**ASSIGNMENT 2 BRIEF**

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| **Qualification** | **BTEC Level 5 HND Diploma in Computing** | | |
| **Unit number** | Unit 43: Internet of Things | | |
| **Assignment title** |  | | |
| **Academic Year** |  | | |
| **Unit Tutor** | Ho Hai Van | | |
| **Issue date** |  | **Submission date** |  |
| **IV name and date** |  | | |

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| **Submission Format:** |
| *Format:* This assignment is an Individual assignment and specifically including 1 document:  You must use font *Calibri size 12, set number of the pages and use multiple line spacing at 1.3. Margins must be: left: 1.25 cm; right: 1 cm; top: 1 cm and bottom: 1 cm.* The reference follows Harvard referencing system. The recommended word limit is *2.000-2.500 words*. You will not be penalized for exceeding the total word limit. The cover page of the report has to be the Assignment front sheet 2.  *Submission* Students are compulsory to submit the assignment in due date and in a way requested by the Tutors. The form of submission will be a soft copy posted on <http://cms.greenwich.edu.vn/>  *Note:* The Assignment *must* be your own work, and not copied by or from another student or from  books etc. 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 know how to reference properly, and that understand the guidelines on plagiarism. *If you do not, you definitely get fail* |
| **Unit Learning Outcomes:** |
| **LO1** Analyse what aspects of IoT are necessary and appropriate when designing software applications  **LO2** Outline a plan for an appropriate IoT application using common architecture, frameworks, tools, hardware and APIs  **LO3** Develop an IoT application using any combination of hardware, software, data, platforms and services.  **LO4** Evaluate your IoT application and detail the problem your IoT application solves, the potential impact on people, business, society and the end user and the problems it might encounter when integrating into the wider IoT ecosystem |
| **Assignment Brief and Guidance:** |
| You currently work as a product developer for a new startup where you design IoT products for the consumer, corporate, government and defence clients. As part of your role your manager has tasked you to plan and develop a new IoT product, service or application for a potential client. You are required to identify a target user and conduct tests with this user and include this feedback into multiple iterative versions of your product.  **Part 1 (Assignment 1)**:: For the first part, you must:   * Plan an IoT application for a specific target end user and the tests you intend to conduct with this user. This plan will be in the form of a document and will include supporting evidence and material, such as user personas and customer journey maps. * Create multiple iterations of your application and modify each iteration with enhancements gathered from user feedback and experimentation. This will follow the pathway outlined in your plan.(log book,)   **Part 2 (Assignment 2)**: For the second part, you must produce a report to prove that:   * Show evidence about Developed IoT application using any combination of hardware, software, data, platforms and services (video or images of your IoT system with code snippet) * Evaluate your IoT application and detail the problem your IoT application solves, the potential impact on people, business, society and the end user and the problems it might encounter when integrating into the wider IoT ecosystem |

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| Learning Outcomes and Assessment Criteria | | |
| Pass | Merit | Distinction |
| **LO3** Develop an IoT application using any combination of hardware, software, data, platforms and services. | | |
| **P5** Employ an appropriate set of tools to develop your plan into an IoT application.  **P6** Run end user experiments and examines feedback. | **M5** Reconcile and evaluate end user feedback and determine advantages and disadvantages of your chosen IoT techniques. |  |
| **LO4** Evaluate your IoT application and detail the problem your IoT application solves, the potential impact on people, business, society and the end user and the problems it might encounter when integrating into the wider IoT ecosystem | | |
| **P7** Evaluate end user feedback from your IoT application. | **M6** Undertake a critical review and compare your final application with the original plan. | **D3** Critique the overall success of your application. Did it solve your problem? What is the potential impact on people, business, society and the end user? What problems might it encounter when integrating into the wider IoT ecosystem? |

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**P5 Employ an appropriate set of tools to develop your plan into an IoT application**

**P6 Run end user experiments and examines feedback**

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**References**

**P5 Employ an appropriate set of tools to develop your plan into an IoT application**

**P6 Run end user experiments and examines feedback**

**P7 Evaluate end user feedback from your IoT application**

**References**

1. Unit 43 - Internet of Things 2019, *Session 1- Introduction to IoT*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
2. Unit 43 - Internet of Things 2019, *Session 2 - Design Framework for IoT system*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
3. Unit 43 - Internet of Things 2019, *Session 3 - Basic of IoT System*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
4. Unit 43 - Internet of Things 2019, *Session 4 - Sensors and Actuators - Introduction*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
5. Unit 43 - Internet of Things 2019, *Session 5 - Digital Sensors Practices*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
6. Unit 43 - Internet of Things 2019, *Session 6 - Analog Sensors Practices*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
7. Unit 43 - Internet of Things 2019, *Session 7- Communication Packet Tracer*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
8. Unit 43 - Internet of Things 2019, *Session 8 - Intermediate Devices - Microprocessors*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
9. Unit 43 - Internet of Things 2019, *Session 9 - Programming and Big Data*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
10. Unit 43 - Internet of Things 2019, *Session 10 - Design IOT System*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.
11. Unit 43 - Internet of Things 2019, *Session 11 - IoT Standards and Protocols*, University of Greenwich (Alliance with Vietnam FPT Education), United Kingdom.