

ECM3408 Enterprise Computing – GenAI Statement

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1 Generative AI Declaration

AI-supported use is permitted in this assessment. I acknowledge the following uses of GenAI tools in this assessment:

- I have used GenAI tools for developing ideas. [✕]
- I have used GenAI tools to assist with research or gathering information. [✕]
- I have used GenAI tools to help me understand key theories and concepts. [✕]
- I have used GenAI tools to identify trends and themes as part of my data analysis. [✕]
- I have used GenAI tools to suggest a plan or structure for my assessment. [✕]
- I have used GenAI tools to give me feedback on a draft. [✕]
- I have used GenAI tool to generate images, figures or diagrams. [✓]
- I have used GenAI tools to proofread and correct grammar or spelling errors. [✕]
- I have used GenAI tools to generate citations or references. [✕]
- Other: To generate basic LATEX markdown for endpoint diagrams [✓]

I declare that I have referenced use of GenAI outputs within my assessment in line with the University referencing guidelines.

2 Generative AI Log

2.1 LATEX Markdown Conversation

Me: *Attached Image**

*Image taken from Lab02 worksheet

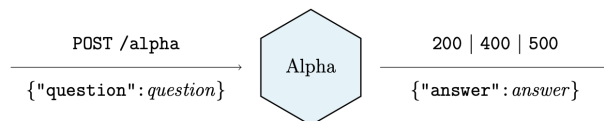


Figure 1: The Alpha microservice.

Me: How can I format this in latex markdown?

ChatGPT: You can format this in LaTeX using the ‘tikz’ package for drawing diagrams. Here’s an example code snippet to replicate the diagram:

```
\documentclass{article}
\usepackage{tikz}
\usepackage{amsmath}
\usepackage{graphicx}
```

```

\begin{document}

\begin{center}
\begin{tikzpicture}
% Draw hexagon
\node[draw, regular polygon, regular polygon sides=6, fill=blue!10,
minimum size=2cm] (alpha) {Alpha};

% Draw input arrow
\draw[->] (-3,0) -- (alpha.west) node[midway, above] {POST \texttt{/alpha}};
\node[left] at (-3,0) {\texttt{\{"question": \textit{question}\}}};

% Draw output arrow
\draw[->] (alpha.east) -- (3,0) node[midway, above] {200 \textbar\ 400 \textbar\ 500};
\node[right] at (3,0) {\texttt{\{"answer": \textit{answer}\}}};
\end{tikzpicture}
\end{center}

\begin{figure}[h]
\centering
\caption{The Alpha microservice.}
\end{figure}

\end{document}

```

This code uses ‘tikz’ to draw the diagram, placing the "Alpha" hexagon in the center, drawing arrows for requests and responses, and adding labels accordingly. Let me know if you need any modifications!

Me: It almost works but the text in curly braces is next to the line not underneath

ChatGPT: You can adjust the placement of the text inside the curly braces by using ‘node[below]’ to position it under the arrows. Here’s the refined version:

```

\documentclass{article}
\usepackage{tikz}
\usepackage{amsmath}
\usepackage{graphicx}

\begin{document}

\begin{center}
\begin{tikzpicture}
% Draw hexagon
\node[draw, regular polygon, regular polygon sides=6, fill=blue!10,
minimum size=2cm] (alpha) {Alpha};

% Draw input arrow
\draw[->] (-3,0) -- (alpha.west) node[midway, above] {POST \texttt{/alpha}}
node[midway, below] {\texttt{\{"question": \textit{question}\}}};

% Draw output arrow
\draw[->] (alpha.east) -- (3,0) node[midway, above] {200 \textbar\ 400 \textbar\ 500}
node[midway, below] {\texttt{\{"answer": \textit{answer}\}}};
\end{tikzpicture}
\end{center}

\end{document}

```

```

\begin{figure}[h]
  \centering
  \caption{The Alpha microservice.}
\end{figure}

\end{document}

```

Changes made:

- Used ‘node[midway, below]’ to place the request/response JSON under the arrows.
- Ensured spacing aligns correctly.

This should now correctly position the curly brace text below the lines! Let me know if you need more tweaks.

Me: *Attached Image*

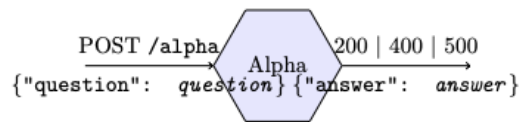


Figure 1: The Alpha microservice.

Me: Please help me improve the formatting

ChatGPT: Your current formatting is close, but the text is a bit cramped around the hexagon. Here are some improvements:

Issues to Fix:

1. *Spacing:* The text is too close to the hexagon. We can add some padding.
2. *Text Alignment:* The request (“question”: question) and response (“answer”: answer) should be better aligned under their respective arrows.
3. *Hexagon Styling:* A slightly larger hexagon with clearer borders will look better.

Improved LaTeX Code

```

\documentclass{article}
\usepackage{tikz}
\usepackage{amsmath}
\usepackage{graphicx}

\begin{document}

\begin{figure}[h]
  \centering

```

```

\begin{tikzpicture}
  % Hexagon Node
  \node[draw, regular polygon, regular polygon sides=6,
        fill=blue!10, minimum size=2.2cm] (alpha) {Alpha};

  % Input Arrow & Text
  \draw[->] (-4,0) -- (alpha.west) node[midway, above] {\textbf{POST} \texttt{/alpha}};
  \node[below] at (-4,0) {\texttt{\{"question": \textit{question}\}}};

  % Output Arrow & Text
  \draw[->] (alpha.east) -- (4,0) node[midway, above] {200 \textbar\ 400 \textbar\ 500};
  \node[below] at (4,0) {\texttt{\{"answer": \textit{answer}\}}};
\end{tikzpicture}
\caption{The Alpha microservice.}
\end{figure}

\end{document}

```

Key Improvements:

- *More Spacing*: Increased arrow length and moved labels further from the hexagon.
- *Better Alignment*: ‘ “question”: question ‘ and ‘ “answer”: answer ‘ are directly below the arrows.
- *Bolder Labels*: ‘POST /alpha‘ and status codes (‘200 | 400 | 500‘) are clearer.
- *Larger Hexagon*: Now it’s more visually balanced.

Try this out, and let me know if you need further tweaks!