

M.Sc. Data Analytics & Technologies

Assessment Specification DAT7015 Big Data Technologies

Assessment-2

Course/	M.Sc. Data Analytics and Technologies
Program	
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 Understandi ng	Analysis, Creativity and Problem- Solving	Self- awarenes s and Reflection	Research/ Referencing	Written English	Presentati on and Structure
ON	27.000	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 responsibili ty.	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 requireme nts of the assessment . An exceptional ly well written answer with only rare errors in spelling, grammar and punctuatio n. 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 presentatio nal 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.

E	Morkis	Domonstrata	Droconts se	Drovides	A wide research	\A/sitis =	The
Excellent	Work is	Demonstrates	Presents an	Provides	A wide range of	Writing	The
Quality	relevant and	an excellent	excellent	excellent	advanced	style is	presentatio
	comprehensiv	breadth and	critique of	reflection	research	clear,	nal style and
70-84%	ely addresses	depth of	advanced	and critical	sources	succinct	layout are
	the	knowledge	research	self-	critically	and	correct for
	requirements	and	material	awareness	evaluated and	relevant to	the type of
	of the brief.	understanding	resulting in	in relation	selected.	the	assignment.
		of theory and	clear, original	to the		requireme	
		practice for	and	outcomes		nts of the	Evidence of
	Learning	this level.	illuminating	of own	Sources cited	assessment	planning
	outcomes are		conclusions.	work and	accurately in		and logically
	met.			personal	both the body		structured
	met.	Clearly	Comprehensiv	responsibili	of text and in	A very well	Where
		demonstrates	ely interprets	ty	the Reference	written	relevant,
		originality in	complex		List/	answer	there is
		the	matters and		Bibliography.	with very	effective
		application of	ideas and		Dibliography.	few errors	inclusion of,
		knowledge.	makes sound			in spelling,	and
		kilowieuge.	judgments in			grammar	reference
			the absence of			and	to, figures,
			complete			punctuatio	tables and
			data.			n. Uses a	
			Demonstrates			wide range	images.
			excellent			of	
						vocabulary	
			creative flair			and	
			and a high			sentence	
			level of			types	
			originality.			fluently	
			Develops			and flexibly	
			distinctive and			to convey	
			creative			precise	
			solutions to			meanings.	
			complex			Paragraphs	
			problems.			are very	
			problems.			well	
						structured	
						with linking	
						and	
						signposting	

		Maria de Ca	D	D	Described	Α	144.:11.	TI
MERIT	Good	Work is	Demonstrates	Presents a	Provides	A range of	Writing	The
	Quality	relevant and	a thorough	comprehensiv	good	advanced	style is	presentatio
		addresses	breadth and	e critique of	reflection	research	clear,	nal style and
	60-69%	most of the	depth of	advanced	and critical	sources	succinct	layout are
		requirements	knowledge	research	self-	critically	and	correct for
		of the brief	and	material	awareness	evaluated and	relevant to	the type of
		well.	understanding	resulting in	in relation	selected.	the	assignment.
			of theory and	clear and	to the		requireme	Evidence of
			practice for	original	outcomes		nts of the	planning
		Learning	this level.	conclusions.	of own	In the main,	assessment	and logically
		outcomes are		Systematically	work and	sources cited	•	structured
		met.		interprets	personal	accurately in	A well	in the main.
			Demonstrates	complex	responsibili	both the body	written	iii tile iiialii.
			originality in	matters and	ty, as	of text and in	answer	Where
			the	ideas and	required by	the Reference	with some	relevant,
			application of	makes sound	the	List/	minor	there is
			knowledge.	judgments in	assessment	Bibliography.	errors in	effective
			J	the absence of	•	0 , ,	spelling,	inclusion of,
				complete			grammar	and
				data.			and	reference
				uata.			punctuatio	to, figures,
				Demonstrates			n. Uses a	tables and
				creative flair			range of	images.
				and originality.			vocabulary	
							and	
				Develops			sentence	
				creative			types to	
				solutions to			convey	
				complex			precise	
				problems.			meanings.	
							Paragraphs	
							are well	
							structured	
							with linking	
							and	
							signposting	

PASS	Satisfact	Work	Demonstrates	Presents some	Provides	Advanced	Writing	The
FASS		addresses the	a sufficient	critique of	justified	research	style is	presentatio
	ory	requirements	breadth and	advanced	reflection	sources	readable	nal style and
	Quality	of the brief,	depth of	research	and critical	critically	and	layout are
	50-59%	although	knowledge	material	self-	evaluated and	relevant to	correct for
	30-39%	superficially in	and	resulting in	awareness	selected.	requireme	the type of
		places. Minor	understanding	original	in relation	Sciected.	nts of the	assignment.
		irrelevant	of theory and	conclusions.	to the		assessment	ussigninent.
		content.	practice for	00110100101101	outcomes		in the	Logically
			this level.		of own	Some errors	main.	structured
					work and	evident in		in the most
				Shows the	personal	relation to	Competent	part.
		Learning		ability to	responsibili	referencing the	ly written	
		outcomes are	Demonstrates	systematically	ty, as	text and	with minor	Inclusion of
		met.	originality in	interpret	required by	Reference	lapses in	figures,
			the	complex	the	List/Bibliograph	spelling,	tables and
			application of	matters and ideas and	assessment	У	grammar	images but
			knowledge in				and	not all relevant or
			places.	makes sound			punctuatio	referred to.
				judgments in the absence of			n. For	referred to.
				complete			example,	
				data.			paragraphs	
				uata.			are	
							structured	
							and include	
				Demonstrates			some	
				creative flair			linking and	
				and originality.			signposting . Sentences	
							are	
							complete.	
				Develops			complete.	
				some creative			A range of	
				solutions to			appropriat	
				complex			e	
				problems.			vocabulary	
							is used.	

FAIL	Borderlin	Work	Some	A limited	Provides	Sources	Writing	For the type
	e Fail	addresses	omissions	critique of	limited	selected are	style is	of
		some of the	evident in	research	reflection	limited and lack	generally	assignment
	45-49%	requirements	knowledge	material	and critical	validity/relevan	readable	the
		of the brief.	and	presented,	self-	ce.	but lacks	presentatio
		Irrelevant and	understanding	with simplistic	awareness		relevance	nal style,
		superficial	of theory and	conclusions	in relation		to	layout
		content.	practice for	drawn.	to the	Poor	requireme	and/or
			this level.		outcomes	referencing	nts of the	structure
					of own	technique	assessment	are lacking.
		One or more		Some complex	work and	employed.	in places.	1
		learning	Demonstrates	matters and	personal	cp.oyeu.	Intermitten	Inclusion of
		outcomes	limited	ideas	responsibili		t lapses in	figures, tables and
		have not been	originality in	interpreted	ty, when		grammar,	images but
		met.	the	but not	required.		spelling	not clear,
			application of	systematically,			and	relevant
			knowledge.	resulting in			punctuatio	and/or
				flawed			n pose	referred to.
				judgements.			obstacles	
							for the	
							reader. For	
				Limited			example,	
				creativity and			some	
				originality			paragraphs	
				evident.			may lack	
							structure	
							and there	
				Demonstrates			is limited	
				insufficient			linking and	
				problem-			signposting	
				solving skills				
				and initiative.			Some	
				and initiative.			appropriat	
							е	
							vocabulary	
							is used	

	l	_					
Fail	Work does	Demonstrates	An absence of	Provides	Relevant and	Writing	For the type
	not address	inadequate	critique of	inadequate	valid sources	style is	of
0-44%	the	knowledge	research	reflection	are not	unclear	assignment
	requirements	and	material	and critical	selected.	and does	the
	of the brief.	understanding	evident with	self-		not match	presentatio
	Irrelevant and	of theory and	unjustified	awareness		the	nal style,
	superficial	practice for	conclusions.	in relation	Poor	requireme	layout
	content.	this level.		to the	referencing	nts of the	and/or
		A last, of		outcomes	technique	assessment	structure
		A lack of	Complex	of own	employed.	in	are lacking.
	One or more	originality in the	matters and	work and		question.	
	learning	application of	ideas not	personal		Deficiencie	
	outcomes	knowledge is	interpreted	responsibili		s in	Inclusion of
	have not been	evident.	correctly	ty, when		spelling,	figures,
	met.	evident.	resulting in	required.		grammar	tables and
			flawed			and	images but
			judgements.			punctuatio	not clear,
			,			n makes	relevant
							and/or
						reading difficult	referred to.
			Creativity and			and	
			originality are				
			absent.			arguments unclear.	
						Unstructur	
			Insufficient			ed	
			problem-			paragraphs	
			solving skills				
			and initiative				
			demonstrated.				
			demonstrated.				