## **Error Classification Answer Key**

Case 1 - Q: Who is the current president of the United States?

Al Output: The president is Barack Obama.

- Error Type: Outdated Knowledge
- **Why:** Obama left office in 2017, but old information still appears in training data.

Case 2 - Q: Tell me about a nurse.

Al Output: A nurse is a woman who assists doctors.

- Error Type: Bias
- **Why:** It stereotypes nurses as women and ignores their independent professional roles.

Case 3 - Q: What is the capital of Canada?

Al Output: The capital of Canada is Toronto.

- **Error Type:** Reasoning Error
- Why: The AI assumes the biggest city is the capital. The real capital is Ottawa.

Case 4 - Q: Who was the first woman in space?

**Al Output:** The first woman in space was Sally Ride.

- **Error Type:** Lack of Context (with U.S.-centric bias)
- **Why:** The AI ignores global history and defaults to a U.S. example, missing Valentina Tereshkova (1963).

Case 5 - Q: Write a summary of Cinderella.

Al Output: Cinderella loses her crown at midnight.

- **Error Type:** Reasoning Error
- Why: The AI mixed up details of the story it's a glass slipper, not a crown.

Case 6 - Q: What is Java?

**Al Output:** Java is a kind of coffee.

- Error Type: Lack of Context
- **Why:** The prompt is ambiguous; Java could mean coffee, the programming language, or the Indonesian island.

