

The diagram illustrates the interaction between the **User Interface** and the **Ascent Web**. A vertical dashed line separates the two components.

User Interface:

- Chat Window:** A container with a title bar and three message boxes.
 - Message 1:** "Natural language request" (green arrow pointing to step 2).
 - Message 2:** "Failure response" (two red arrows pointing to steps 3 and 4).
 - Message 7:** "Present update proposal" (green arrow pointing to step 8; a red arrow points to step 9).

Ascent Web:

- Step 2:** "Invoke Lambda function with UI context" (green arrow pointing to step 3).
- Step 3:** "Check if the request is a new proposal" (green arrow pointing to step 4).
- Step 4:** "Check if the request is a new proposal" (green arrow pointing to step 5).
- Step 5:** "Check if the request is a new proposal" (green arrow pointing to step 6).
- Step 6:** "Check if the request is a new proposal" (green arrow pointing to step 7).
- Step 7:** "Check if the request is a new proposal" (green arrow pointing to step 8).
- Step 8:** "Update the assay" (green arrow pointing to step 9).
- Step 9:** "Record the rejection" (green arrow pointing to step 10).

Flow Summary:

- The user sends a "Natural language request" (1) to the Ascent Web.
- The Ascent Web invokes a Lambda function (2) and checks if it's a new proposal (3-7).
- If it's a new proposal, the Ascent Web updates the assay (8).
- If it's not a new proposal, the Ascent Web records the rejection (9).
- The Ascent Web sends a "Failure response" (3, 4) back to the Chat Window.
- The Chat Window presents the update proposal (7) to the Ascent Web.
- The Ascent Web records the rejection (9) and updates the assay (8).

The diagram illustrates a Lambda workflow for processing assay JSON data. The workflow consists of four numbered steps within a Lambda function container:

- 3 Parse rule context and redirect to tool**: Receives input from the left (green arrow) and outputs to step 4 (green arrow). A red arrow indicates a feedback loop from step 3 to step 5.
- 4 Fix spelling mistakes and map display names to internal**: Receives input from step 3 (green arrow) and outputs to step 5 (green arrow). It also receives input from the **Ruleset Schema** S3 bucket (black arrow) and outputs to **Amazon Bedrock** (black arrow).
- 5 Validate the prompt**: Receives input from step 4 (green arrow) and outputs to step 6 (green arrow). It also receives input from **Amazon Bedrock** (black arrow).
- 6 Construct updates**: Receives input from step 5 (green arrow) and outputs to the **Assay JSON** S3 bucket (black arrow). It also receives input from **Amazon Bedrock** (black arrow).

External components and data flow:

- S3 Ruleset Schema**: Provides input to step 4.
- Amazon Bedrock**: Receives input from step 4 and provides output to steps 5 and 6.
- Assay JSON**: Receives output from step 6.