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| **Qualification** | Pearson BTEC Level 5 Higher National Diploma in Computing (Software Engineering) | | | |
| **Unit No. and Title** | Unit 14: Business Intelligence | | | |
| **Assessor Name** | Stephen England | | **Issue Date** | 11th of April 2019 |
| **Internal Verifier** | Mina Katti | | **IV Date** | 29th of March 2019 |
| **Assignment Title** | Business Process Support Mechanism Design | | | |
| **Submission Deadline** | 14th June 2019 | | | |
| **Learning Aims/Outcomes** | | **Vocational Scenario (Context/Background)** | | |
| **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 | | [Image result for software development life cycle](https://www.google.co.uk/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=2ahUKEwiX-Jnm2sXhAhVRrxoKHa69A-AQjRx6BAgBEAU&url=https://www.smartsheet.com/software-development-project-management&psig=AOvVaw3YDtT51zkT6Ez29rz0FRpo&ust=1554991968972205)You are employed as a designer for a small software company (SDC) who produce bespoke payroll and audit trail applications for SME businesses throughout the West Midlands. Over the last 10 years your customer base has been shrinking and you have been losing many customers to other companies that can provide adaptable ‘off the shelf’ software from industry giants such as Microsoft, Sisense and SAP. | | |

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| **Case Study** |
| The analysis team have found out that many of their customers have moved to other Software providers because they offer business analytics software that provide the visualization of company data (such as reports and dashboards) on different platforms, including mobile devices. SDC wish to ‘get in’ on this emerging market, similar to how Looker have, by quickly adapting to customer needs.  Your role is to look at different systems offered (such as Looker and Microsoft BI) and design a Business Intelligence tool, application or interface as detailed in task 3. Notice use of the word ‘design’, you will not be required to ‘implement’ it. |

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| **Task 1 – Business Processes and Mechanisms** | |
| Business processes are pivotal to the operation, functionality and accomplishment of organisational goals. As a collection or set of tasks/activities, business processes ensure that the end goal of delivering a service or product to a customer is accomplished successfully.   1. Using specific examples (Studied in other units and through your own research), provide a written explanation of a business process and supporting process.(P1) 2. Data can be classified in terms of being structured, semi-structured or unstructured. Produce a comprehensive table that provides differentiation between these three types. (M1) 3. Application software can be used as a mechanism for business processing. Produce a presentation evaluating the benefits and drawbacks of using application software for this purpose. (D1) | |
| **Submission Format(s)** | Professional Report, table and Presentation |
| **Learning Aims/Outcomes:** | **L01:** P1, M1, D1 |

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| **Task 2 – Business Intelligence functionality** | |
| Complete the following documentation and publish it in your professionally formatted report;   1. Compare the types of support available for business decision-making at varying levels within an organisation(P2). 2. Justify, with specific examples (Studied in other units and through your own research), the key features of business intelligence functionality (M2). 3. Compare and contrast a range of information systems and technologies that can be used to support organisations at operational, tactical and strategic levels.(D2). | |
| **Submission Format(s)** | Professional Report |
| **Learning Aims/Outcomes:** | **L02:** P2, M2, D2 |

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| **Task 3 – Demonstrate the use of BI** | |
| Complete the following tasks and publish them in your professionally formatted report.   1. Determine, with examples (taken from your own research) what business intelligence is and the tools and techniques associated with it (P3). 2. 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 (P4). 3. Customise the design to ensure that it is user-friendly and has a functional interface (M3). 4. 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 (D3). | |
| **Submission Format(s)** | Professional Report and Supporting Evidence |
| **Learning Aims/Outcomes:** | **L03:** P3, P4, M3, D3  **L04:** P6 |

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| **Task 4 – The impact of BI for effective decision-making and their legal/regulatory context** | |
| Conclude your report by discussing the many implications of using BI   1. Discuss how business intelligence tools can contribute to effective decision-making (P5). 2. Explore the legal issues involved in the secure exploitation of business intelligence tools (P6); 3. Conduct research to identify specific examples of organisation that have used business intelligence tools to enhance or improve operations (M4).  * Evaluate how organisations could use BI to extend their target audience and make them more competitive within the market, taking security legislation into consideration (D4). | |
| **Submission Format(s)** | Professional Report |
| **Learning Aims/Outcomes:** | **L04:** P5, P6, M4, D4 |

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| **Sources of information to support you with this assignment** | | | |
| Unit 14:   * Textbooks   Boyer, J. (2010) *Business Intelligence Strategy*. MC Press (US).  Jeston, J. and Nelis, J. (2014) *Business Process Management*. 3rd Ed. Routledge.  Kolb, J. (2013) *Business Intelligence in Plain Language: A practical guide to Data Mining and Business Analytics*. CreateSpace Independent Publishing Platform.  Marr, B. (2015) Big Data: *Using Smart Big Data, Analytics and Metrics to Make Better Decisions and Improve Performance*. 1st Ed. John Wiley & Sons, Ltd. Websites   |  |  | | --- | --- | | businessintelligence.com | Business Intelligence (General Reference) | | business-intelligence.ac.uk | Business Intelligence Project for HE  (General Reference) | | | | |
| **Assessment Criteria** | | | |
| **Learning Aims/Outcomes** | **Pass** | **Merit** | **Distinction** |
| **LO1** Discuss business processes and the mechanisms used to support business decision-making | **P1** Examine, using examples, the terms ‘Business Process’ and  ‘Supporting Processes’ | **M1** Differentiate between unstructured and semi-structured data within an organisation. | **D1** Evaluate the benefits and drawbacks of using application software as a mechanism for business processing. |
| **LO2** Compare the tools and technologies associated with business intelligence functionality | **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. | **D2** Compare and contrast a range of information systems and technologies that can be used to support organisations at operational, tactical and strategic levels. |
| **LO3** Demonstrate the use of business intelligence tools and technologies | **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. | **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. |
| **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 | **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. | **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. |