There are following segments:

1. NLP
2. Machine Learning model
3. Output
4. UI
5. Admin Console

**NLP:**

Dialogflow

Intents: Phrases used by the user

Entities: Keywords used by the user

**Machine Learning model:**

Multi variate Linear regression model

*Dataset:*

Initially it uses Pandas to fetch data from excel sheet data

Migrated to IBM Cloudant NoSQL DB

*Data processing:*

Imputer to remove empty data

Convert dialogflow output to dataset format

*Machine Learning model:*

Scikit learn linear regression

Model.fit

Model.predict

*Post Processing:*

Convert ML output into dialogflow speech json format

Send data to Cloudant DB to store input

*Flask webhook:*

Bundle entire model into REST webservice with flask

Deploy the python code into heroku

Provide herokuapp webhook url into dialogflow fulfillment

**Output:**

Fetch data from Cloudant DB

Render data into output html using djinja template

Pass data to generate MS word document using python-docx

Create a downloadable doc as attachment

Create a feedback system

Update feedback variable in output DB based on feedback

**Admin:**

Fetch data from Cloudant DB

Categorize data based on admin flag

Render into admin html

Create dataset approval/rejection events

Update admin flag in output DB based on approval event and move docs to input dataset

Reload page with updated values

**UI:**

1. HTML
2. CSS, Bootstrap
3. JS, AJAX, JQuery