**ASSIGNMENT 1 BRIEF**

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| **Qualification** | **BTEC Level 5 HND Diploma in Computing** | | |
| **Unit number** | Unit 04: Database Design & Development | | |
| **Assignment title** |  | | |
| **Academic Year** |  | | |
| **Unit Tutor** |  | | |
| **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 1.  *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.btec.edu.vn/](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 Use an appropriate design tool to design a relational database system for a substantial problem.**  **LO2 Develop** a fully functional relational database system, based on an existing system design.  **LO3 Test the system against user and system requirements.**  **LO4 Produce technical and user documentation** |
| **Assignment Brief and Guidance:** |
| You are employed as a Database Developer for a large IT consultancy company. The company has been approached by FPT university which is expanding due to the growth of the number of students. FPT is currently facing difficulties in dealing with managing the university. It decided to develop several academic systems to manage the university easier including: **Online Library system, Student Grading System, Attendance System, CMS System, Scheduling System, Enrolment Systems, and so on.**  You are tasked to select one of those systems to develop database for FPT university. Your tasks are to:  Work with FPT to find out about current requirements for each system  Analyze the requirements and produce clear statements of user and system requirements.  Design a relational database system using appropriate design tools and techniques  Develop a fully functional relational database system, based on an existing system design.  Test the system against user and system requirements.  Produce technical and user documentation  **Part 1 (Assignment 1)**  Before you start the development process, your manager has asked you to produce a report for the CEO of FPT, containing:  1. Clear statements of user and system requirements. The system must have at least 2 user roles, including business processes and statistical reports for FPT university managers.  2. The design of the relational database system using appropriate design tools and techniques. It should contain at least four interrelated tables.  *You would prefer to produce a more detailed document, so you will produce a comprehensive design for a fully functional system which will include interface and output designs, data validations and cover data normalization.*  *Your manager would like on the report your assessment of the effectiveness of the design in relation to user and system requirements.*  **Part 2 (Assignment 2)**  Once the designs have been accepted by your manager you have been asked to:  1. Develop the database system using evidence of user interface, output and data validations and querying across multiple tables.  *You want to include more than just the basics so you will implement a fully functional database system which will include system security and database maintenance features.*  2. You have decided to implement a query language into the relational database system. The developed system will be demonstrated to your manager in the report including:   * *Assessing whether meaningful data has been extracted through the use of query tools to produce appropriate management information.* * *Evaluating the effectiveness of the database solution in relation to user and system requirements, and suggest improvements.*   3. Once the system has been developed, you will test the system and your manager will complete a witness statement indicating how your tests are performing against user and system requirements.  *Besides, you will produce a brief report assessing the effectiveness of the testing, including an explanation of the choice of test data used.*  4. Lastly you will produce technical and user documentation which will be given to the company.  You want to provide some graphical representations for ease of reference in the technical guide, so you have decided to produce a technical and user documentation for a fully functional system, including diagrams showing movement of data through the system, and flowcharts describing how the system works. |

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| Learning Outcomes and Assessment Criteria | | |
| Pass | Merit | Distinction |
| **LO1** Use an appropriate design tool to design a relational database system for a substantial problem | | |
| **P1** Design a relational database system using appropriate design tools and techniques, containing at least **four** interrelated tables, with clear statements of user and system requirements. | **M1** Produce a comprehensive design for a fully functional system which includes interface and output designs, data validations and data normalisation. | **D1** Assess the effectiveness of the design in relation to user and system requirements. |