HUMBER

Graduate Certificate in Artificial Intelligence with Machine Learning
AIGC 5504 – Emerging Technologies in Artificial Intelligence

Lab 1: Exploring Generative AI Applications

Submission guidelines:

- For this lab, you will need to submit 1 PDF file.
- Name the PDF as follows: firstname_lastname_LAB1.pdf
- Go to the course Blackboard → Labs folder → Lab Exercise 1 and submit the pdf.

Lab goals:

- Analyze real-world applications of Generative AI in various industries.
- Explore AI tools to simulate professional use cases.
- Reflect on the potential, limitations, and ethical implications of Generative AI.

Part 1: Research Real-life Applications

- Begin by exploring examples of Generative AI in industries such as:

    o **Healthcare:** AI-generated diagnostic images or drug discovery.

    o **Entertainment:** Movie effects, music creation, or game design.

    o **E-commerce:** Product descriptions or personalized marketing.

    o **Education:** Realistic simulations or interactive content.

Give one real-life use case example of how GenAI is currently being used in these fields.

Part 2: Group or individual Activity: Analyze Case Studies

You can submit individually or as a group.

On top of the report please indicate your name/group name clearly.

Your group can choose one of the following case studies or come up with a use case of their own:

Case 1: AI-generated images for marketing campaigns.

Case 2: Text generation for automated customer support.

Case 3: AI-assisted design in architecture or fashion.

Case 4: AI-generated music for video game soundtracks.

For the use case you chose, answer the following questions for your assigned case study:

What problem is Generative AI solving in this case?

How does Generative AI work in this context?

What are the benefits of using AI here?

What challenges or ethical considerations might arise?

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Enjoy!

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