



Team TRANSform





Hello!

We are QAD's capstone team:

Andrew Luo, Norman Chung, Ryan Siu, Simon Kim, Troy Lee



QAD Overview



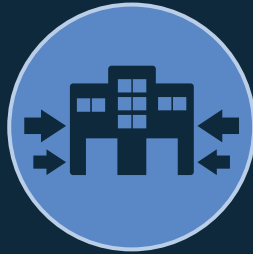
Offices
19 Countries



Revenue
\$311m (FY20)



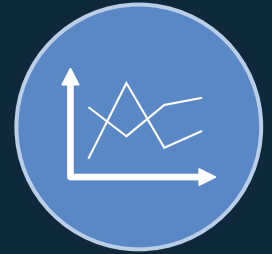
Employees
1,925+



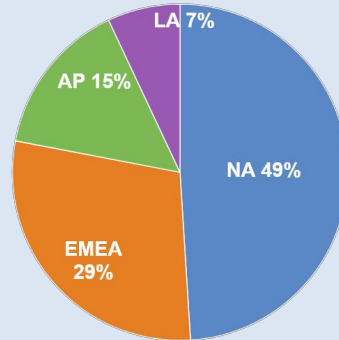
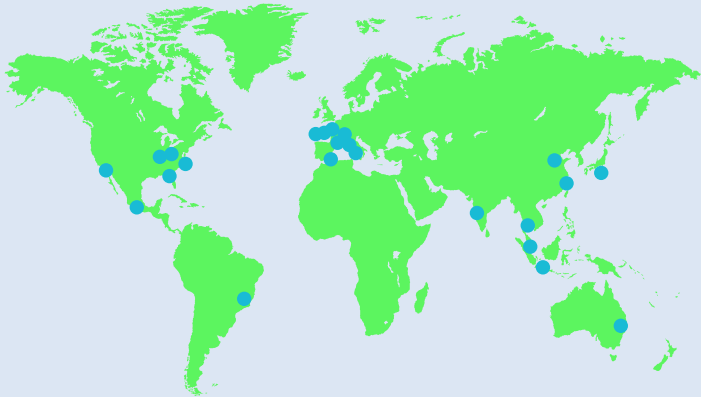
Customers
100+ Countries



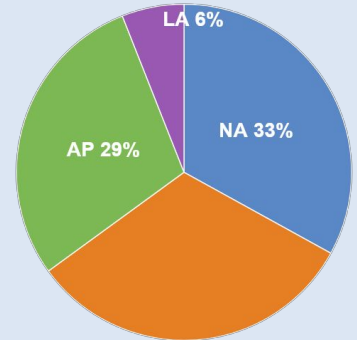
Customer Sites
4000+



Stock
NASDAQ:
QADA, QADB



Customers



People

QAD is a leading provider of adaptable, cloud-based enterprise software for global manufacturing companies.



Ryan is a customer
service rep.

He is made aware of a customer
dispute while on the phone.







Problems:

ERP application is large in size and can be difficult to navigate

Noisy work from home environment





Solutions:

Adding a virtual assistant for easier access and efficiency





Simon is a sales
representative.







Time Comparison

Current UI:

- ◇ Intuitive to filter, but takes some time to enter the correct dates ~ 30 seconds

Voice Assistant:

- ◇ Faster speed ~ 15 seconds





50

Sales Representatives
Saving

5 minutes

Per day
Saves a company...

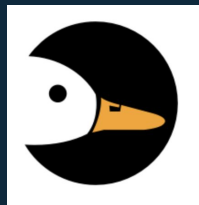
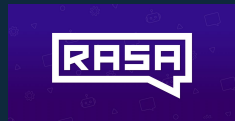
1000 hours

Every year

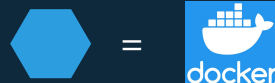
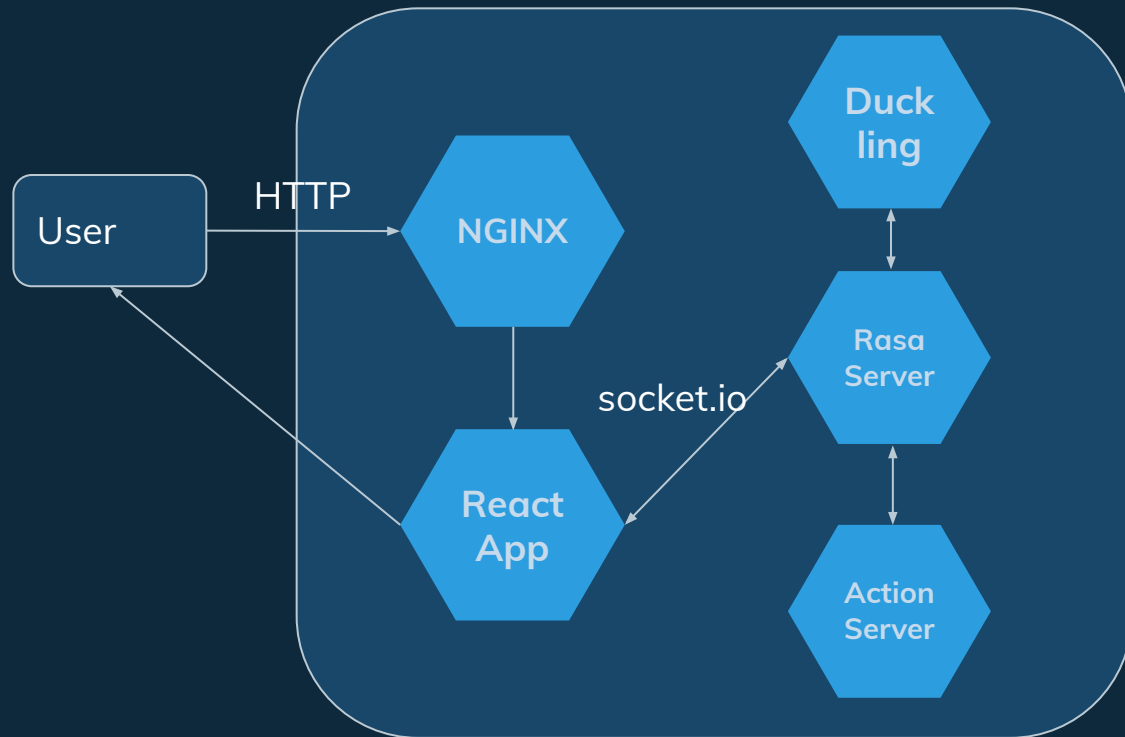


Architecture

Technologies Used:

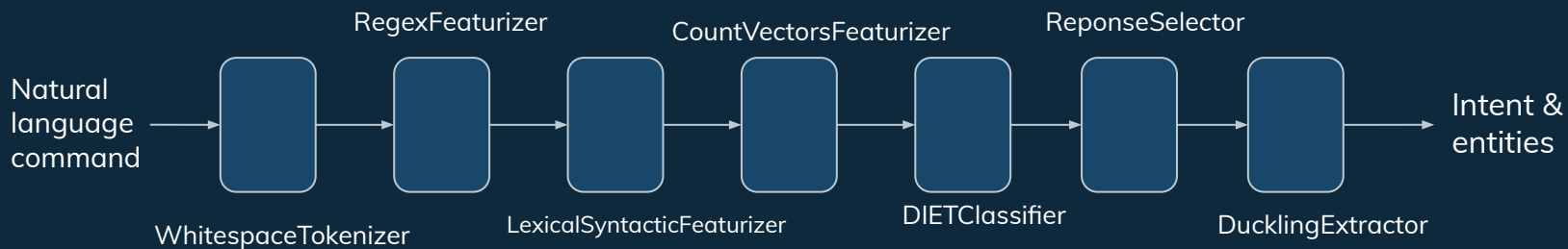


Google Compute Engine



NLP Architecture

Pipeline:





Entity Extraction

- intent: create_action_request

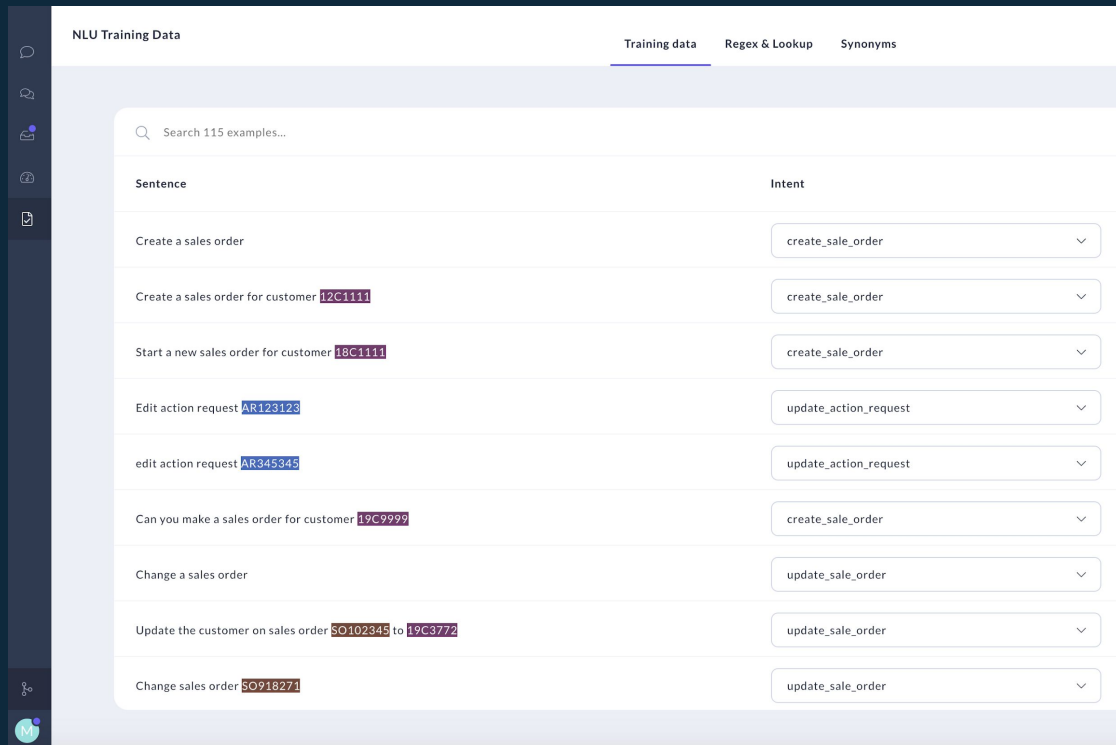
examples: |

- Create a new action request for [customer](contact_type) [10C1003](customer_id)
- Create action request for [customer](contact_type) [31C9239](customer_id)
- Create action request



Scalable Training

CI/CD with Rasa X:



The screenshot displays the 'NLU Training Data' interface in Rasa X. The page has a dark sidebar on the left with navigation icons. The main content area is titled 'NLU Training Data' and has three tabs: 'Training data' (selected), 'Regex & Lookup', and 'Synonyms'. A search bar at the top of the main area contains the text 'Search 115 examples...'. Below the search bar is a table with two columns: 'Sentence' and 'Intent'. The table lists ten training examples, each with a sentence and a dropdown menu for the intent. The sentences include various actions like 'Create a sales order', 'Start a new sales order for customer', 'Edit action request', and 'Change sales order', with some containing highlighted entity IDs.

Sentence	Intent
Create a sales order	create_sale_order
Create a sales order for customer 12C1111	create_sale_order
Start a new sales order for customer 18C1111	create_sale_order
Edit action request AR123123	update_action_request
edit action request AR345345	update_action_request
Can you make a sales order for customer 19C9999	create_sale_order
Change a sales order	update_sale_order
Update the customer on sales order SO102345 to 19C3772	update_sale_order
Change sales order SO918271	update_sale_order



Potential Improvements

#1. Scope of Information

At the moment, our assistant only supports only a select amount of commands.

#2. Accuracy

Training Data is not as fleshed out as it should be.

#3. Error Handling

The Assistant at the moment only responds with either the correct response or an error message.



Thanks!

Any questions?

