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| BIG DATA AND VISUALIZATION |
| Student Name Surname |

**Unit 5: Big Data and Visualization**

**Lecturer:** Behzod Qurbonov

**Group ID:**

**Student ID:**

**Submission date:** \_\_. \_\_ .2025

**BTEC Learner Assessment Submission and Declaration**

When submitting evidence for assessment, each learner must sign a declaration confirming that the work is their own.

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| **Learner (Student) ID:** |  |
| **Assessor Name:** | Behzod Qurbonov |
| **BTEC Programme Title:** | Pearson BTEC Level 4 Higher Nationals in Digital Technologies |
| **Unit or Component Number and Title:** | UNIT 5: Big Data and Visualization |
| **Assignment Title:** | Internal Assignment |
| **Date Assignment Submitted:** | \_\_.\_\_.2025 |

Please list the evidence submitted for each task. Indicate the page numbers where the evidence can be found or describe the nature of the evidence (e.g. graph, illustration).

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| **Assignment task reference** | **Evidence submitted** | **Page** |
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| **Learner declaration**  I certify that the work submitted for this assignment is my own. I have clearly referenced any sources used in the work. I understand that false declaration is a form of malpractice.  **Learner signature: Date: \_\_**.\_\_.2025 |

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Introduction

**Write about what you will do and explain during the report.**

ActiviTY 1. Examine big data and visualization for decision-making

**A.P1** Explain the fundamental concepts of big data.

**A.P2** Investigate the value of data for decision making to both end users and organizations.

**A.M1** Analyze the advantages and challenges of data-driven decision making to an organization.

**A.D1** Evaluate the potential impact of data on both users and organizations when using data for decision making.

ActiviTY 2. Investigate statistical and graphical techniques, tools, and industry software solutions for big data and visualization

**B.P3** Describe statistical and graphical techniques for big data and visualization used in industry.

B.P4 Review different industry-leading tools and software solutions available for analyzing and visualizing data.

**B.M2** Compare how different industry-leading tools and software solutions are used to analyze and visualize data, with examples

B.D2 Evaluate own data preparation and manipulation, justifying your choice of statistical techniques, to show how this meets the needs of stakeholders for a given data set.

ActiviTY 3. Demonstrate the use of industry software to manipulate data and prepare visual presentations for a given data set

C.P5Select an industry-leading tool and software solution to manipulate data for a given data set.

C.P6 Demonstrate the use of queries to summarize and group data for a given data set.

C.M3 Prepare a visual presentation to summarize data for a given data set.

ActiviTY 4. Assess the role, responsibilities and challenges of data specialists.

C.P7Explain the different roles, responsibilities, and challenges faced by data specialists.

C.M4 Review the different strategies used by data specialists to ensure data compliance.

C.D3 Analyze the role, responsibilities, and challenges faced by data specialists when building ethics into a data-driven culture.

**DECISION-MAKING RECOMMENDATIONS**

**Conclusion**

**REFERENCE LIST**