

# Assignment Gamma

**Total marks 100**

**Deadline 28 Dec 2025**

**You can do it in a group of two people.**

## Question no 1

**Refer to the base Tutorial \_5a**

1. Interact with the LLM model and modify according to your use-case, such as medical, climate change or transport in the Karachi queries. Carefully note-down the responses from the LLM and write your analysis.
2. Compare the response from the different LLMs and plot the results.
3. Modify the notebook and add some-other LLMs that can be run in the colab environment and provide performance analysis on the use-case developed in the part 1.
4. Modify the prompt to be inputted into the LLMs and check the performance and write analysis.

## Question no 2

**Refer to the base Tutorial \_5b and Tutorial \_7\_V1**

1. Invoke different tools and write analysis of the tool calling by the model.
2. Design a case-study that implement LLM model with the tool callings for the a person who checks stock market, property market, gold price, and car market to buy or sell his assets. You can declare LLMs-powered agents to achieve the task.
3. Modify the use-case and make the entire use-case protected from online security threats. Use any technique that is viable for the solution.

### Question no 3

Refer to the base Tutorial\_8 and Tutorial\_9

1. Design a case-study that implement agentic AI framework for the a person who checks stock market, property market, gold price, and car market to buy or sell his assets. You can declare LLMs-powered agents to achieve the task. Integrate RAG in this use-case Langhcairn framework.
2. Design a case-study that implement agentic AI framework for the government, agencies, stakeholders to launch post-flood rehabilitation activities in certain area. You can declare LLMs-powered agents to achieve the task. Integrate RAG in this use-case and Langhcairn framework.
3. Design a case-study that implement agentic AI framework for the government, agencies, stakeholders to launch post-flood rehabilitation activities in certain area. You can declare LLMs-powered agents to achieve the task. Integrate RAG in this use-case and Langhcairn framework.
4. Design a case-study that implement agentic AI framework for the hospitals, doctors, and people for the dengue and malaria disease related issues. You can declare LLMs-powered agents to achieve the task. Integrate RAG in this use-case and Langhcairn framework.
5. Design a case-study that implement agentic AI framework for the food recipe and food quality checking. You can declare LLMs-powered agents to achieve the task. Integrate RAG in this use-case and Langhcairn framework.

#### Question no 4

Complete the following tables related to the **agentic AI** that have been published/ exist.

##### Best papers

Paper title	Year	Link of the paper	Journal / Conference	Agentic AI contributions

##### Companies / Start ups

Company name / start up	Year	Website link	Company profile	Agentic AI solutions

**Good luck**