aspects of your code work (via demos, screenshots and output captures).
- You should submit a README file that documents how the application runs.

File Submission:

- The source code and applicable documentation (including comments explaining the code). Good programming principles should be applied throughout the code.
- Output from testing tools and suites.
- A README file containing a description of the solution implemented, and instructions on how to execute the code.

Assignment Guidance

You will receive marks for unsuccessful answers **if** they build a logical argument. The deliverables for this assignment and the associated grading criteria (to be reviewed alongside the criteria grid in the Module Resources page) are:

1. Python code, covering
 - Code elegance – is the appropriate approach (techniques, algorithms etc) used? **and**
 - Meeting your chosen solution requirements (**Knowledge and Understanding weighted at 30%**)
 - Application of object-oriented programming features **and**
 - Test data used to test the code. (**Application of Knowledge and understanding weighted a 30%**)
2. **Structure and Presentation (weighted at 30%)** focuses on
 - comments on the code explaining it,
 - your README file containing a description of the solution implemented and instructions on how to execute the code (**600 words**), and
 - how well you have organised your code

Please note that academic integrity also applies to codes, where all sources can be placed in the README file and/or as part of the code commentary. (**Academic Integrity weighted at 10%**)

Learning Outcomes

- Evaluate critically the solutions developed to solve/mitigate security issues

Academic Integrity and Plagiarism

We take academic integrity very seriously. Academic integrity means acting with fairness and honesty, giving credit to others where you are referring to their ideas or research and respecting the work of others. Plagiarism is defined as: 'Using or copying the work of others (whether written, printed or in any other form) without proper acknowledgement'. Before you finalise your assignment, take time to check that all your statements, including lines of code, are backed up with supporting evidence, that all sources you use - whether referring to their ideas, quoting directly or paraphrasing - are correctly referenced in the text or in the code comments. Correct use of referencing acknowledges the academic/source whose work has informed yours, enables the reader to find the sources you have used and demonstrates your ability to find and analyse relevant information.

Failure to properly acknowledge the work of others is an academic offence and may result in your work incurring a penalty or, in the most serious cases, you being removed from the course for academic dishonesty.

If you are unsure about referencing or plagiarism there are useful resources available in the Study Skills Hub which is accessible from the menu on the left-hand side. If you are still experiencing difficulties with academic integrity then you can contact the Study Skills Team for individualised support studyskills-kol@kaplan.com