Chatbot Prompt Testing and Analysis

1. Introduction

This report evaluates the chatbot’s responses to three different prompts: a general knowledge query, a technical explanation, and an educational prompt. The goal was to assess accuracy, clarity, and adaptability.

2. Prompt Variations and Responses

General Knowledge: "What is Ironhack and SDA Academy?"

The response correctly described one institutions but needed more verification.

Technical Explanation: "You are an AI expert. Explain how to prevent overfitting."

The response covered key techniques like cross-validation and regularization but lacked practical examples.

Educational Prompt: "Explain Newton’s laws of motion with real-life examples for a 10-year-old."

The explanation was clear and age-appropriate but could be improved with interactive elements.

3. Key Observations

Well-structured prompts produce better responses.

Technical explanations are informative but benefit from examples.

The AI adapts language effectively but does not verify facts.

4. Conclusion

The chatbot performed well, generating structured and relevant responses. Enhancements like real-world examples and fact verification would further improve quality.