

PHASE 1

Travel Booking Chatbot



AGENDA

01

OVERVIEW

02

METHODOLOGY

03

DEMONSTRATION

04

NEXT STEPS



OVERVIEW

01

Chat Product

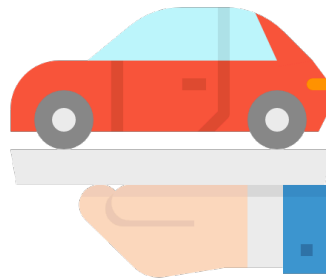
CoronaTravel wants to create a conversational product that allows users to query:



**FLIGHT
PRICES**



**HOTEL
BOOKINGS**



**CAR
RENTALS**

Project Plan

PHASE 1

PHASE 2



Create a POC model
that extracts information
from conversational text

Productionize model to an
instant messaging platform

02

METHODOLOGY



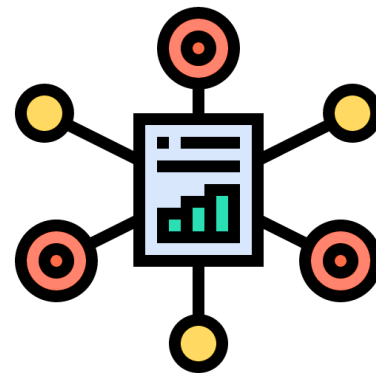
Development Process



DATA
EXTRACTION



PREPROCESSING



NER
MODEL

Data Extraction

Frames dataset

- JSON format
- 1369 conversations between two people
- Booking a vacation including flights and hotel
- Complex conversations – user considers different options and compare packages



Preprocessing

Steps	
1. Contractions	Pycontractions – 4 hours
2. Tokenization	Sentence, word
3. Punctuation	Removed all except \$
4. Lower case	Normalization
5. Stop word	Removed all
6. POS tagging	Identifies part of speech
7. Lemmatization	Convert word to its base form

NER Model

Applied our training data to spaCy's pretrained model

would like get away **monday august 15 2016 DATE** **wednesday DATE** **august 31 DATE** 2016 budget \$ **3200 MONEY** would leave **detroit GPE** anywhere
look adventure let u look please suggest destination available leave **detroit GPE** anything **august 15 august 31 DATE** thank help

GPE

- Countries, cities, states

DATE

- Absolute or relative dates or periods

MONEY

- Monetary values, including unit

A wide-angle photograph of a desert landscape with large, rolling sand dunes under a clear blue sky. A caravan of camels, each carrying a colorful saddlebag, is walking in a line across the dunes. Several people are walking alongside the camels, guiding them. The sand has a fine, rippled texture. A semi-transparent blue rectangle is overlaid on the upper left portion of the image.

DEMO

03

Demo



04

NEXT STEPS



Next Steps

- ① Connect model to travel API
- ② ChatterBot – automated responses
- ③ Deploy chatbot onto messaging platform



THANKS

