# Luminus Technical University College - Assignment Brief (RQF)

## Higher National Diploma in computing

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| **Student Name** | |  | | | **Language of assessment** | | | **AR** | **EN** |
| **College ID:** | | |  | |
| **Pearson ID:** | | |  | |
| **Unit Number and Title** | | **14** | **Business Intelligence** | | | | | | |
| **Academic Year** | | **2022/2023** | | | | | | | |
| **Unit Tutor** | |  | | | | | | | |
| **Internal Verifier Name and Approval (Signature)** | |  | | | | **Approval Date: 19/3/2023** | | | |
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| **Assignment number and Title** | | **1** | **BI for business improvement and decision support** | | | | | | |
| **Issue Date (1St Submission)** | | **19/3/2023** | | **Submission Date (1st Submission)** | | | **2/6/2023** | | |
| **Issue Date (2nd Submission)** | | **13/6/2023** | | **Completion Date (2nd Submission)** | | | **16/6/2023** | | |
| **Submission Format** | | | | | | | | | |
| 1. Microsoft Word document includes research and thoughts cover all related topics supported with requested diagrams, charts, photos and graphics to help to explain the topics.   This should be written in a concise, formal business style using single spacing and font size 14. You are required to make use of headings, paragraphs and subsections as appropriate.   1. Any material (images, drawings, diagrams, text) that is derived from other sources must be suitably referenced using a standard form of citation. 2. Microsoft PowerPoint presentation, including supporting photos to clarify your point and make your presentation more attractive. | | | | | | | | | |
| **Unit Learning Outcomes** | | | | | | | | | |
| **LO1** | Discuss business processes and the mechanisms used to support business decision-making | | | | | | | | |
| **LO2** | Compare the tools and technologies associated with business intelligence functionality | | | | | | | | |
| **LO3** | Demonstrate the use of business intelligence tools and technologies. | | | | | | | | |
| **LO4** | Discuss the impact of business intelligence tools and technologies for effective decision-making purposes and the legal/regulatory context in which they are used | | | | | | | | |
| Transferable skills and competencies developed | | | | | | | | | |
| Written Communication  Problem-solving  Analysis and critical reasoning  Online research  Evaluating a complex subject  Using Examples to clarify a subject  Use of MS Power BI Desktop   * Decision making | | | | | | | | | |
| **Vocational scenario:** | | | | | | | | | |
| The marketing manager for an international electronics company (IEC) in Germany suggested on the general manager to start improving the company’s business using social media for marketing. This requires website listing all item’s features and images, answering question from customers any time  The general manager was interested in his idea and requested some data analysis to clarify it.  You are working as a Senior Business Analyst in a software company that offers software solutions in the fields of business intelligence and business process management.  The marketing manager in IEC contacted you to help them in improving the company’s business processes and enhancing their decision-making capabilities.  He sent you a Request for Information (RFI) that includes several questions and requests; where you are required to answer the questions and provide additional information about business intelligence tools.  You noticed that since there is a lot of items offered by the company; the number of questions on social media is very huge and need quick response, so you need to suggest solutions to solve this concern. So you asked for more information about the importance and the targeted customers for each item  Here are some questions you must answer before preparing a data analytics report. | | | | | | | | | |
| Assignment activity and guidance | | | | | | | | | |
| Task1:  The marketing manager like to learn how business intelligence improve their business processes and enhance decision making.’   * You should prepare a Microsoft PowerPoint presentation including the following tasks:   1. Seek the meaning of Business Process for marketing, give an example for a common business using social media for marketing, and investigate how social media support business process.   2. Discriminate Structured or Unstructured/Semi-Structured data in the company’s website and what type of data IEC need to improve decision making in marketing.   3. Judge advantages and disadvantages for how information systems and social media affect business processes. | | | | | | | | | |
| Task2:  The marketing manager is interested in distinguishing the tools and technologies associated with business intelligence functionality.   * You should prepare Microsoft Word document including answers for the following questions:  1. Differentiate the types of decisions and the available support for them at different levels in the company. 2. Identify the decision of the senior manager in solving the huge number of questions on social media which need quick response, then support how business intelligence enhance his decision. 3. Distinguish and identify in detail the managerial levels in the company and types of decision-making and how information systems and technologies support these different levels. | | | | | | | | | |
| Task3:   * In your Microsoft Word document handle the following requests:  1. Negotiate how implementing Business Intelligent within business processes *in general* and within marketing sector *in specific* is very beneficial especially in decision-making. 2. Manage online search to show two succeeded trading companies that implemented business intelligence tools and how it improved their work. | | | | | | | | | |
| The company collects data about their customers, but they have concerns related to the legal aspects of using BI tools to utilise these data.   * In your Microsoft Word document take care of the following:  1. Research the legal issues in using BI tools to support the analysis of social media data. 2. In sake of expanding the customer’s base of the company; appraise how business intelligence tools can be employed to collect and analyse customers’ data within the boundaries of the General Data Protection Regulation in the European Union. | | | | | | | | | |
| Task4:   * Use the Power BI file (Assignment 2 Data and Model) to formulate a functional dashboard. The file already includes sample data and a model.  1. In Power BI Desktop, devise a dashboard comprised of the visualizations outlined in the following Functional Requirements:   **Part 1: Practical Requirements:**   * On **Product** table add **Column** name “**Profit**” which calculate the profit of selling each item (**Product Price – Product Cost**). * Add a **Card** that shows the **average** of all customers’ **Annual Income** on the **Customers** table. * Add **Multi-row Card** that shows the total number of products in each **Color** for the **Product** table. * Add **Matrix** that shows the **Average Profit** and the **Return Quantity** for each **Year**, the user should be able to drill down to **Month Name**. * Add a **Pie Chart** that shows the number of Male and Female **Customers**. * Add a **Line Chart** that shows the **Order Quantity** for each **Occupation** in the **Customer** table. * Add a **Map** that shows the **Order Line** **Item** for each **Country**. * Add a **Slicer** connected to the **Category Name** of the items.  1. Modify the design to address the following **Non-Functional requirements:**  * The Dashboard should be User-Friendly * The Dashboard should Prioritize Readability * The Dashboard should offer Interactivity for users * The Dashboard should Provide Context | | | | | | | | | |
| **Part2: Written Evaluation and BI Information**   * Assess in details how your dashboard meet **Non-Functional requirements:**   1. Name two modifications you did to make your Dashboard more user-friendly and has a functional interface and put screen shot as evidence.   2. Deliver critical assessment for the dashboard you designed to show how it meets business and user requirements and how BI effects on decision making like expanding sales area to increase profit. | | | | | | | | | |
| * Finally, we would like to provide the client with some information about business intelligence by offering the following details:   1. Appraise the concept of Business Intelligence and Power BI features, then identify with example two data analytic tools of it and how these tools can be useful in a business context. | | | | | | | | | |
| **Recommended Resources**  **Please note that the resources listed are examples for you to use as a starting point in your research – the list is not definitive.** | | | | | | | | | |

**Learning Outcomes and Assessment Criteria**

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| **Pass** | | **Merit** | **Distinction** |
| **LO1 Discuss business processes and the mechanisms used to support business decision-making** | | | D1 Evaluate the benefits and drawbacks of using application software as a mechanism for business processing |
| **P1** Examine, using examples, the terms ‘Business Process’ and ‘Supporting Processes’ | | **M1** Differentiate between unstructured and semi-structured data within an organisation |
| **LO2 Compare the tools and technologies associated with business intelligence functionality** | | | D2 Compare and contrast a range of information systems and technologies that can be used to support organisations at operational, tactical and strategic levels. |
| **P2** Compare the types of support available for business decision-making at varying levels within an organisation. | | **M2** Justify, with specific examples, the key features of business intelligence functionality |
| **LO3 Demonstrate the use of business intelligence tools and technologies** | | | D3 Provide a critical review of the design in terms of how it meets a specific user or business requirement and identify what customisation has been integrated into the design. |
| **P3** Determine, with examples, what business intelligence is and the tools and techniques associated with it    **P4** Design a business intelligence tool, application or interface that can perform a specific task to support problem-solving or decision-making at an advanced level. | **M3** Customise the design to ensure that it is user-friendly and has a functional interface | |
| **LO4 Discuss the impact of business intelligence tools and technologies for effective decision-making purposes and the legal/regulatory context in which they are used** | | | D4 Evaluate how organisations could use business intelligence to extend their target audience and make them more competitive within the market, taking security legislation into consideration |
| **P5** Discuss how business intelligence tools can contribute to effective decision-making.    **P6** Explore the legal issues involved in the secure exploitation of business intelligence tools. | | **M4** Conduct research to identify specific examples of organisations that have used business intelligence tools to enhance or improve operations |