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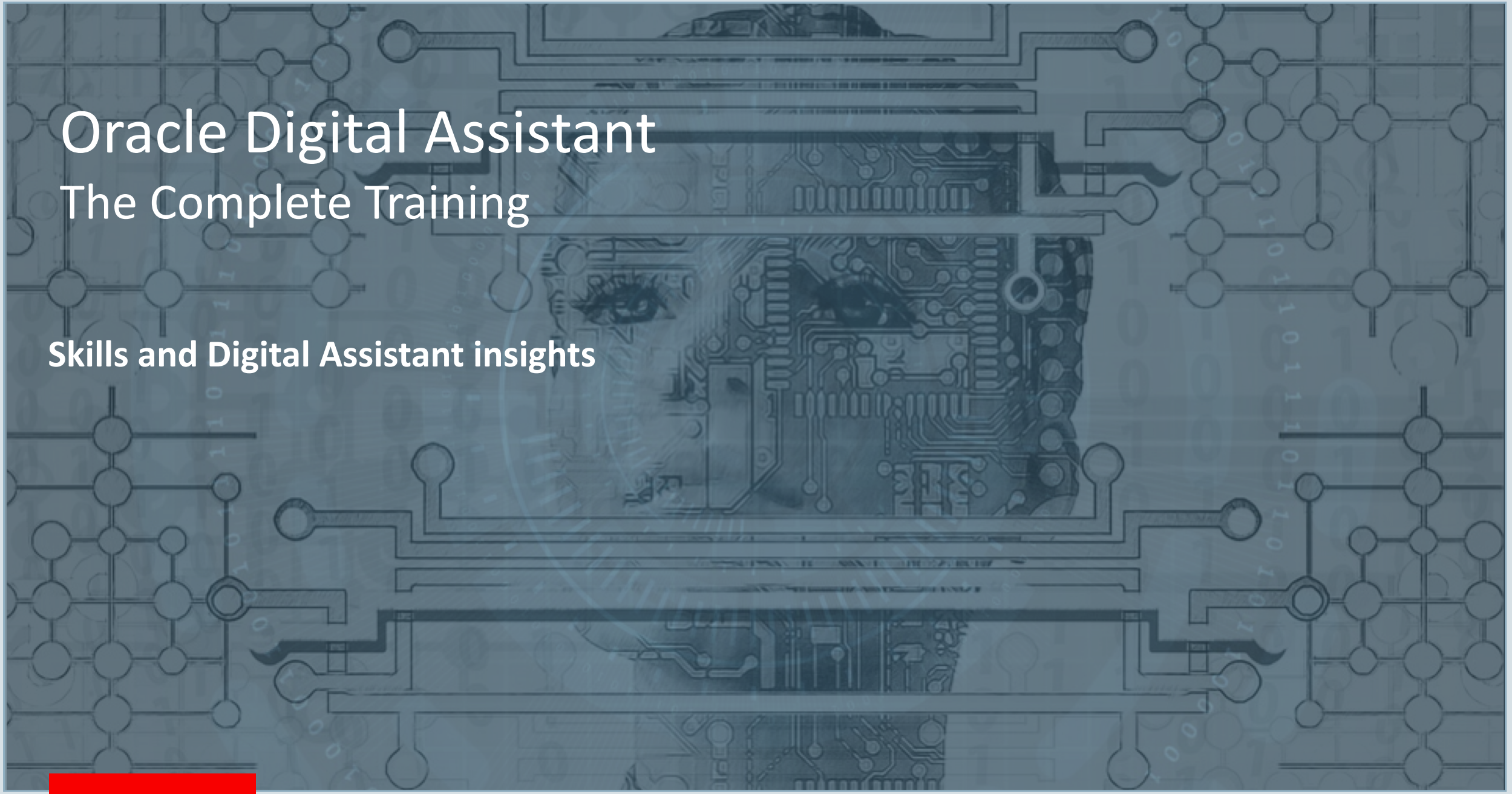
Oracle Digital Assistant

The Complete Training

Skills and Digital Assistant insights



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Topic agenda

1. Overview
2. High level analysis
3. Complete & incomplete paths
4. Drill down to conversations
5. Find root cause of failures
6. Insights Data Management & Export API

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Overview

- What are the problems and how do I fix them?
  - Is my skill performing well?
  - In which cases can't the skill continue?
  - How do I find root cause of why my skill fails?
- Developer oriented analytics
  - Track conversation trends, intent resolution accuracy
  - Identify most/least popular execution paths
  - Conversation debugger with transcripts
- Moderated self learning
  - Augment intent resolution using insights data

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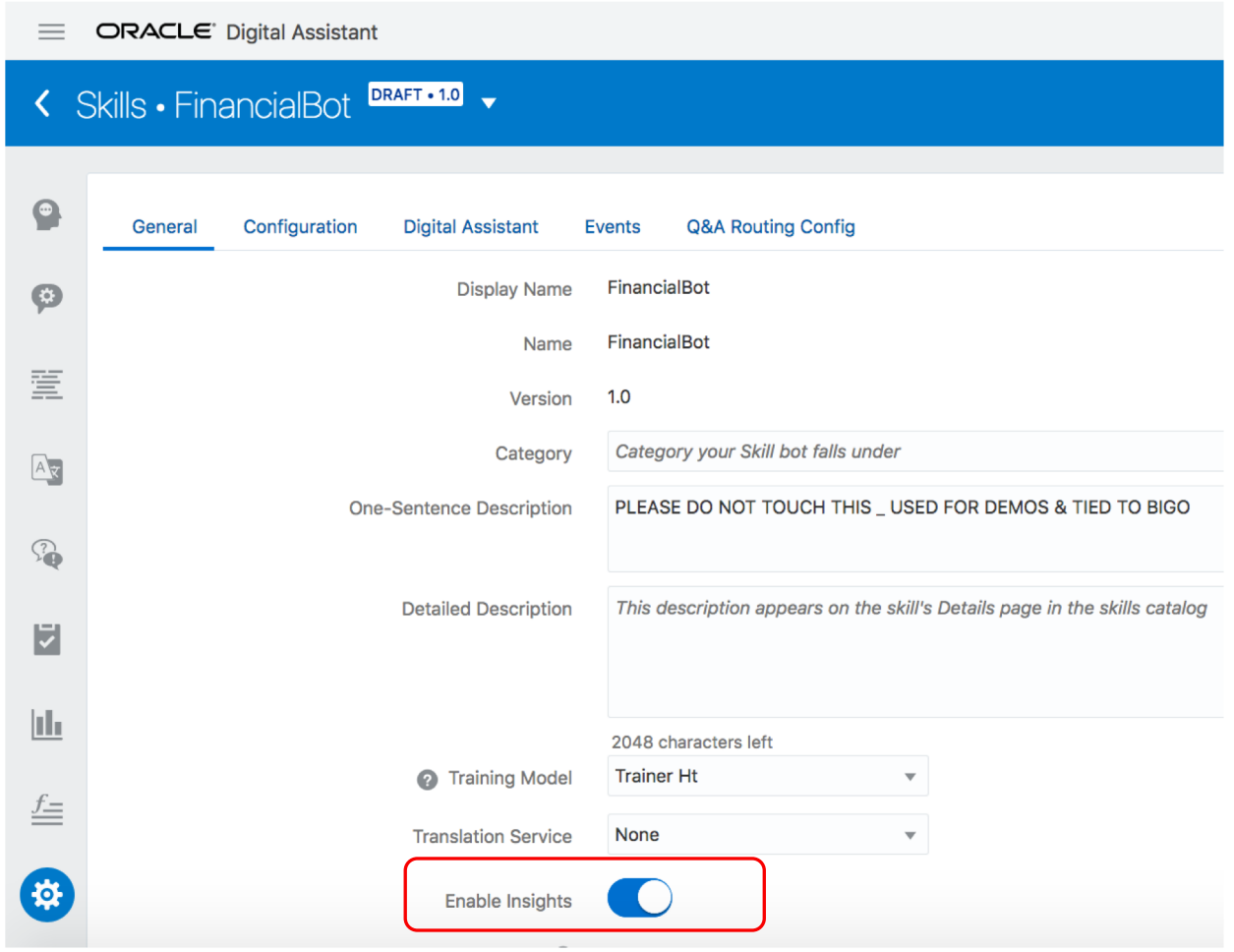
Overview

- Disabled by default
- Available at instance level, digital assistant & skill level
- No instrumentation required
- Conversation completion status
  - Incomplete conversation : one that resulted into an error or abandoned by the user
  - A complete conversation : typically represented by execution of a state that has a return transition



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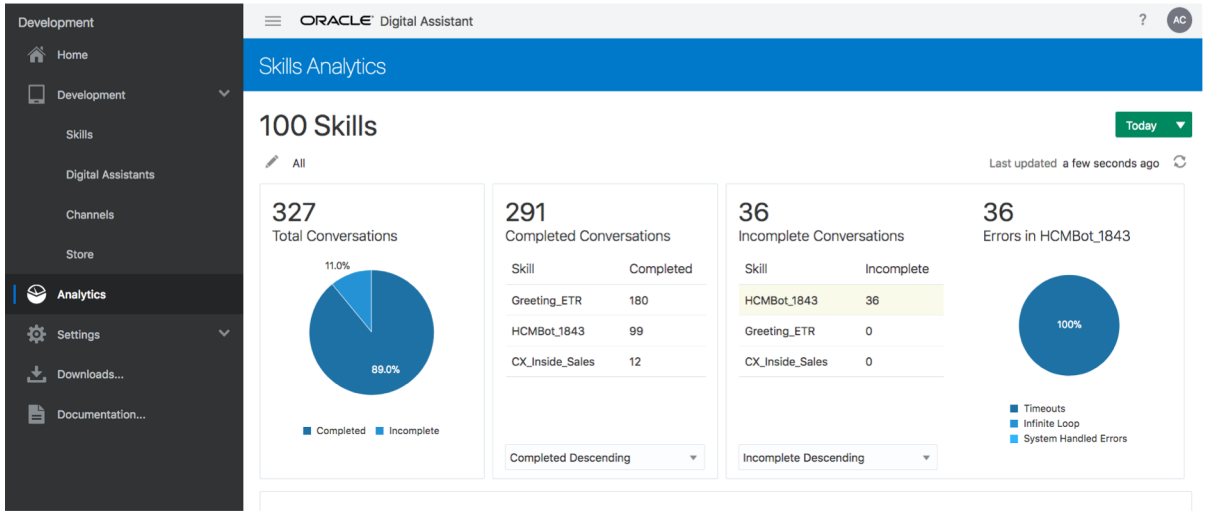
LOB level insights

- Developer analytics are in the context of a single skill,
- LOB-oriented analytics provide an operational view across all the skills in an ODA.
- Goals: Identify usage patterns/popular channels, key problems, common reasons for failures
- Reference Documentation



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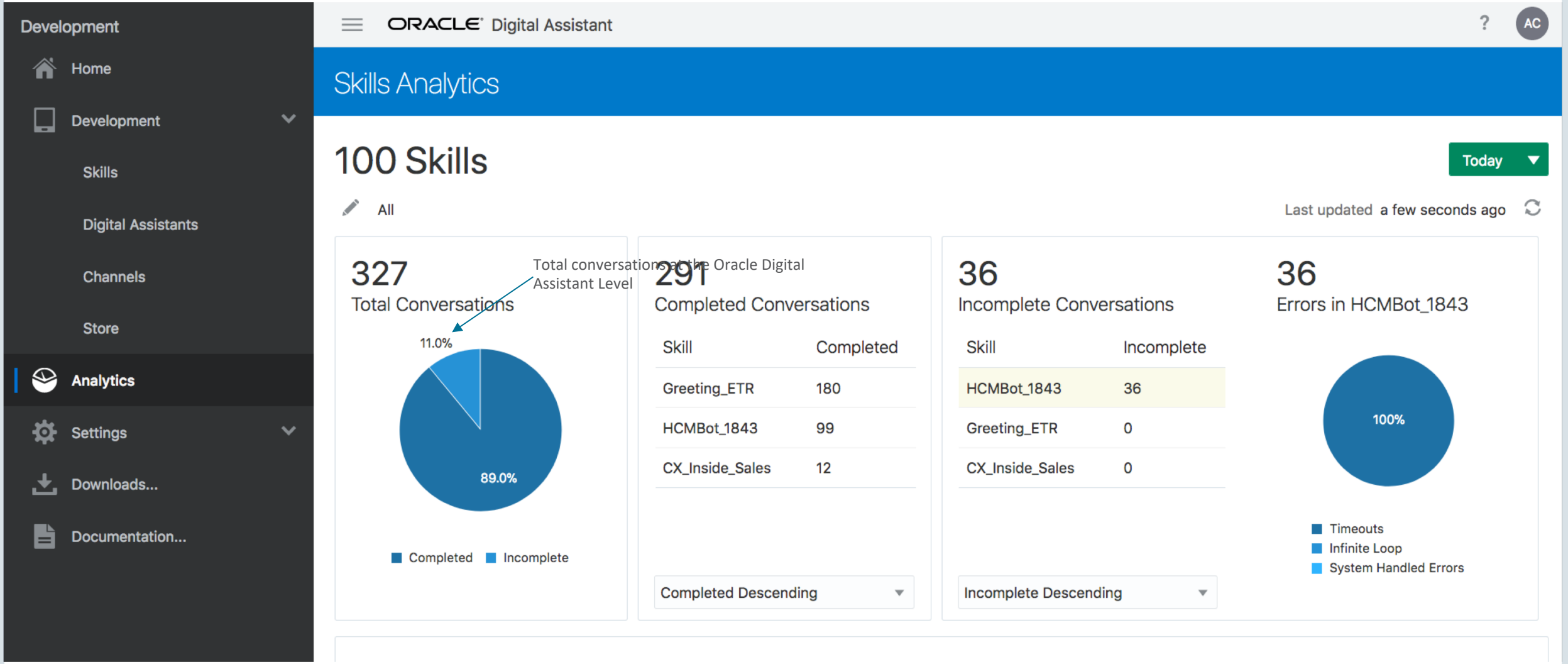

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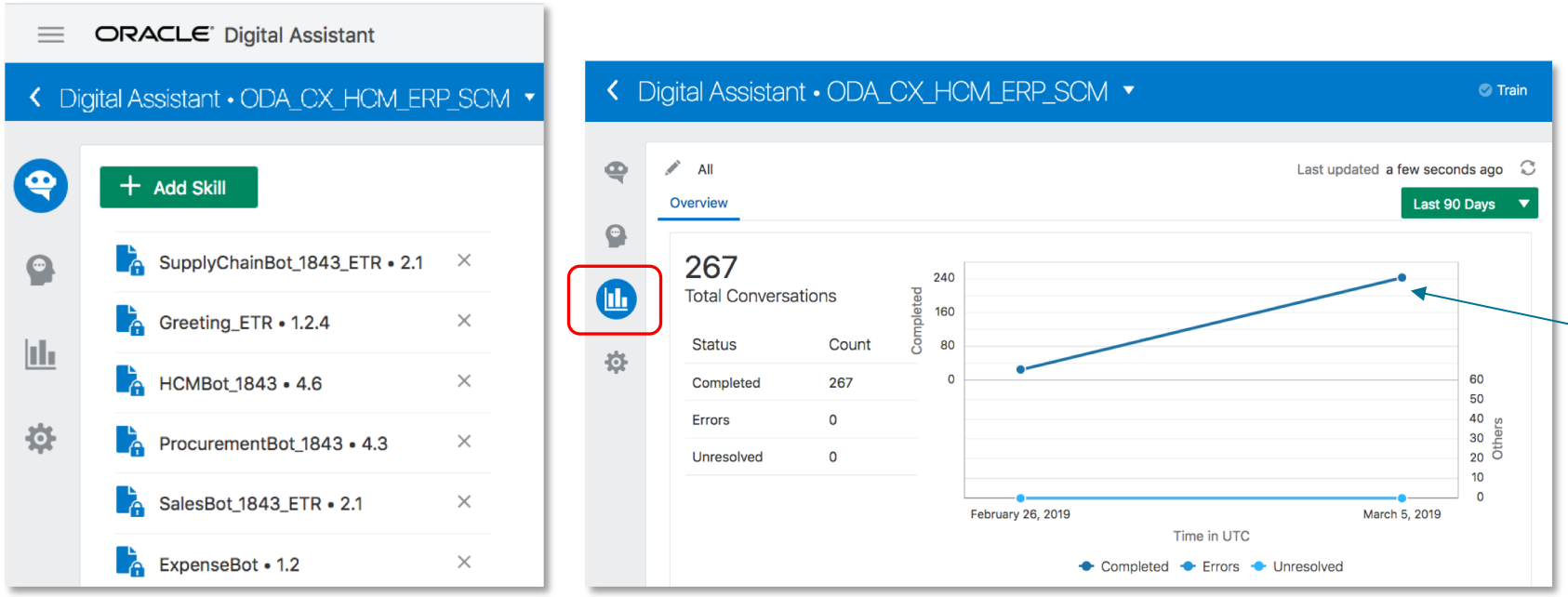
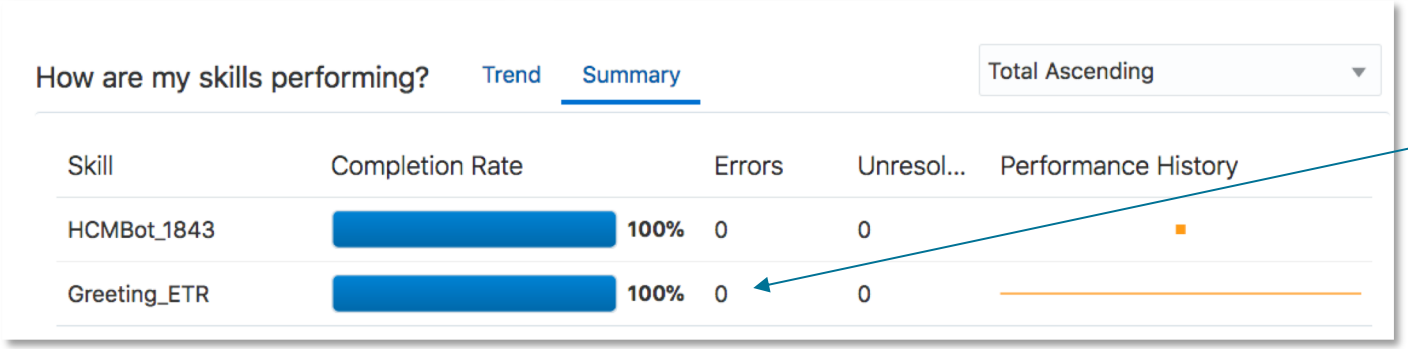
Digital Assistant insights





Top level routing analytics (conversation metrics, completion/error rates for constituent skills), popular skills by invocation

The graph shows total completed conversations across all the skills and also shows conversations that were marked as unresolved.

The indicated skills have a 100% completion rate showing very well designed skills.

[Reference Documentation]

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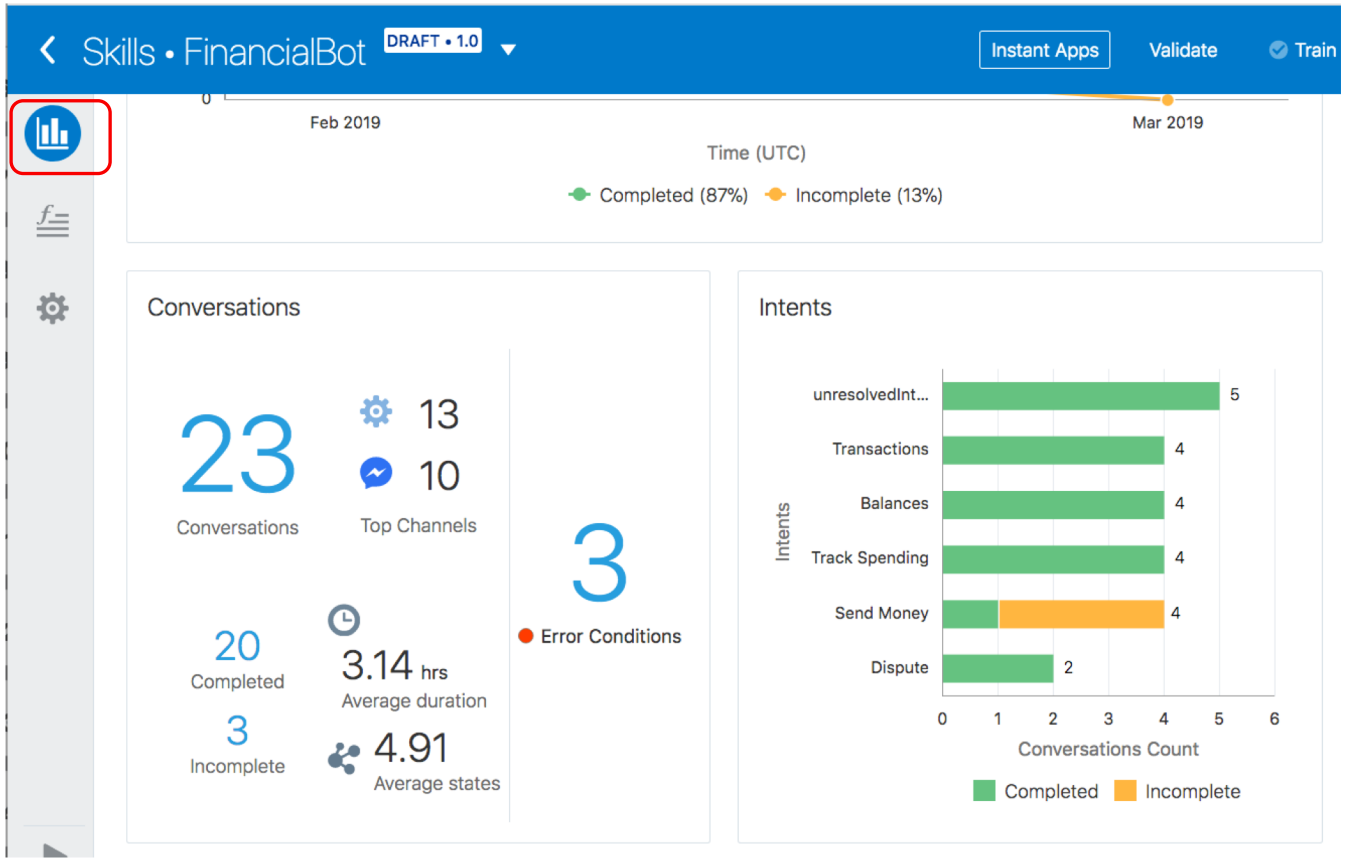
Skill insights

- Skill insights give detailed analysis of a skill in its operational state.
- You can see
  - Number of total conversations
  - Number of completed and incomplete conversations
  - Error conditions
  - Completed and incomplete conversations across intents
- Reference Documentation



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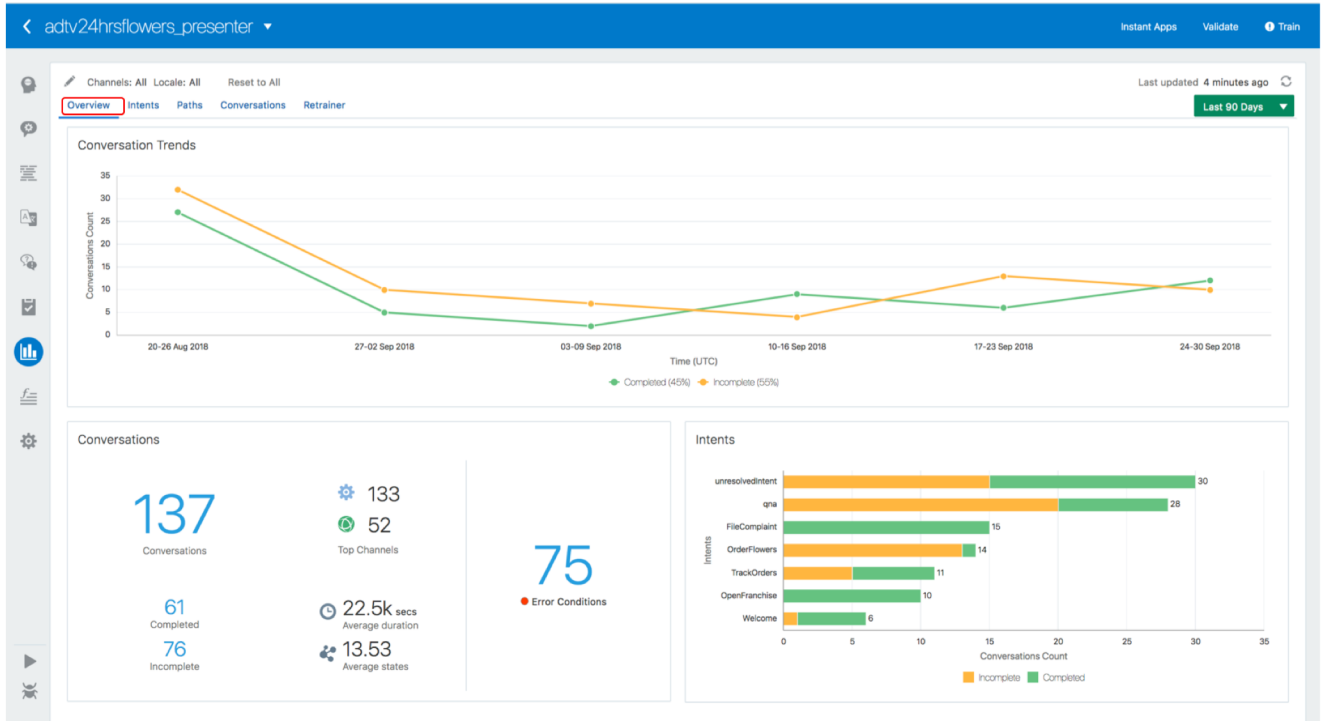
Conversation trends, success indicators

- Overview of number of conversation
  - 61 completed
  - 76 incomplete
- Number of error conditions
  - Could indicate user or system failure
- Completion based on intents
  - High number of unresolved
  - File complaint 100% successful
  - Order flowers high incomplete



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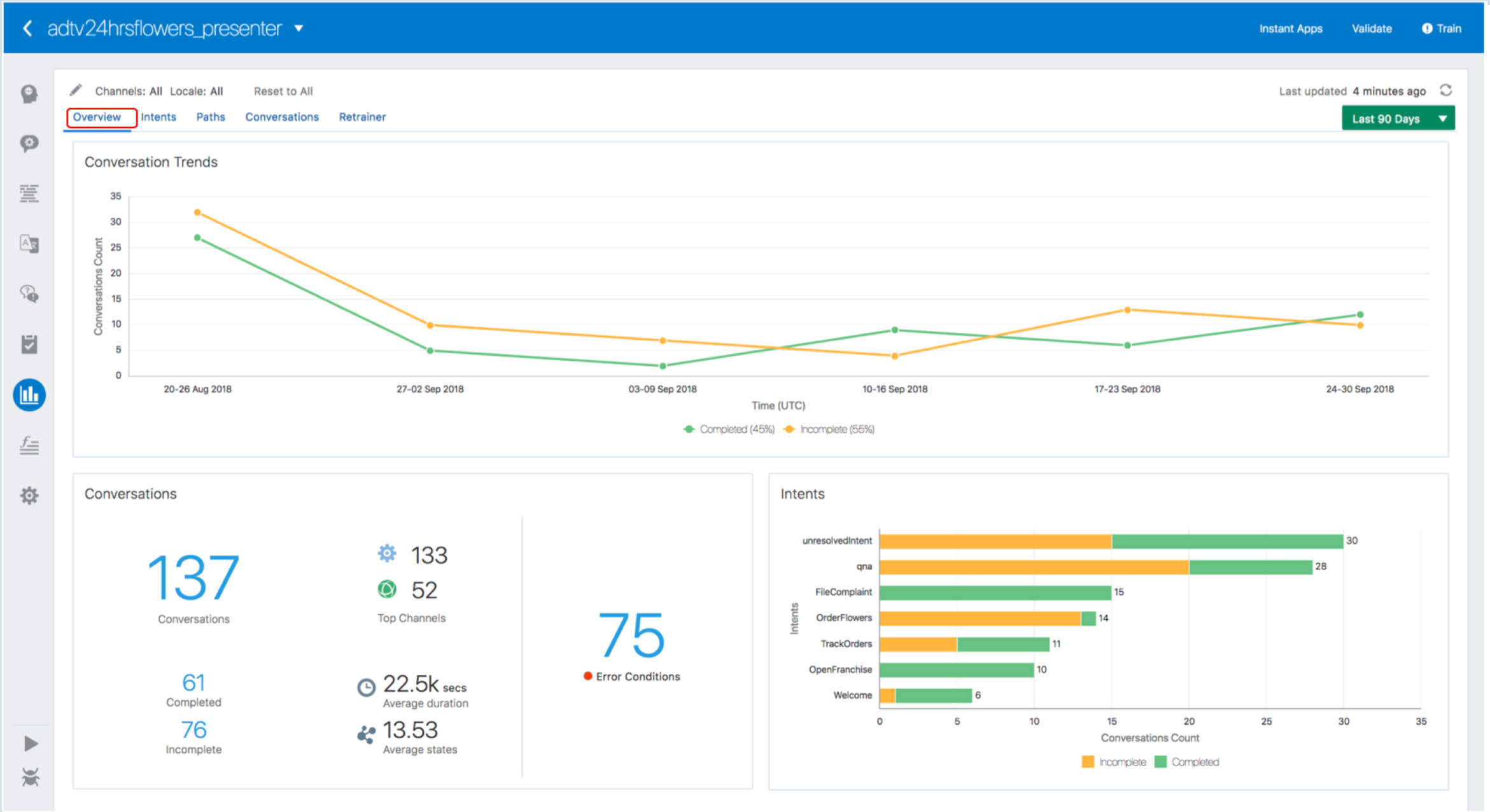

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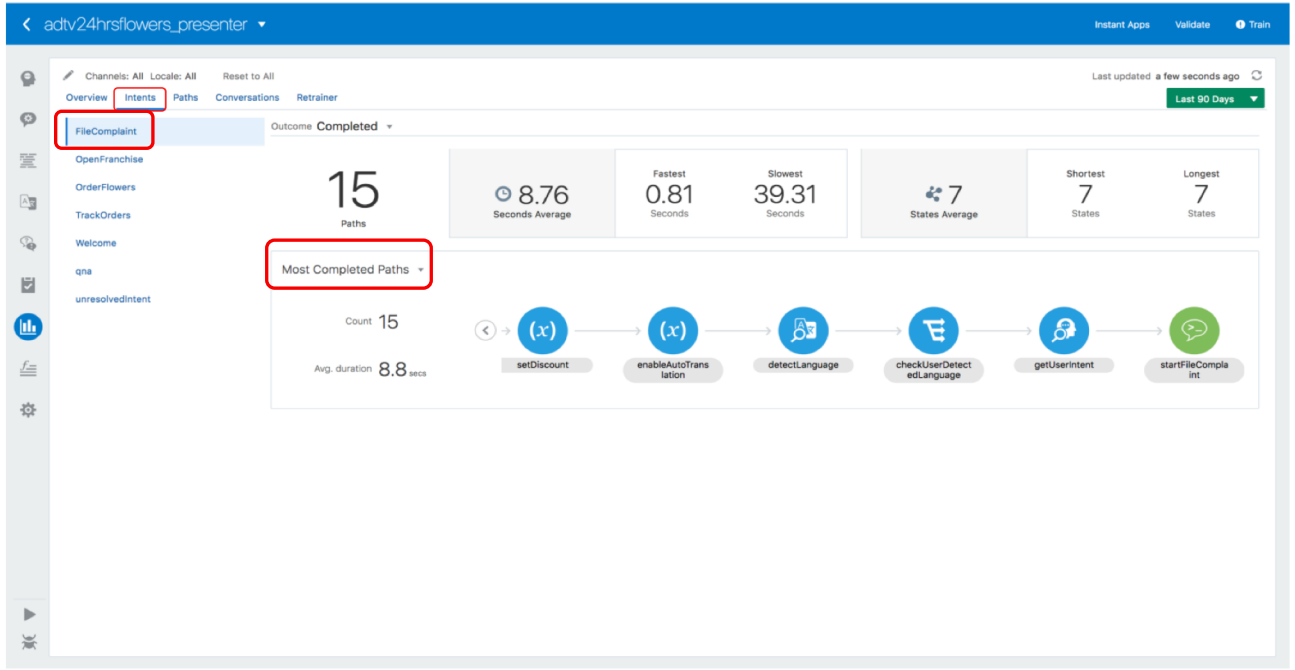
Completed paths – tune intents for shorter, faster paths

- For each intent, view the completed path
  - States conversation passed through
  - Completed path defined by a return transition
- You might be interested why some conversations for the same intent are longer than others
  - Either numbers of steps
  - Average time to complete



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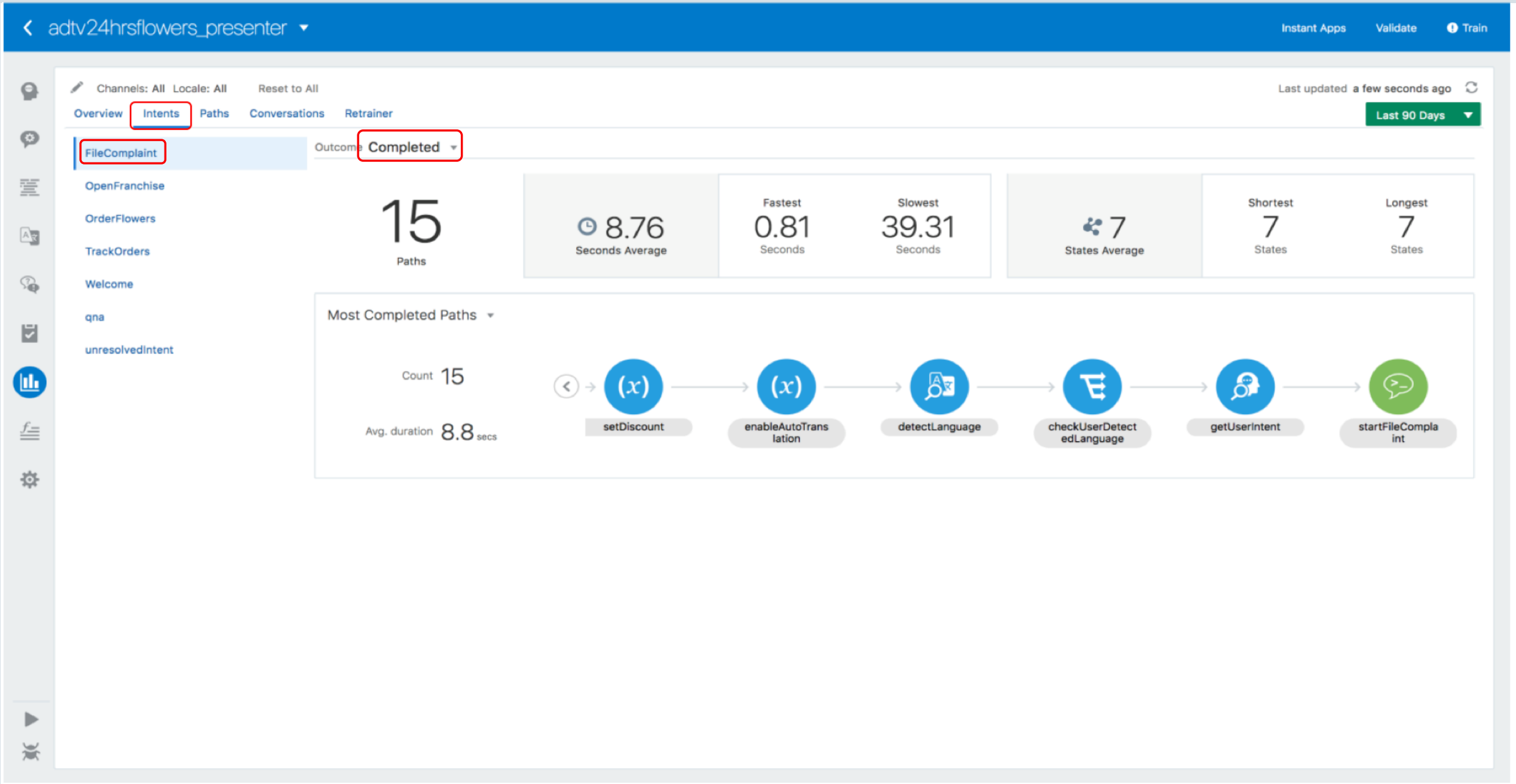

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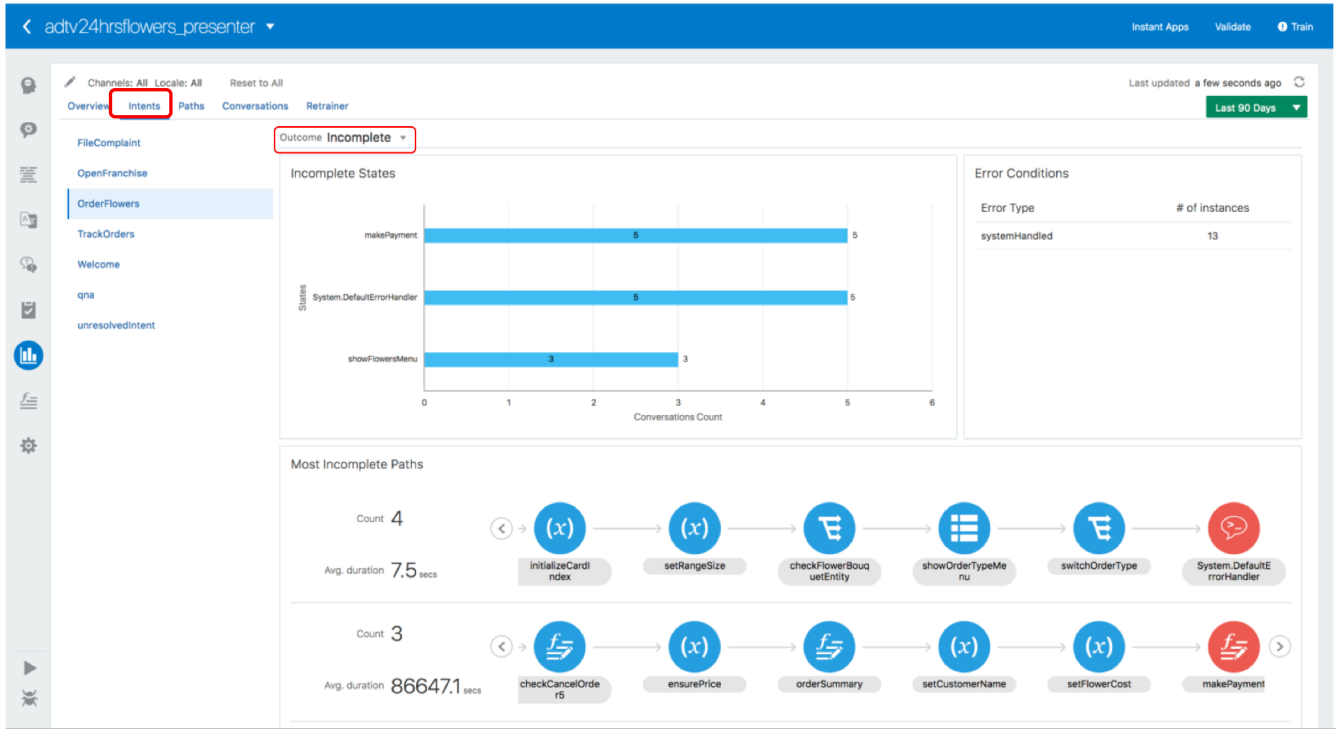
Incomplete paths – why didn't the conversation complete?

- For each intent, view the incomplete path
  - Incomplete is a timesout or error
- Understand at what state the conversation fails
  - For OrderFlowers intent
    - makePayment
      - Timeout?
    - switchOrderType
      - User error??



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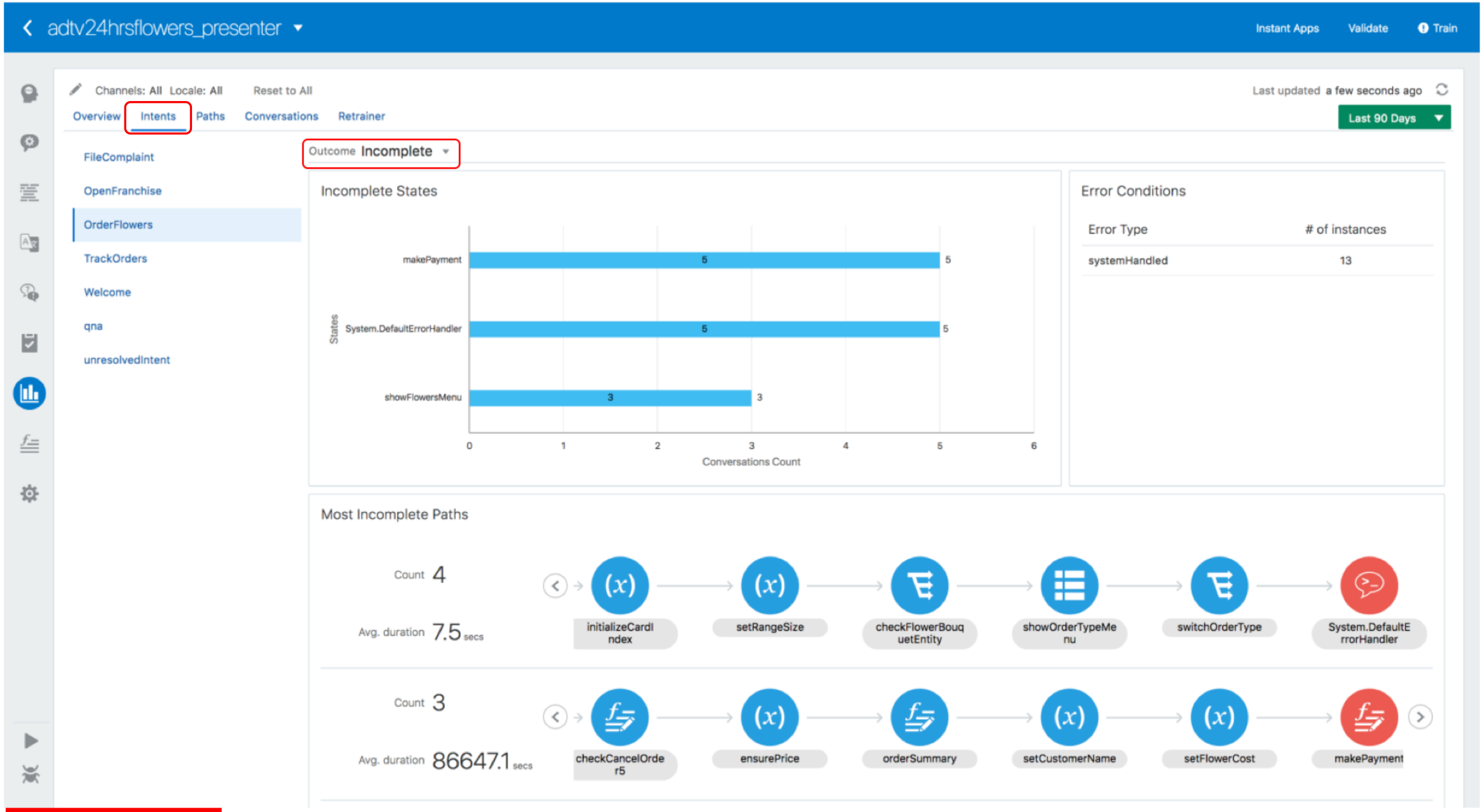

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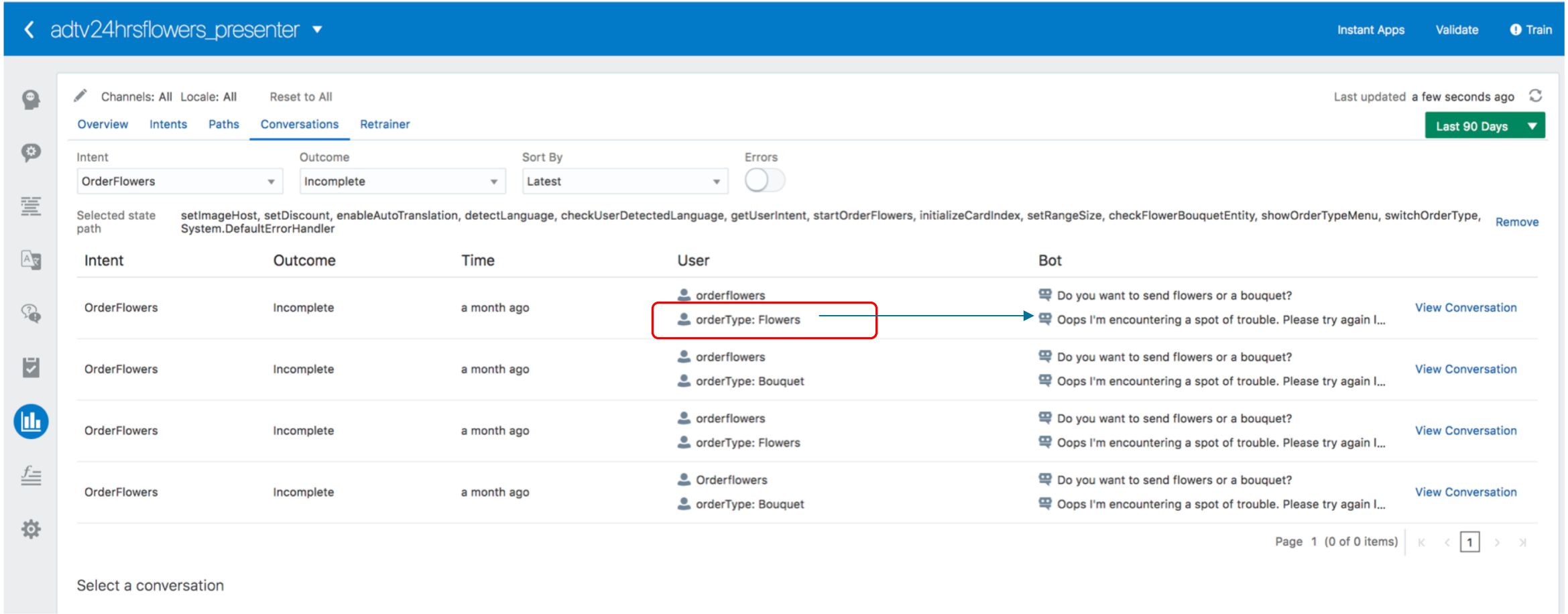
Root Cause - SwitchOrderType



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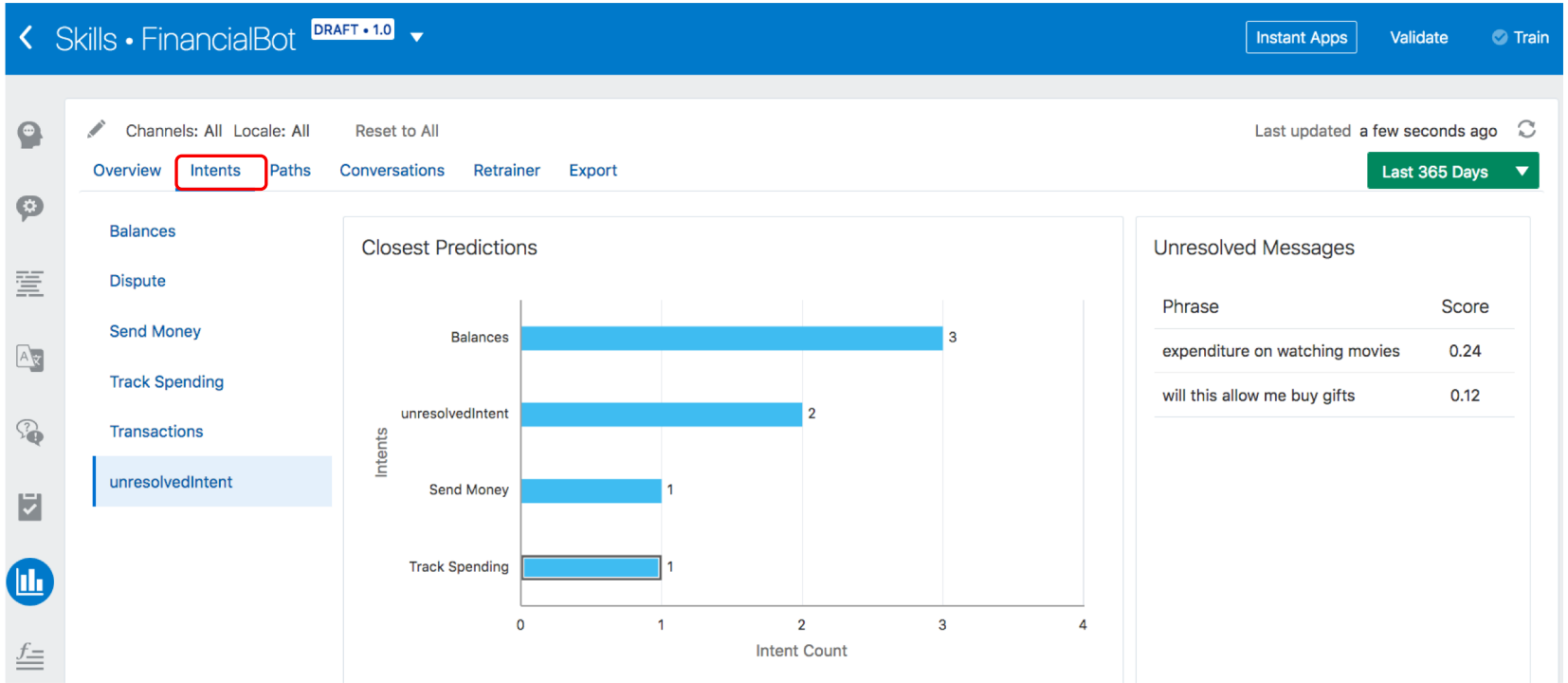
Unresolved intents

- What phrases were unresolved
  - Where the skill has not understood
- Shows the closest possible intent



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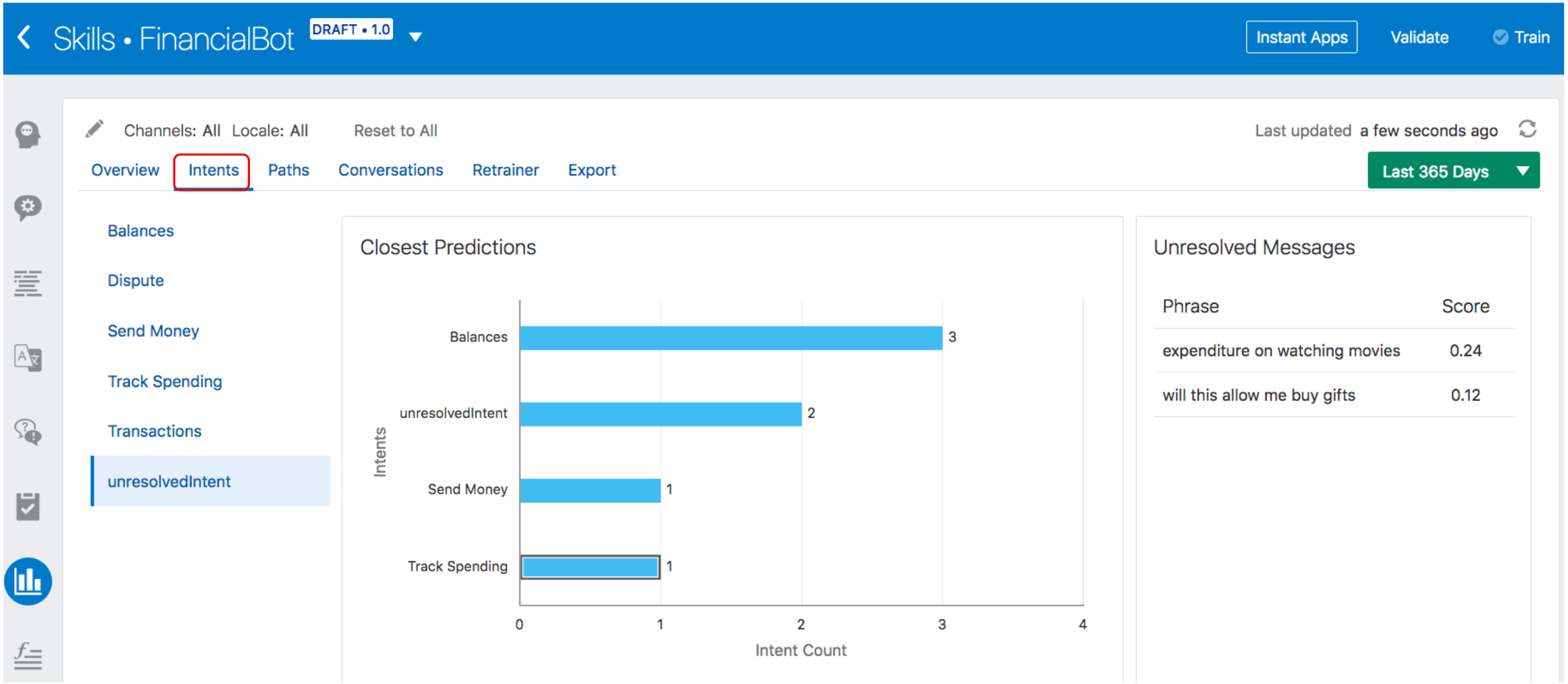

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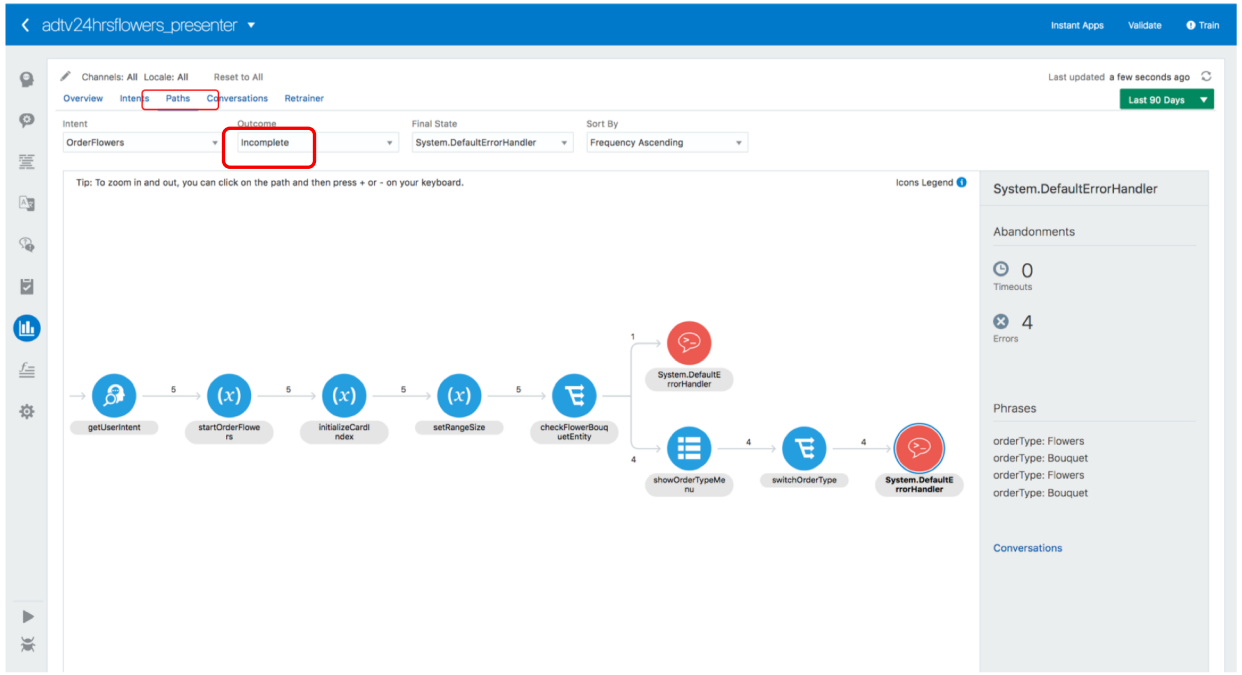
Review paths – Why users are not able to complete

- Insights into conversation path based on
  - Intent
  - Outcome
  - Final state
- View all or focus on specific intents
  - View conversation information
    - Average states
    - Average time
    - Conversations



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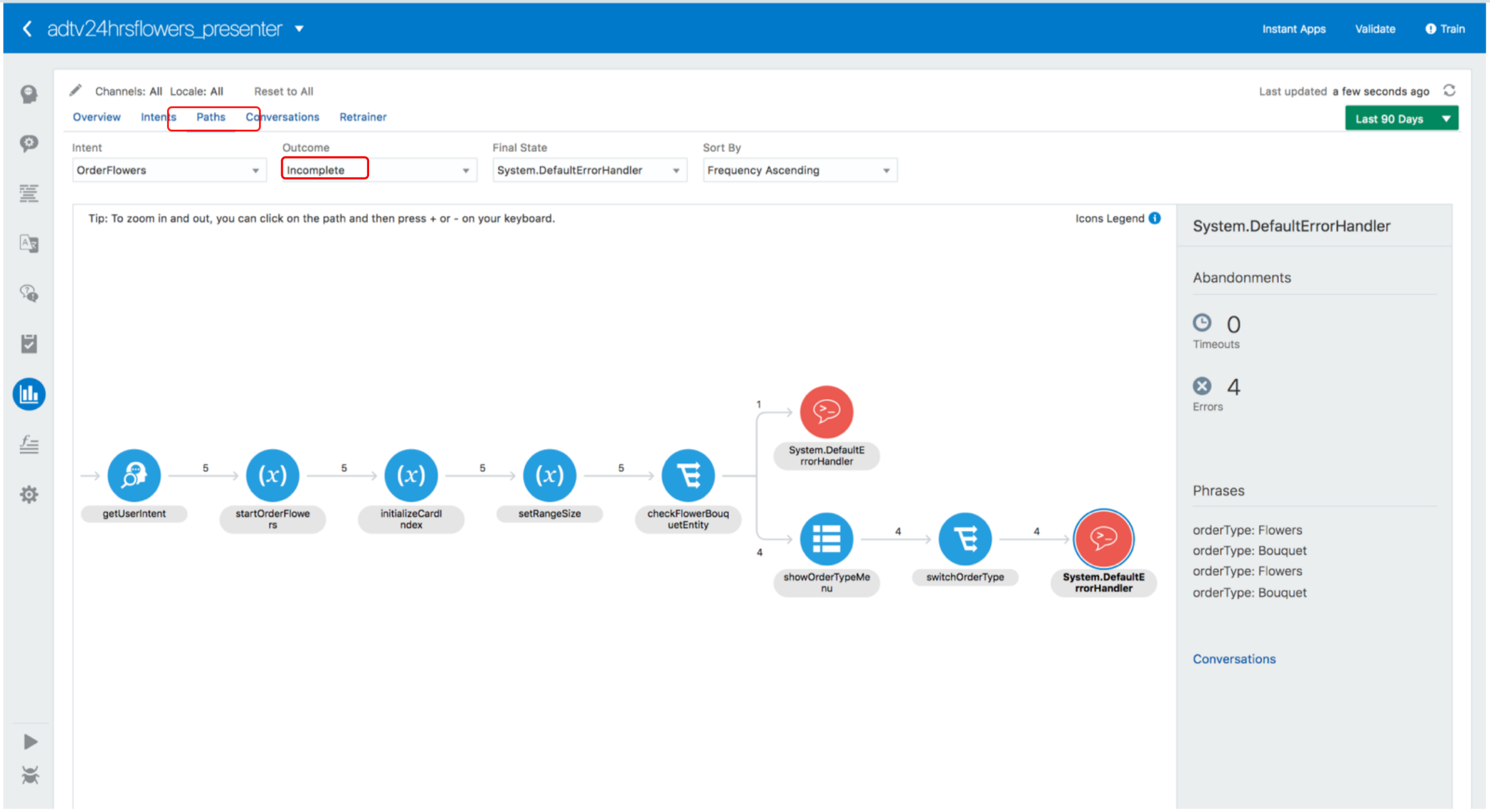

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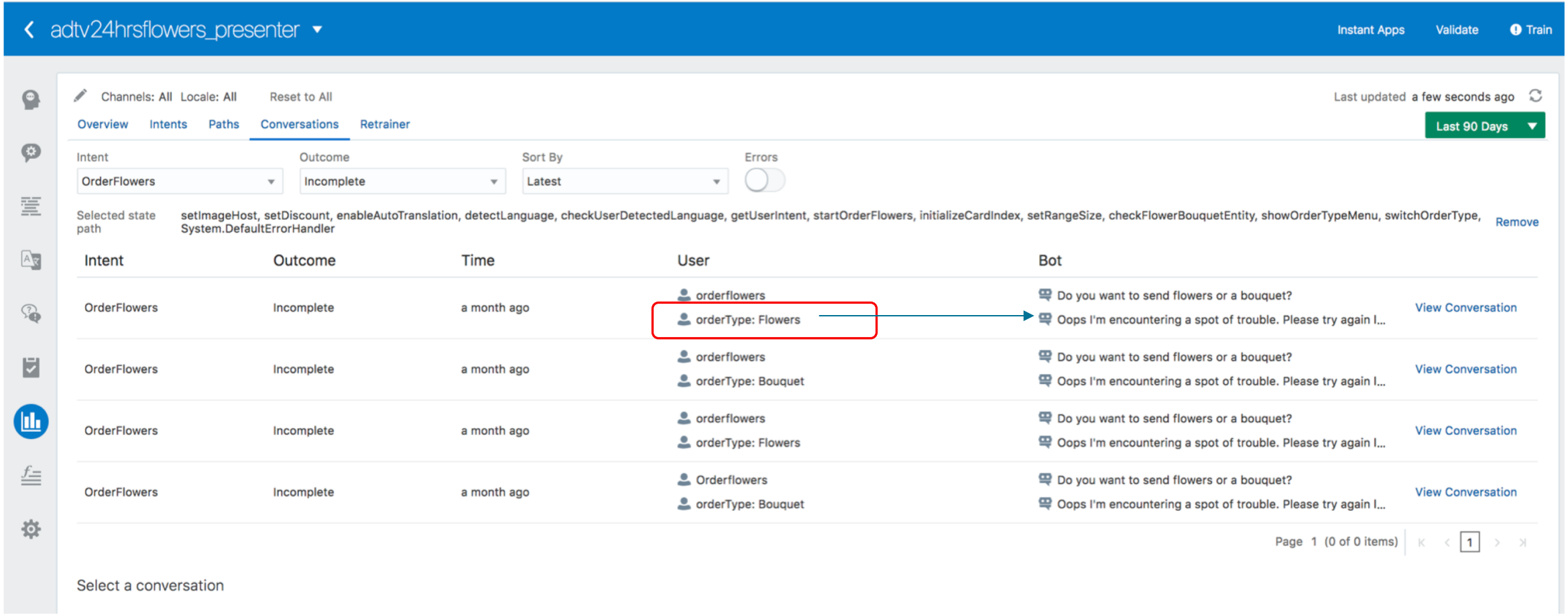
Root Cause - SwitchOrderType



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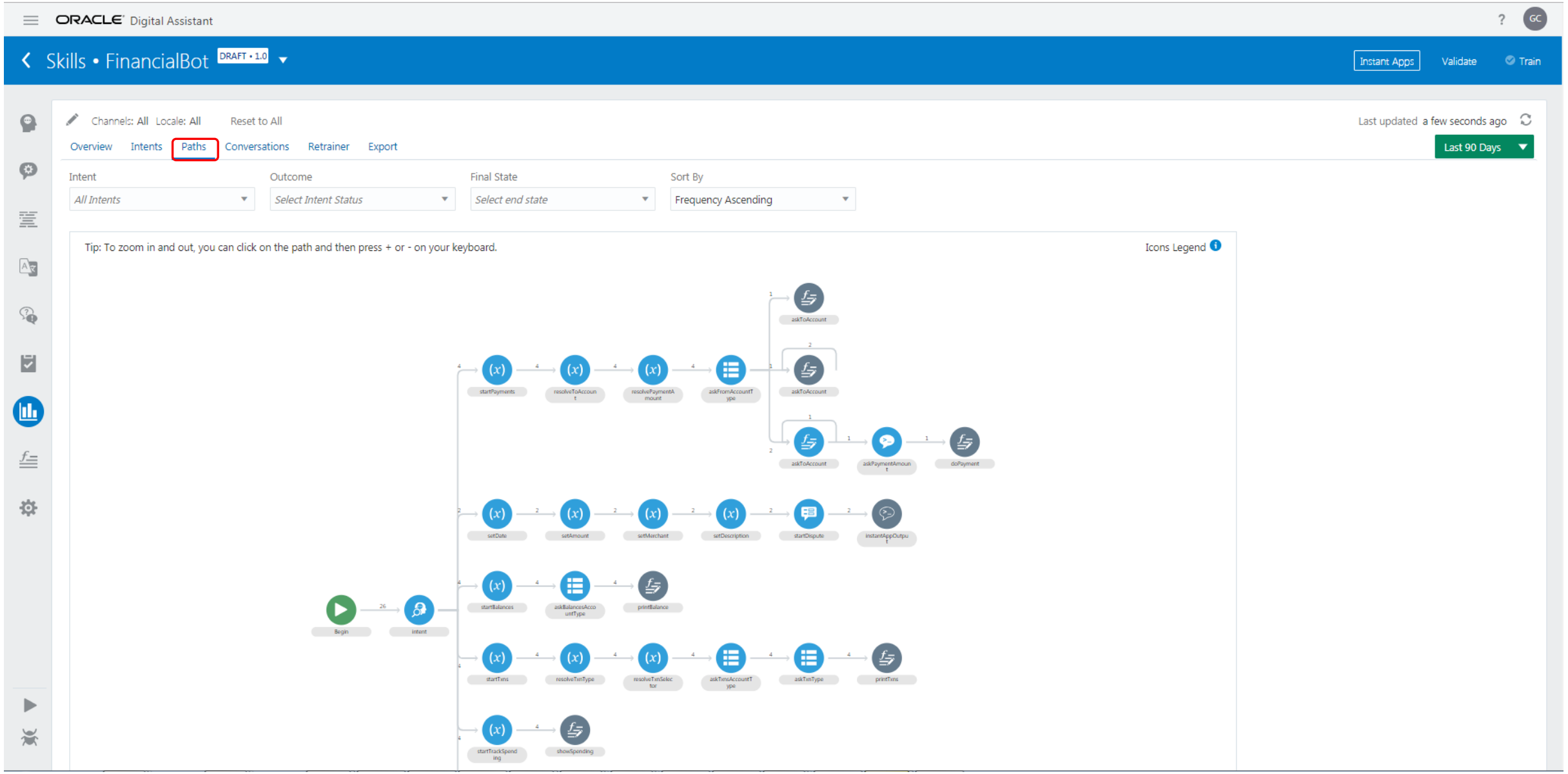

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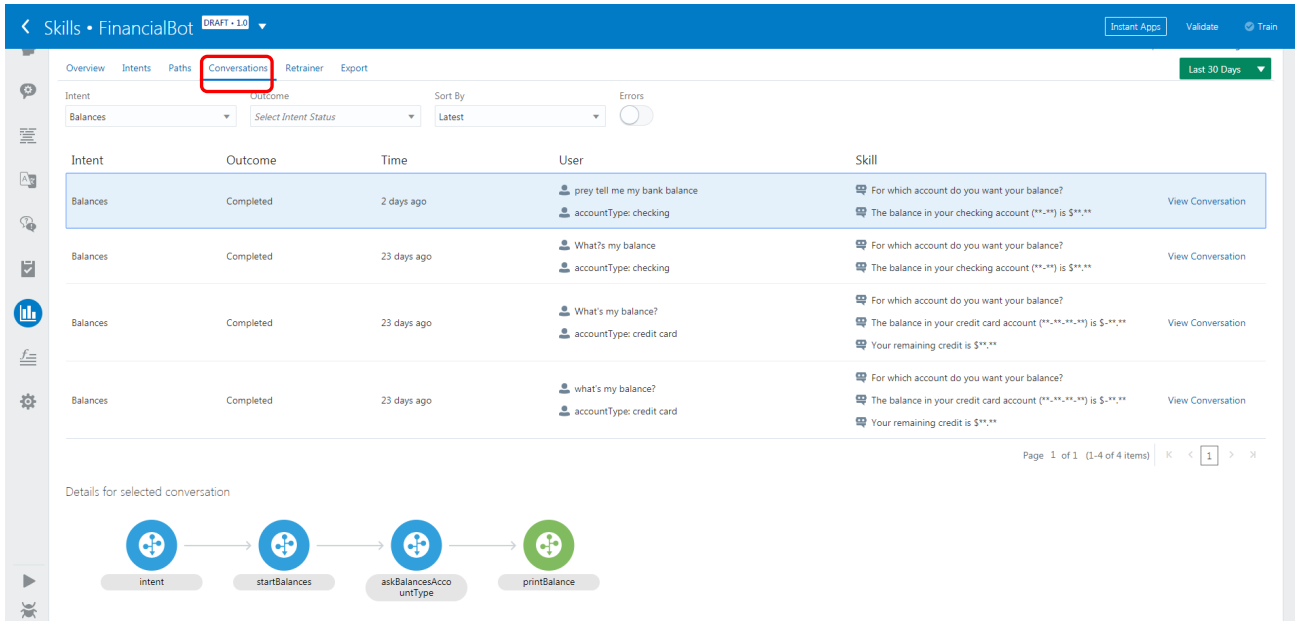
Conversations summary view

- Skill designer or business can query a conversation
  - Intent
  - Outcome
  - Date
  - Error condition
- Enables the business user or developer to locate conversation reported by an end user
  - Can view the conversation states
  - Can view the full conversation



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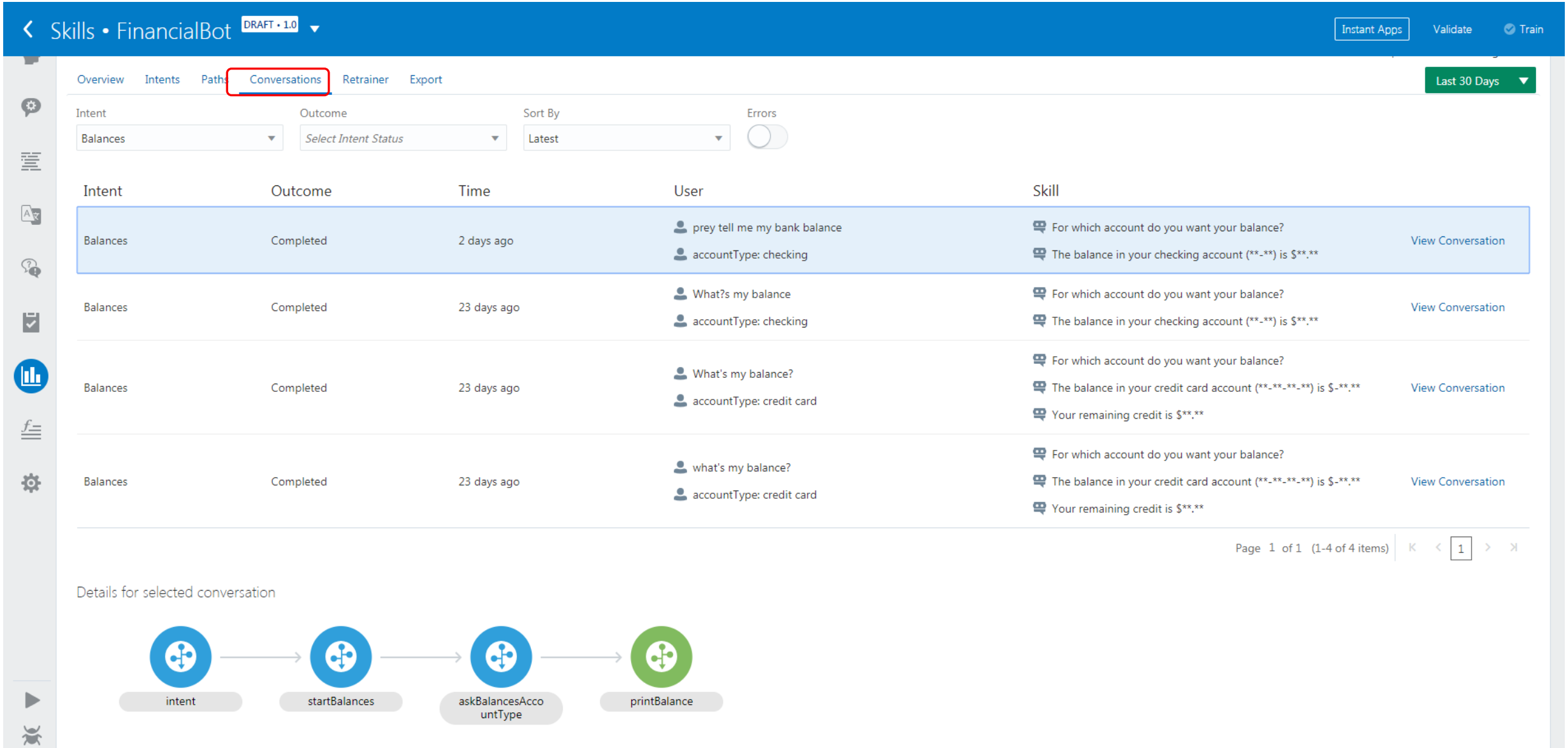

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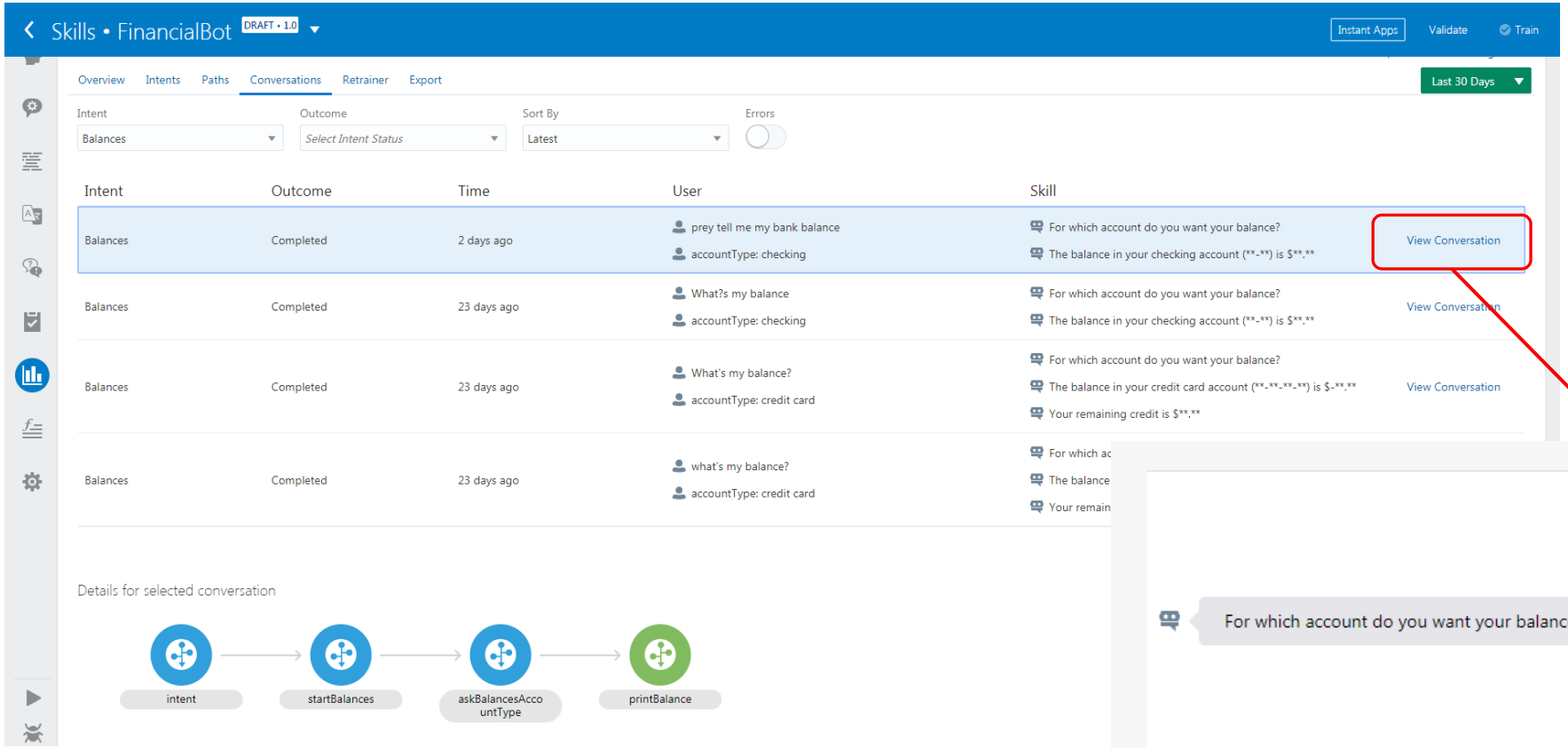
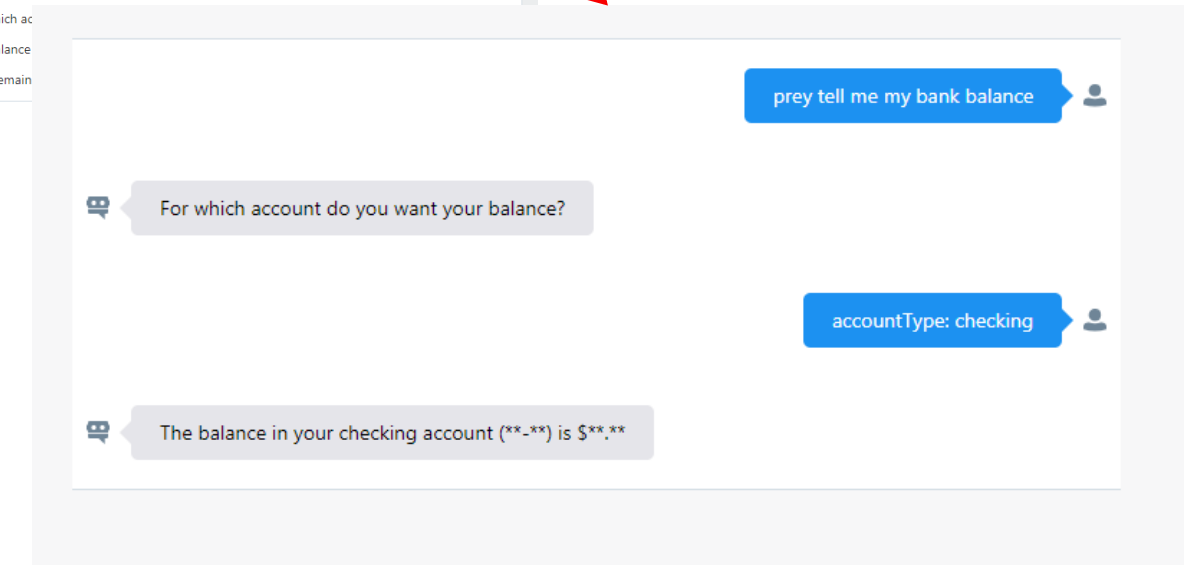
Drilldown – individual messages





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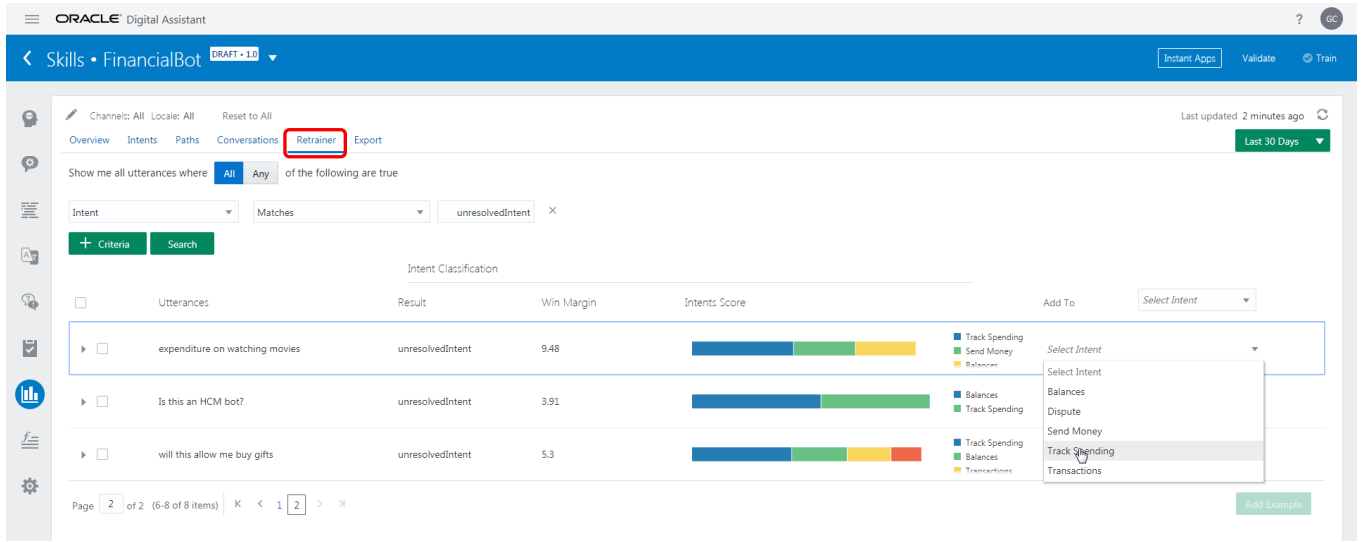
Retrainer – moderator prepare the skill for future

- Retrainer provides a tool to query utterances and examine if they were resolved to the correct intent
  - Check for correct intent resolution
  - Check for unresolved intents
- Retrain from within the dashboard



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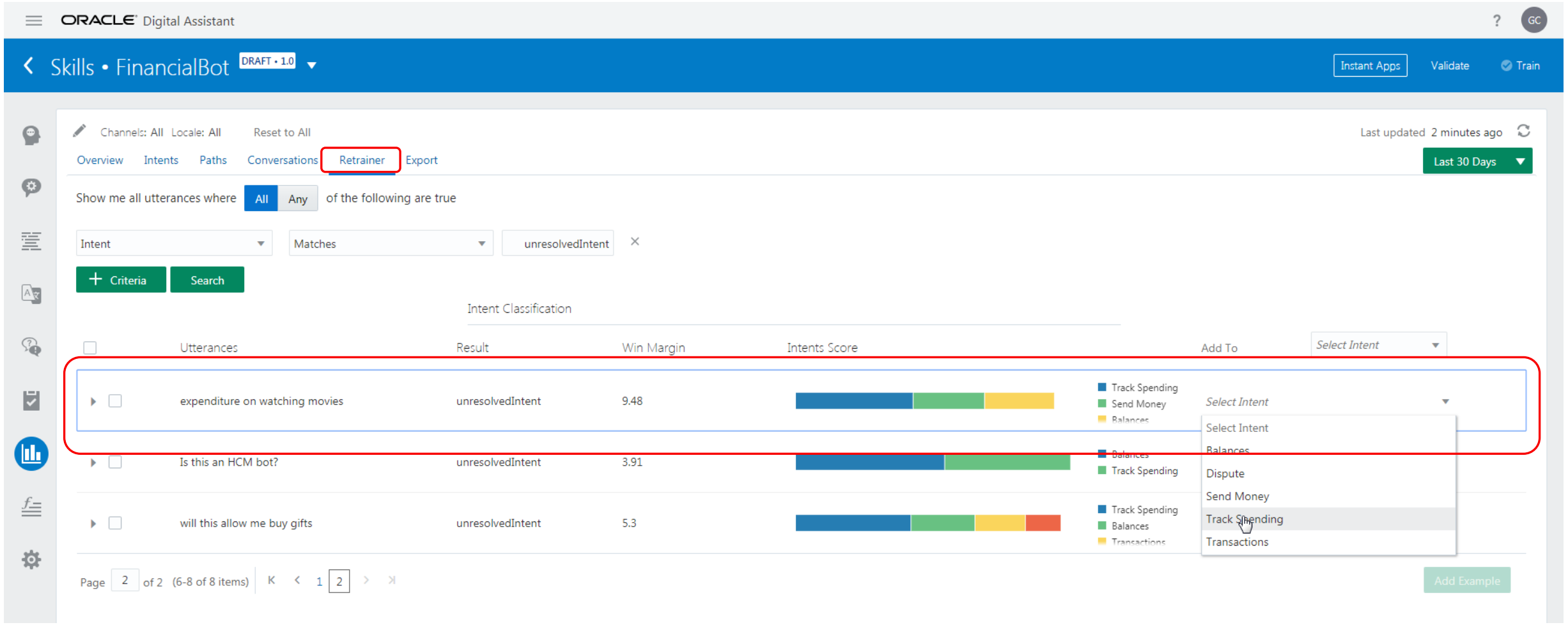

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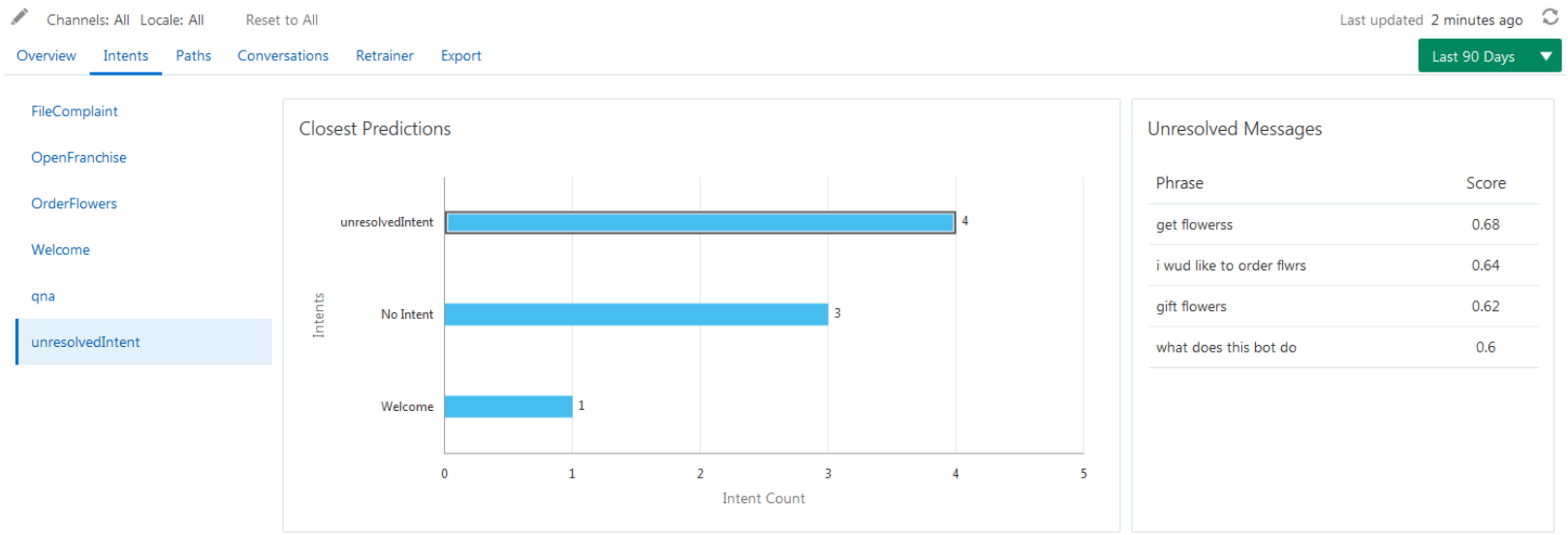
Some popular short forms or common typographical errors



There are a couple of messages that catch your eye because they can help your skill fulfil its primary goal even if the customer input contains typos, slang, or unconventional

- shorthand: "get flowerss" (68%)
- "i wud like to order flwrs." (64%)

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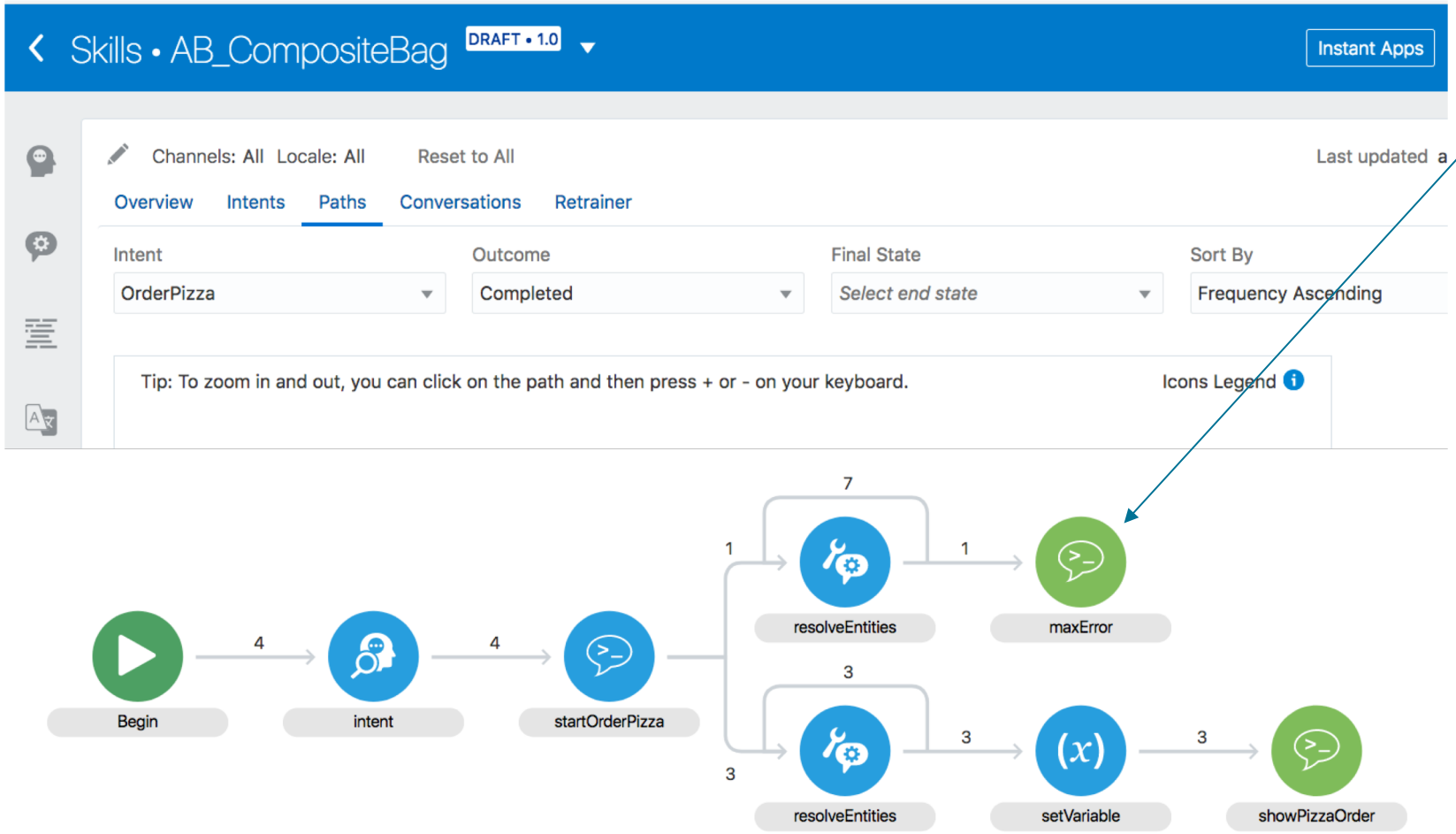
Drill down – find out error condition and cause



Conversations marked as complete but have not logically concluded with a positive scenario.

There seems to be a MaxError state that indicates the skill failed to continue.

The resolveEntities have probably asked user a bunch of questions and since it is probably not well designed user could not continue.

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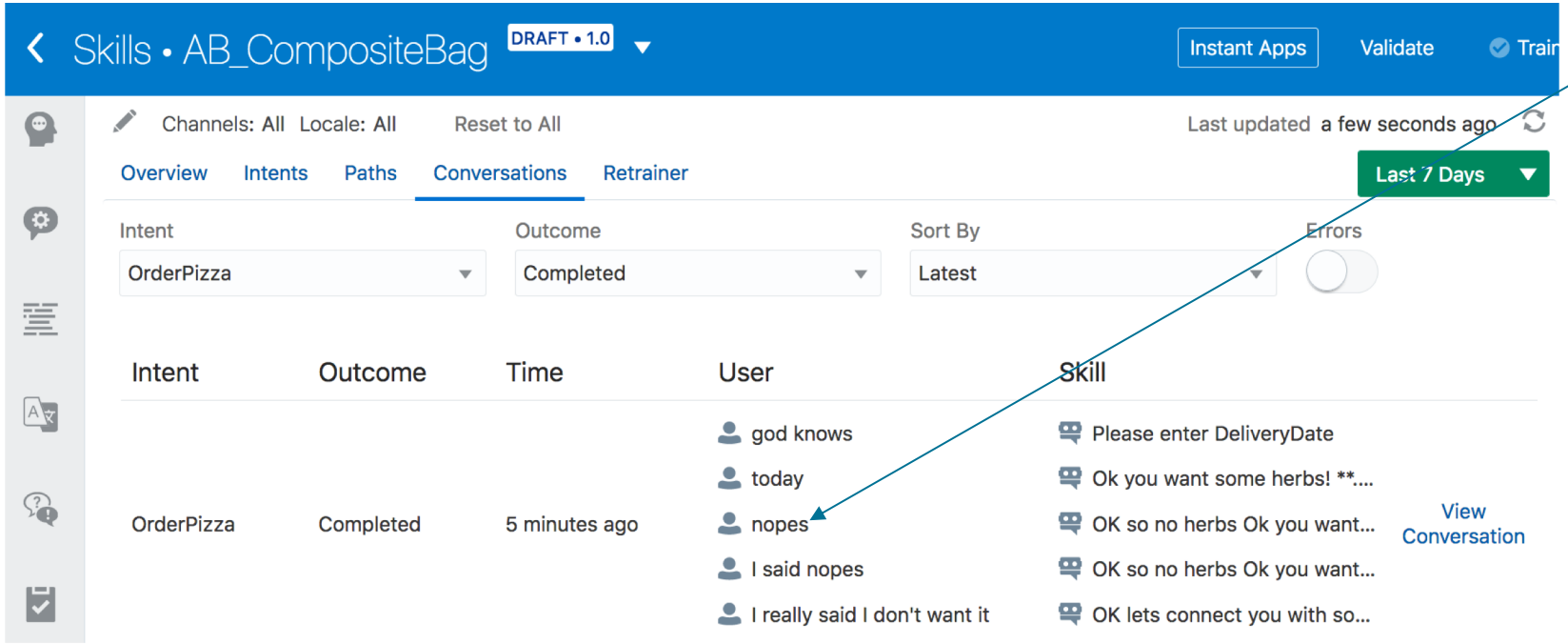
Review conversation that causes the failure



Note that the user indicated that they do not need any herbs as toppings but the skill kept insisting and then ultimately failed.

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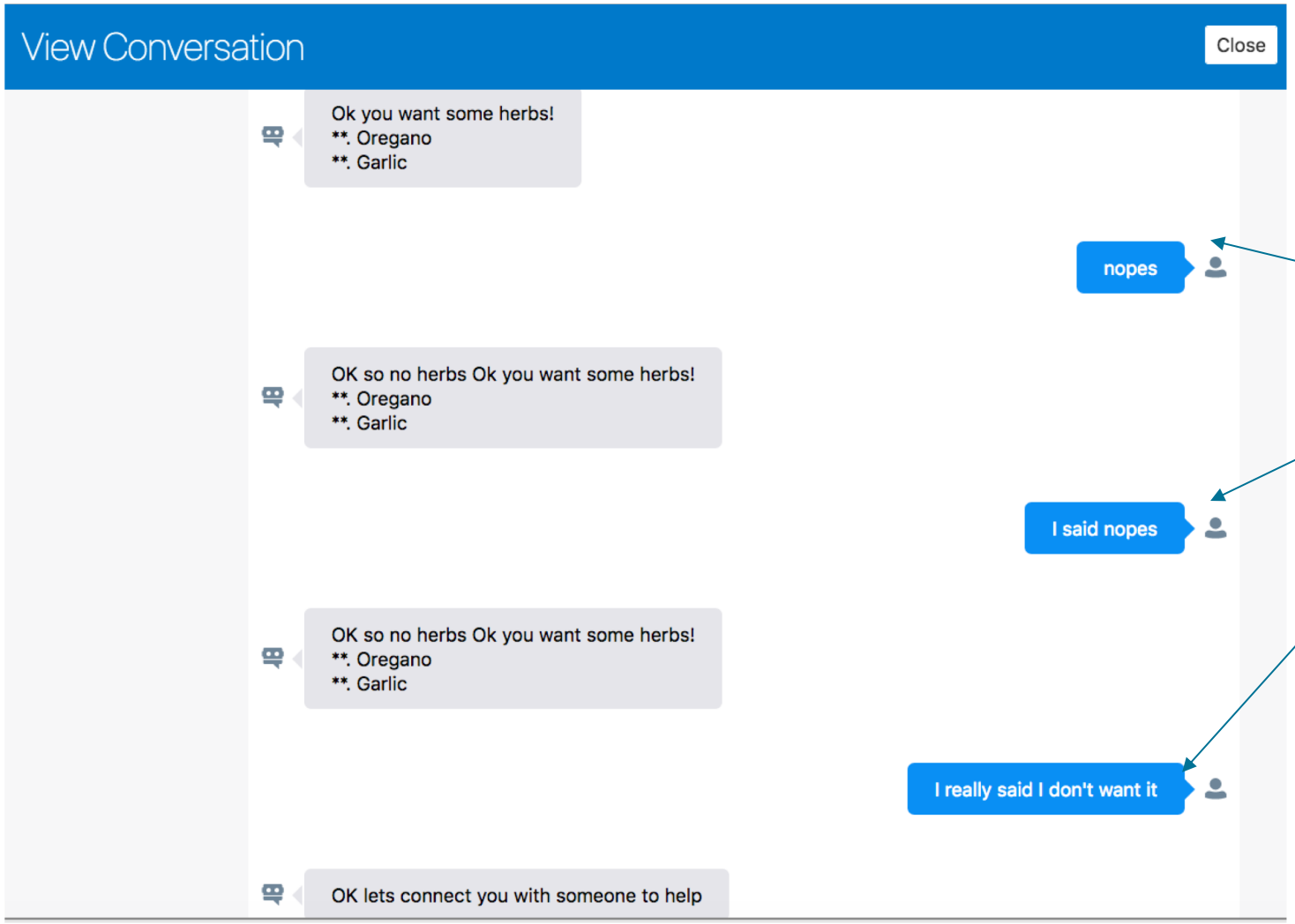
Review conversation that causes the failure



You can drilldown to the finest details and see how the skill responded to the user.

In this case if the user entered nopes, not interested, etc. the skill should skip this step and gracefully proceed to the next step.

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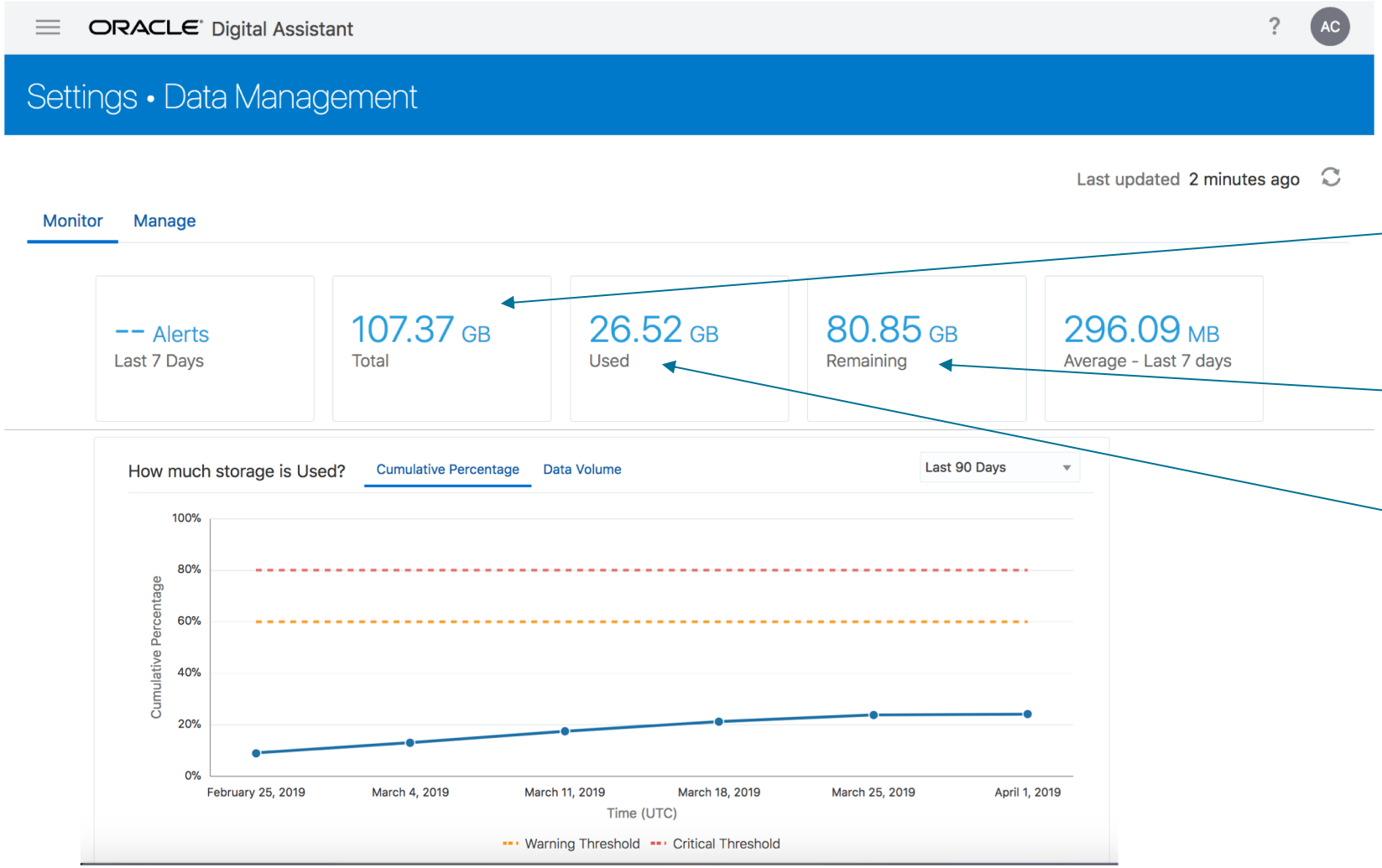

Monitor storage used as you enable insights and skills logging.

The total storage available.

Remaining

Used Storage

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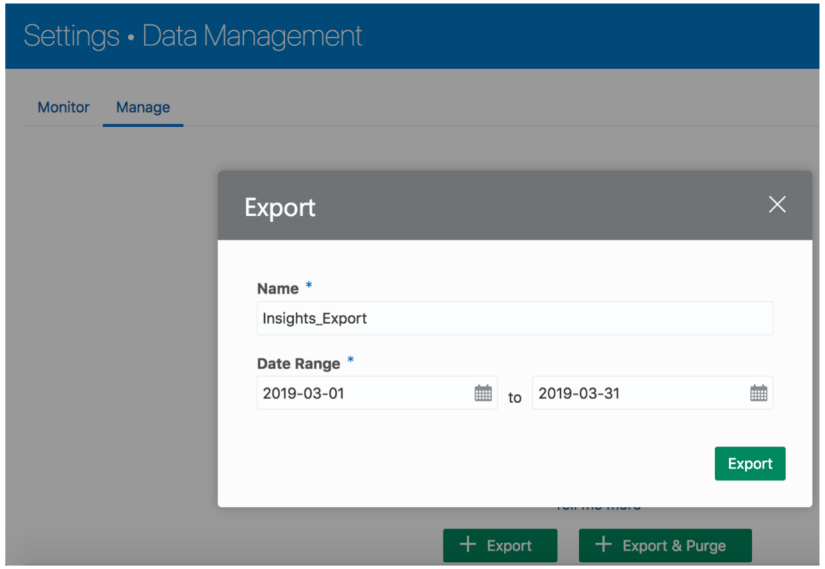
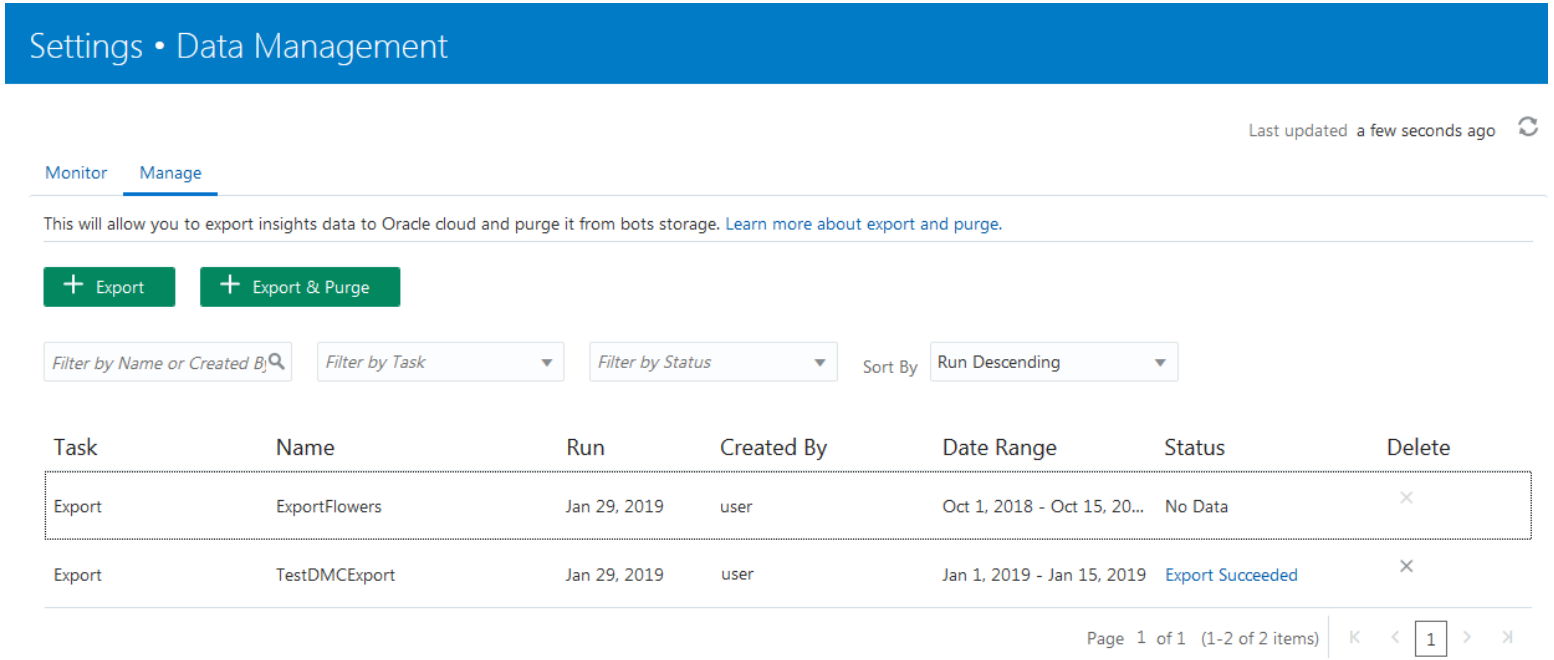
Export & Purge Data



You can export the insights data by giving a date range.

You can also purge the data so as to release storage.



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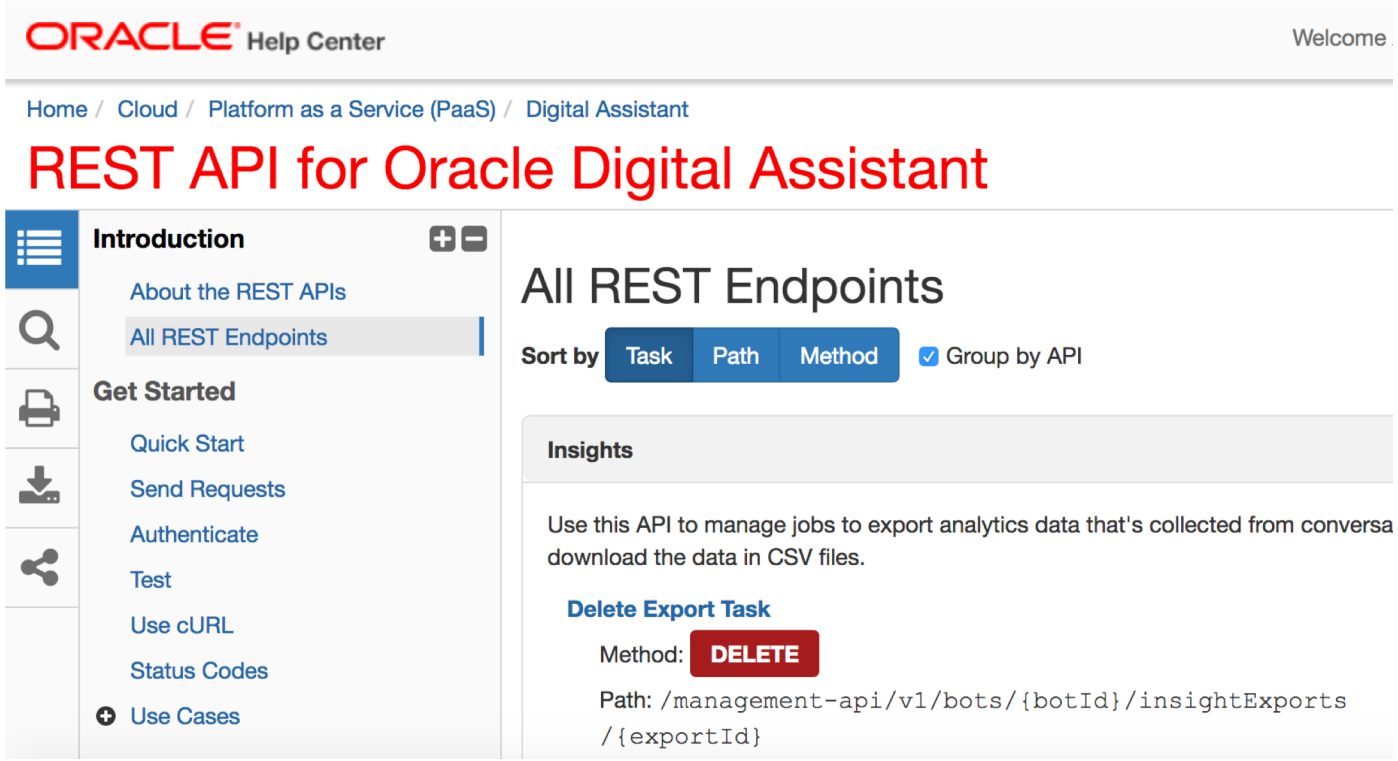
REST API for BOT Insights Export

- https://docs.oracle.com/en/cloud/paas/digital-assistant/rest-api/rest-endpoints.html

The REST API for BOT Insights enables developers to export data using a REST API



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