



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

FACULTY OF COMPUTING
UTM Johor Bahru

Semester II 2024/2025

Subject : **SECP3133 PEMROSESAN DATA BERPRESTASI TINGGI (HIGH PERFORMANCE DATA PROCESSING)**

Weightage : 10% of total course assessment

Task : Academic Writing

Due : 18/4/2025 (Friday)

Submission : Upload PDF format via e-learning

File name : Student name.pdf

Assignment Type : Individual

Instructions

1. Choose One Topic from the list provided on the next page.
2. Create a Short Academic Paper that includes the following elements:
 - Title (Create your own, based on your selected topic)
 - Abstract
 - Keywords (3–5 keywords)
 - Introduction
 - Main Body (must include content and comparative analysis of previous technologies, systems, or platforms)
 - Conclusion
 - References (use APA style; minimum of 7 references)
3. Formatting Guidelines:
 - Maximum length: Three (3) pages only
 - Follow standard academic writing format
 - Use proper grammar, punctuation, and paragraphing
 - Include relevant graphics/tables, if applicable (with proper citation)
4. Citation and Plagiarism:
 - All references must be cited using APA style
 - Plagiarism is strictly prohibited. Any plagiarised work will receive ZERO (0) marks.
 - Include a Turnitin report with your submission
5. Log Book Requirement:
 - Maintain a log book to record your writing process. Include:
 - Dates of research and writing
 - Search engine keywords
 - AI prompts used (if applicable)
 - Your name and brief description of the task done
 - Submit the log book together with your paper

6. Use of Resources:

- You may include images, charts, or data from online resources
- All visuals must be properly credited in the citation or with source links

7. Academic Phrasing:

- Refer to this resource for academic phrase examples:

<https://www.phrasebank.manchester.ac.uk/>

Topic

No	Topics	Tools/ Technology
1	High- performance	Hadoop/ Cloudera
2	Distributed software	Apache Hadoop
3	Distributed software	Apache Spark
4	In-memory systems	SAP HANA
5	Cloud Computing	AWS
6	Cloud Computing	Google Cloud
7	In-database systems	SAS
8	Cluster Computing	The Virtual SMP Alternative (www.scalemp.com)
9	Cluster computing	Hadoop
10	Grid Computing	Hadoop
11	GPU Clusters	Nvidia
12	Big data analytics	Select any platform
13	Architecture data analytics	Select any platform and previous study
14	Real-Time Analytics Platforms	Apache Drill
15	Stream Analytics	Apache Spark
16	No-SQL	MongoDB
17	Storage Area Network	Google File System (GFS)
18	Data Models of NoSQL Databases	Cover all, such as document in MongoDB
19	Columnar databases	Apache HBase
20	Graph Databases	Neo4j
21	NewSQL	Clustrix

Rubric for Short Paper

Criteria	Excellent 10-7	Fair 6-4	Poor 3-0	WEIGHTAGE	MARKS
Structure: (Full mark: 5)	The paper consists ALL of the required components including titles, abstract, keywords, introduction, content (comparative analysis of existing tech and opinions), conclusion and references	The paper consists SOME of the required components	Most components are not included	5	____ X 5 10
Organization and Writing Style: (Full mark: 10)	The paper is well organized and has clarity of presentation	Moderate organization and presentation	Poorly organized and presentation with jumpy points	5	____ X 5 10
	The paper is easy to read, using the style of paragraph writing and the writing is clear concise	Moderate writing style	Difficult to read and the writing is confusing	5	____ X 5 10
Content: (Full mark: 35)	The paper adequately ties to the talk	The paper moderately ties to the talk	The paper does not ties at all to the talk	2	____ X 2 10
	The title adequately represents the content of the paper	The title moderately represents the content of the paper	The title does not represents the content of the paper	2	____ X 2 10
	The abstract accurately reflects the content of the paper	The abstract moderately reflects the content of the paper	The abstract does not reflects the content of the paper	2	____ X 2 10
	The purpose of the article is stated clearly	The purpose of the article is stated moderately	The purpose of the article is not clear	2	____ X 2 10
	The introduction adequately provides the necessary background information	The introduction moderately provides the necessary background information	The introduction poorly provides the necessary background information	2	____ X 2 10
	Comparative analysis of previous studies is constructed thoroughly by including all of the required comparative points	Comparative analysis of previous studies is constructed moderately by including some of the required comparative points	Comparative analysis of previous studies is constructed poorly by including very few of the required comparative points	10	____ X 10 10

	The content of selected previous studies was discussed thoroughly	The content of the selected previous studies was discussed moderately	The content of the selected previous studies was discussed in general (very shallow)	8	____ X 8 10
	All graphics (figures, tables, photos) are appropriate and adequate The conclusions are accurate and supported by the contents	Some of the graphics are appropriate and adequate The conclusions are acceptable	Very few of the graphics are appropriate The conclusions are not strong	4	____ X 4 10
	The references are relevant with the content	Some of the references are relevant with the content	None of the references are relevant with the content	3	____ X 3 10
Attractiveness: (Full mark: 5)	The paper is of interest to the reader	The paper is acceptable to the reader	The paper is boring	5	____ X 5 10
Log Book (Full mark: 10)	Complete record	The record is acceptable.	Not complete record.	10	____ X 10 10
Formatting: (Full mark: 10)	The paper is fully formatted according to IEEE paper template	The paper is partly formatted according to IEEE paper template	The paper is messy, does not formatted according to IEEE paper template	5	____ X 5 10
	The references are properly cited throughout text (follow IEEE citation guidelines)	Citations are presented with frequent inconsistencies or errors	No citations	3	____ X 3 10
	Length of paper = 4	Length of paper = 5 pages	Length of paper > 5 pages	2	____ X 2 10
Mechanics: (Full mark: 10)	The paper is free from grammatical or spelling errors	Some grammar or spelling errors but is acceptable	Very poor or too many grammar and spelling errors	10	____ X 10 10
Timeliness: (Full mark: 5)	Due on time	Due one day late	Due more than one day late	5	____ X 5 10
Presentation: (Full mark: 10)	<ul style="list-style-type: none"> • Holds attention of entire audience with the use of direct eye contact, seldom looking at notes • Speaks with fluctuation in volume and inflection to maintain audience interest and emphasize key points 	<ul style="list-style-type: none"> • Consistent use of direct eye contact with audience, but still returns to notes • Speaks with satisfactory variation of volume and inflection 	<ul style="list-style-type: none"> • Holds no eye contact with audience, as entire report is read from notes • Speaks in low volume and/ or monotonous tone, which causes audience to disengage 	10	____ X 10 10
Total					/100