MA5831 Advanced Data Processing and Analysis using SAS

Assignment 3 Content

Name: Data processing trends – Cloud based datawarehousing
Type: Literature review
Issued: 8:00 PM AEST Monday of Week 1
Due: 11:59 PM AEST Wednesday of Week 7
Weight: 40%
Length: 2000 words +/-10%

Submission method: PDF submission to LearnJCU

Overview

This assessment asks you to demonstrate your ability to conduct a literature review to evaluate a current data processing technology. The technology being investigated in relation to data processing is cloud based datawarehousing.

Learning outcomes

Related subject learning outcome:

- LO6: Conduct a written review of a current data processing technology to establish a critical baseline understanding of the academic research with regards to a new trend.

Specifically, this assessment evaluates your ability to:

- Examine a range of other resources other than published academic research such as practitioner literature, public commentary (e.g., blogs, wikis) and publications from privately funded organisations.

Work-based skills

This assessment relates to the following work-based skills:

1. The ability to evaluate and write a literature review is an important skill which is highly sort after in most organisations during strategy work and impact analysis.

2. This activity will train the data scientist to get a balanced and deep understanding of what has already been said or being proposed about a particular topic or issue.

Background

Literature reviews are used in academia to establish a critical baseline understanding of the academic research that has already been published on a particular topic that often has a particular focus for current research. A literature review explores both types of sources on a given topic in order to investigate, compare and evaluate available material on the topic.

Task

Your task in this assignment is to identify and evaluate the literature on a current trend or issue of strategic importance to decision makers.

Your trend or issue for this assignment is identifying **the key literature on:**

"The impact on analytics and data science of the trend towards cloud based datawarehousing"

Topics you might consider useful (but are not restricted to) include:

- The benefits and challenges of data processing and analysis with cloud based datawarehousing
- Research into different integration and shared data   that are under development for cloud based datawarehousing

- Data Sovereignty and Chain of Custody of data in cloud based datawarehusing n relation to analytics and data science

- Governance and Transaction cost economics of cloud based datawarehousing for data processing on analytics and data science

- Pitfalls and limitations of cloud based datawarehousing   in data processing on analytics and data science.

Note:

- You decide on the focus and scope of your investigation.

- The literature review is essentially an analysis of the literature on a particular subject. Check the marking criteria.

- Read the resources and case studies provided.

Include the following elements in your paper:

- A statement about the trend or issue and its significance for data science;

- A review of the literature that examines a range of research about the trend or issue, that is, considers multiple perspectives

- Based on your review of the data and literature, consider the impact this trend or issue might have on your future role as a data scientist.

Resources for this assignment

The following tasks will support you in completing this assessment:

- Read the O-Week topic *Preparing for Assessment 3 – Literature reviews* for background material on writing and structuring a literature review

- Watch the webinar [Literature Reviews: An Overview for Graduate Students](#) (9m38s) for an overview of data and literature reviews

- Explore an infographic on types of publications: Identifying scholarly articles

- Study the External analysis research framework for writing a Literature Review

- Read the JCU assignment guide [How to write a literature review](#) (PDF, 79 KB)

- Use the [JCU library](#) for literature search

- Use the JCU library [APA Referencing Guide](#)

- Explore independent research publications at [Academia](#)

- Explore independent research publications at [ResearchGate.](#)

Submission guidelines

If you use MS Word or any other program, save your work as a pdf for submission.

Your submission for Assessment 3 should be uploaded to LearnJCU as two (2) separate files:

1. The task cover sheet

2. Your work in saved in the following format A3_literaturereview_firstname_lastname (PDF format)

   - Length: 2000 words (+/-10%)

Upload both files in one go.

Marking criteria: MA5831 Assignment 3 – Literature review: Data processing trends – Cloud based datawarehousing

Criteria	High Distinction	Distinction	Credit	Pass	Fail
Criterion 1: Student identifies and relates an information trend or issue to the advanced data processing context.	Student demonstrates an excellent understanding of cloud based datawarehousing technology and the impact this trend is likely to have on analytics and data science.	Student demonstrates a strong understanding of cloud based datawarehousing technology and the impact this trend is likely to have on analytics and data science.	Student demonstrates a developing understanding of cloud based datawarehousing technology and the impact this trend will have on the analytics and data science.	Student demonstrates a basic understanding of cloud based datawarehousing technology and how this might relate to analytics and data science.	Student fails to demonstrate an understanding of cloud based datawarehousing technology and how this might relate to analytics and data science.
Criterion 2: Student investigates a range of ideas and issues from the literature.	Student demonstrates a strong professional position about the trend and includes a wide range of readings from the literature. The literature review demonstrates accomplished skills in comparing, contrasting and concluding strongly on issues identified. The review is logically structured, well written and highlights appropriate facets of the trend or issue being discussed.	Evidence of an emergent professional dialogue about the topic trend. Student goes beyond the readings and demonstrates a strong engagement with the literature. Evidence of being able to compare, contrast and conclude on issues identified in the literature and to present a balanced argument and discuss appropriate facets of the trend or issue.	Some descriptive narrative of the literature. Evidence the student has read outside the readings in the modules. Evidence of beginning analysis, critical discussion and engagement with multiple perspectives of the trend. Presents a balanced review.	Descriptive narrative of the literature mainly from the modules and readings for the subject. Some evidence of developing understandings about the trend or issue being examined. Review is not a balanced review and does not discuss or explore multiple perspectives.	Student does not demonstrate an engagement with the literature and fails to present a range of ideas and issues discussed in the literature.
Criterion 3: Student relates the investigation of the literature to the role of the data scientist.	Student demonstrates a strong professional position about a range of ideas, potential issues and perceptions regarding the role of the data scientist in this trend. Demonstrates a close examination of the literature and the role of the data scientist in this trend. Uses critical analysis and synthesis to present a balanced view that includes multiple aspects of the trend or issue being examined. Review logically structured and well written.	Evidence of a developing professional dialogue and discusses how the trend or issue examined may affect the role of the data scientist in this trend. Relates the information management issues examined in the literature to the advanced data processing context and the data scientist using critical analysis and engagement with the literature. Presents a balanced view that includes multiple aspects of the trend or issue being examined.	Evidence of a developing awareness of how the trend or issue examined may affect the role of the data scientist in this trend. Provides evidence of being able to relate the issues examined in the literature to the advanced data processing context and the data scientist. Evidence of developing analysis and engagement with the literature.	Descriptive narrative of how the trend or issue examined in the literature may affect the role of the data scientist in this trend. Evidence of a weak understanding of the role of the data scientist and the advanced data processing context, largely unsupported by references to the literature reviewed.	The student fails to relate the issues discussed in the literature review to the role of the data scientist in this trend.

Criterion 4: Student applies and integrates critical analysis	Demonstrates independent investigation, original questioning and critical analysis. Examines in detail and demonstrates understanding of multiple perspectives and through these can provide an insightful critical discussion. Author's voice strong.	Evidence of independent investigation, original questioning and critical analysis. Explores and demonstrates understanding of multiple perspectives and through these can provide an emergent critical discussion of multiple perspectives. Author's voice evident.	Some evidence of independent investigation, original questioning and analysis. Takes and understands multiple perspectives and through these can provide a narrative with developing analysis of multiple perspectives.	Descriptive narrative with little evidence of independent investigation, original questioning and analysis. Attempts to take and understand multiple perspectives.	No evidence of independent investigation, or original questioning. No attempt to take and understand multiple perspectives.
Criterion 5: Student demonstrates quality writing skills using appropriate conventions.	Demonstrates sophisticated critical analysis and synthesis skills. Argument flows logically and writing is free from grammatical and paragraphing errors. Strong author's voice, evidence from other sources integrated seamlessly to support arguments, with paraphrasing and direct quotes rarely used to demonstrate understandings. Referencing free from error and follows APA style conventions and standards.	Demonstrates competent analysis skills. Argument flows, is logically structured and written with clarity. Few grammatical errors, good use of paragraphs to structure the argument. Evidence of a developing author's voice, attempts to integrate evidence from other sources to support arguments, some paraphrasing and direct quotes used to demonstrate understandings. Referencing follows APA style conventions and standards.	Evidence of developing analysis. Argument demonstrates structure, correct paragraphing and the beginnings of logical flow. Some grammatical errors, poor sentence structure and paragraphing. Argument does not flow and evidence of paraphrasing from the literature. Author's voice not evident, referencing contains minor formatting errors.	Descriptive narrative with some grammatical errors, some poor sentence structure and paragraphing. Developing argument that shows some evidence of structure, but does not flow easily. Heavy reliance on paraphrasing and direct quotes from the literature. Referencing contains many formatting errors.	Descriptive narrative that includes many grammatical errors, poor sentence structures and paragraphing. Argument is poorly structured, does not flow easily and does not address the topic/task. Does not exhibit good writing skills.