# Assignment Brief 1 (RQF)

## Higher National Certificate/Diploma in Computing

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| **Student Name/ID Number:** |  |
| **Unit Number and Title:** | **Unit 1: Programming** |
| **Academic Year:** | **2021 – 2022** |
| **Unit Assessor:** | **Vinh Hoang** |
| **Assignment Title:** | **Problem solving with algorithms** |
| **Issue Date:** | **01 April 2021** |
| **Submission Date:** |  |
| **Internal Verifier Name:** |  |
| **Date:** |  |

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| **Submission Format:** |
| *Format:*   * The submission is in the form of an individual written report. This should be written in a concise, formal business style using single spacing and font size 12. You are required to make use of headings, paragraphs and subsections as appropriate, and all work must be supported with research and referenced using the Harvard referencing system. Please also provide a bibliography using the Harvard referencing system.   *Submission*   * Students are compulsory to submit the assignment in due date and in a way requested by the Tutor. * The form of submission will be a soft copy posted on <http://cms.greenwich.edu.vn/>. * Remember to convert the word file into PDF file before the submission on CMS.   *Note:*   * The individual Assignment *must* be your own work, and not copied by or from another student. * If you use ideas, quotes or data (such as diagrams) from books, journals or other sources, you must reference your sources, using the Harvard style. * Make sure that you understand and follow the guidelines to avoid plagiarism. Failure to comply this requirement will result in a failed assignment. |
| **Unit Learning Outcomes:** |
| **LO1** Define basic algorithms to carry out an operation and outline the process of programming an application |
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| **Assignment Brief and Guidance:** |
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| **Assignment scenario**  You have applied for a post as a trainee with a software development company and have been invited for an interview. You have been asked to demonstrate your problem solving and basic programming skills. To do this you have to prepare a report on using algorithms to solve problems.  You need to explain, using examples, how algorithms are used to solve simple business problems and the steps needed to be followed to produce a working program solution. You should make clear your assumption about your program. The problems to be solved will involve basic procedural programming instructions - sequence instructions (input, output and assignment statements), loops, conditional statements. Problems should be analysed and designed by the use of flowchart and demonstrated by the use of modules (procedures).  **Tasks:**   * State your simple business problems to be solved. * Analyse the problem and design the solutions by the use of suitable methods. * Demonstrate the compilation and running of a program * Evaluate how the problem is solved from the designed algorithm to the execution program written by a specific programming language. |

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| **Learning Outcomes and Assessment Criteria (Assignment 1):** | | | |
| Learning Outcome | Pass | Merit | Distinction |
| LO1 | **P1** Provide a definition of what an algorithm is and outline the process in building an application. | **M1** Determine the steps taken from writing code to execution. | **D1** Examine the implementation of an algorithm in a suitable language. Evaluate the relationship between the written algorithm and the code variant. |