

CodeCraft: Unleashing Langchain & LLMs

Assignment 1

Part 1: Short Answers: (Markdown cells of Jupyter Notebook)

1. Define LangChain in your own words.
2. What are the building blocks of NLP pipelines in LangChain?
3. What is the purpose of a prompt template in NLP?
4. Explain the role of agents in LangChain.

Part 2: Coding Section: (Code Cells of Jupyter Notebook)

Part 2a: Adventure Story Prompt Template

Question: Design a Python function that generates a random adventure story prompt using **two names provided as input**. The prompt should include:

The names of the two people.

A random location from a list (e.g., "a mysterious jungle", "a hidden island").

A random adventure from a list (e.g., "discovered a hidden treasure", "encountered a talking animal").

Part 2b: Simple Calculator Prompt Template

Question: Design a Python function that:

Takes three arguments: two numbers and an operation sign (+, -, *, or /).

Performs the specified calculation.

Returns a string presenting the calculation as a question and its answer, including error messages for invalid inputs (e.g., division by zero, invalid sign).

Submission:

1. Submit a single Jupyter notebook (**Naming format - <First Name SRN>.ipynb**) consisting of both parts of the section (Short Answers & Coding Section)
2. Submit a Zip Folder -take output screenshots with the question , **naming convention - question_subquestion.png**(example: part2_a.png) for each screenshot, zip this folder (**Naming format - <First Name_SRN>.zip**)
3. **Submission Deadline : 12th March, 2024 (23:59)**