

M.Sc. Data Analytics & Technologies

Assessment Specification

DAT7015

Big Data Technologies

Assessment-2

Course/ Program	M.Sc. Data Analytics and Technologies
Module Name	DAT7015 Big Data Technologies
Assessment Number	2 of 2
Assessment Weightage	75%
Assessment Name	Portfolio (5500 words)
Assessment Release Date	21 st November 2022
Assessment Submission Date	8 th January 2023

Learning Outcome/s Assessed:

LO2: Critically exemplify the skills required for effectively representing, structuring, analysing, manipulating and accessing large data sets.

LO3: Identify and critique significant current issues in the implementation and use of a range of Big Data Analytics Strategies.

LO4: Integrate various computing technologies to provide an effective solution for a set of data driven business requirements.

Assessment-2 Brief

This assignment is divided into two sections

Given a dataset/s, the students are required to analyse dataset. The students should clearly mention all the steps undertaken from importing data, cleaning, preparing data, and analysing data. The students should provide appropriate visualisation/s and report the results of analysis. All the steps/Python code/results must be shared.

(A) Data Analysis (75%)

- On given datasets, identify the questions that you would like to answer through data analysis.
- Given two datasets, use SQL queries to create a new dataset for analysis.
- Perform data cleaning and pre-processing tasks on the new dataset.
- Use HIVE, MapReduce (or Spark) and machine learning techniques to analyse data.
- Perform visualization using Python and PowerBI and report the results.

(B) Issues and Solution (25%)

- Identify the current issues in the use of Big Data Analytics in the fashion retail industry. Based on the identified issues, propose an effective solution using various technologies.

Your report should be produced in a professional **report style** and should contain at least **5500 words** excluding the references and appendices sections. This is an individual piece of work and is worth 75% of the module mark. The file name should be saved as DAT7015_2_Student-number. The student may be asked to present or reflect on the submitted report.

All the students have to give the presentation based on their assignment. It is mandatory for all the students to present. The students who do not appear for the presentation will be considered as FAIL.

Please note: the deadline for submitting your report is **8th January 2023**. Feedback dates are based on the University of Bolton's fifteen working day feedback policy. Some dates may have been adjusted to consider holiday periods.

Presentation Dates: 9th, 10th, 11th January 2023.

Minimum Secondary Research Source Requirements:

Level HE7 - It is expected that the Reference List will contain between **fifteen to twenty sources**. As a MINIMUM the Reference List should include **three refereed academic journals and five academic books**.

Specific Assessment Criteria:

(Please note that the General Assessment Criteria will also apply. Please see the end of the document).

Distinction (70% and above)

A cohesive, comprehensive solution will be submitted. Relationships between concepts will be expertly elicited. A justified and critical evaluation of the process you undertook will be well presented and explicit. Reflections will be succinct and insightful. Data analysis strategies will be expertly summarised, comprehensively justified and set out in a detailed project plan. Referencing (where appropriate) and English will be excellent.

Merit (60% -69%)

A clear and critical solution will be submitted. Relationships between concepts will be clearly stated. A clear and critical evaluation of the process you undertook will be well presented critical evaluation of decisions will be elicited. Reflections will be succinct and insightful. Data analysis strategies will be well summarised, justified and set out in a clear project plan. Referencing (where appropriate) and English will be good.

Pass (50%-59%)

A clearly defined solution will be submitted. Relationships between concepts will be stated. An evaluation of the process you undertook will be presented with mention of decisions taken. Some reflections will be present. Data analysis strategies will be well detailed in a project plan. Referencing (where appropriate) and English will be acceptable.

Fail (Below 50%)

Students who do not meet the requirements of the Pass criteria will not successfully complete the assessment activity.

16. General Assessment Criteria for Written Assessments

GENERAL ASSESSMENT GUIDELINES – LEVEL HE7

		Relevance Learning outcomes must be met for an overall pass	Knowledge and Understanding	Analysis, Creativity and Problem-Solving	Self-awareness and Reflection	Research/Referencing	Written English	Presentation and Structure
DISTINCTIVE	Exceptional Quality 85-100%	Work is directly relevant and expertly addresses the requirements of the brief. Learning outcomes are met.	Demonstrates an exceptional breadth and depth of knowledge and understanding of theory and practice which is beyond the threshold expectation for the level. Produces exceptional work which makes a contribution to knowledge in the subject area.	Presents an exceptional critique of advanced research material resulting in clear, original and illuminating conclusions. Expertly interprets complex matters and ideas and makes sound judgments in the absence of complete data. Demonstrates exceptional creative flair and a high level of originality. Develops distinctive, insightful and creative solutions to complex problems.	Provides insightful reflection and critical self-awareness in relation to the outcomes of own work and personal responsibility.	An extensive range of advanced research sources critically evaluated and selected. Sources cited accurately in both the body of text and in the Reference List/Bibliography.	Writing style is clear, succinct and relevant to the requirements of the assessment. An exceptionally well written answer with only rare errors in spelling, grammar and punctuation. Uses a wide range of less common and more advanced vocabulary and sentence types fluently and flexibly to convey precise meanings. Paragraphs are expertly structured with linking and signposting.	The presentation style and layout are correct for the type of assignment. Evidence of planning and logically structured. Where relevant, there is effective inclusion of, and reference to, figures, tables and images.

	<p>Excellent Quality</p> <p>70-84%</p>	<p>Work is relevant and comprehensively addresses the requirements of the brief.</p> <p>Learning outcomes are met.</p>	<p>Demonstrates an excellent breadth and depth of knowledge and understanding of theory and practice for this level.</p> <p>Clearly demonstrates originality in the application of knowledge.</p>	<p>Presents an excellent critique of advanced research material resulting in clear, original and illuminating conclusions.</p> <p>Comprehensively interprets complex matters and ideas and makes sound judgments in the absence of complete data.</p> <p>Demonstrates excellent creative flair and a high level of originality.</p> <p>Develops distinctive and creative solutions to complex problems.</p>	<p>Provides excellent reflection and critical self-awareness in relation to the outcomes of own work and personal responsibility</p>	<p>A wide range of advanced research sources critically evaluated and selected.</p> <p>Sources cited accurately in both the body of text and in the Reference List/ Bibliography.</p>	<p>Writing style is clear, succinct and relevant to the requirements of the assessment.</p> <p>A very well written answer with very few errors in spelling, grammar and punctuation. Uses a wide range of vocabulary and sentence types fluently and flexibly to convey precise meanings. Paragraphs are very well structured with linking and signposting.</p>	<p>The presentation style and layout are correct for the type of assignment.</p> <p>Evidence of planning and logically structured</p> <p>Where relevant, there is effective inclusion of, and reference to, figures, tables and images.</p>
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MERIT	<p>Good Quality</p> <p>60-69%</p>	<p>Work is relevant and addresses most of the requirements of the brief well.</p> <p>Learning outcomes are met.</p>	<p>Demonstrates a thorough breadth and depth of knowledge and understanding of theory and practice for this level.</p> <p>Demonstrates originality in the application of knowledge.</p>	<p>Presents a comprehensive critique of advanced research material resulting in clear and original conclusions.</p> <p>Systematically interprets complex matters and ideas and makes sound judgments in the absence of complete data.</p> <p>Demonstrates creative flair and originality.</p> <p>Develops creative solutions to complex problems.</p>	<p>Provides good reflection and critical self-awareness in relation to the outcomes of own work and personal responsibility, as required by the assessment.</p>	<p>A range of advanced research sources critically evaluated and selected.</p> <p>In the main, sources cited accurately in both the body of text and in the Reference List/ Bibliography.</p>	<p>Writing style is clear, succinct and relevant to the requirements of the assessment.</p> <p>A well written answer with some minor errors in spelling, grammar and punctuation. Uses a range of vocabulary and sentence types to convey precise meanings. Paragraphs are well structured with linking and signposting.</p>	<p>The presentation style and layout are correct for the type of assignment.</p> <p>Evidence of planning and logically structured in the main.</p> <p>Where relevant, there is effective inclusion of, and reference to, figures, tables and images.</p>
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PASS	Satisfactory Quality 50-59%	Work addresses the requirements of the brief, although superficially in places. Minor irrelevant content. Learning outcomes are met.	Demonstrates a sufficient breadth and depth of knowledge and understanding of theory and practice for this level. Demonstrates originality in the application of knowledge in places.	Presents some critique of advanced research material resulting in original conclusions. Shows the ability to systematically interpret complex matters and ideas and makes sound judgments in the absence of complete data. Demonstrates creative flair and originality. Develops some creative solutions to complex problems.	Provides justified reflection and critical self-awareness in relation to the outcomes of own work and personal responsibility, as required by the assessment.	Advanced research sources critically evaluated and selected. Some errors evident in relation to referencing the text and Reference List/Bibliography.	Writing style is readable and relevant to requirements of the assessment in the main. Competently written with minor lapses in spelling, grammar and punctuation. For example, paragraphs are structured and include some linking and signposting. Sentences are complete. A range of appropriate vocabulary is used.	The presentation style and layout are correct for the type of assignment. Logically structured in the most part. Inclusion of figures, tables and images but not all relevant or referred to.
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FAIL	Borderlin e Fail 45-49%	Work addresses some of the requirements of the brief. Irrelevant and superficial content. One or more learning outcomes have not been met.	Some omissions evident in knowledge and understanding of theory and practice for this level. Demonstrates limited originality in the application of knowledge.	A limited critique of research material presented, with simplistic conclusions drawn. Some complex matters and ideas interpreted but not systematically, resulting in flawed judgements. Limited creativity and originality evident. Demonstrates insufficient problem-solving skills and initiative.	Provides limited reflection and critical self-awareness in relation to the outcomes of own work and personal responsibility, when required.	Sources selected are limited and lack validity/relevance. Poor referencing technique employed.	Writing style is generally readable but lacks relevance to requirements of the assessment in places. Intermittent lapses in grammar, spelling and punctuation pose obstacles for the reader. For example, some paragraphs may lack structure and there is limited linking and signposting. Some appropriate vocabulary is used	For the type of assignment the presentational style, layout and/or structure are lacking. Inclusion of figures, tables and images but not clear, relevant and/or referred to.
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	<p>Fail</p> <p>0-44%</p>	<p>Work does not address the requirements of the brief. Irrelevant and superficial content.</p> <p>One or more learning outcomes have not been met.</p>	<p>Demonstrates inadequate knowledge and understanding of theory and practice for this level.</p> <p>A lack of originality in the application of knowledge is evident.</p>	<p>An absence of critique of research material evident with unjustified conclusions.</p> <p>Complex matters and ideas not interpreted correctly resulting in flawed judgements.</p> <p>Creativity and originality are absent.</p> <p>Insufficient problem-solving skills and initiative demonstrated.</p>	<p>Provides inadequate reflection and critical self-awareness in relation to the outcomes of own work and personal responsibility, when required.</p>	<p>Relevant and valid sources are not selected.</p> <p>Poor referencing technique employed.</p>	<p>Writing style is unclear and does not match the requirements of the assessment in question.</p> <p>Deficiencies in spelling, grammar and punctuation makes reading difficult and arguments unclear. Unstructured paragraphs</p>	<p>For the type of assignment the presentational style, layout and/or structure are lacking.</p> <p>Inclusion of figures, tables and images but not clear, relevant and/or referred to.</p>
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