



Our team consists of five members. All are doing B Tech graduation at Muthoot Institute of Technology and Science.

The problem statement is to create a chatbot for an insurance company handling both health insurance and vehicle insurance. We were also asked to satisfy certain tasks.

We started our project using RASA and worked on it. We were able to train the models but we weren't able to establish the connectivity with slack.

```
C:\Windows\System32\cmd.exe - rasa shell
019-10-12 11:00:13      rasa.nlu.model - Starting to train component SpacyFeaturizer
019-10-12 11:00:13      rasa.nlu.model - Finished training component.
019-10-12 11:00:13      rasa.nlu.model - Starting to train component RegexFeaturizer
019-10-12 11:00:13      rasa.nlu.model - Finished training component.
019-10-12 11:00:13      rasa.nlu.model - Starting to train component CRFEntityExtractor
019-10-12 11:00:13      rasa.nlu.model - Finished training component.
019-10-12 11:00:13      rasa.nlu.model - Starting to train component EntitySynonymMapper
019-10-12 11:00:13      rasa.nlu.model - Finished training component.
019-10-12 11:00:13      rasa.nlu.model - Starting to train component SklearnIntentClassifier
fitting 2 folds for each of 6 candidates, totalling 12 fits
Parallel(n_jobs=1): Using backend SequentialBackend with 1 concurrent workers.
Parallel(n_jobs=1): Done 12 out of 12 | elapsed: 0.0s finished
C:\Users\Manu\AppData\Local\Programs\Python\Python36\lib\site-packages\sklearn\model_selection\_search.py:842: Deprecati
nWarning: The default of the 'iid' parameter will change from True to False in version 0.22 and will be removed in 0.24
. This will change numeric results when test-set sizes are unequal.
  DeprecationWarning)
019-10-12 11:00:14      rasa.nlu.model - Finished training component.
019-10-12 11:00:14      rasa.nlu.model - Successfully saved model into 'C:\Users\Manu\AppData\Local\Temp\tmp0fhczq
6\nlu'
NLU model training completed.
Your Rasa model is trained and saved at 'C:\Users\Manu\Desktop\abc\Full_Code_Latest\models\nlu-20191012-110014.tar.gz'.

C:\Users\Manu\Desktop\abc\Full_Code_Latest>rasa shell
C:\Users\Manu\AppData\Local\Programs\Python\Python36\lib\site-packages\tensorflow\python\framework\dtypes.py:516: Future
Warning: Passing (type, 1) or '1type' as a synonym of type is deprecated; in a future version of numpy, it will be under
stood as (type, (1,)) / '(1,)type'.
  _np_qint8 = np.dtype [("qint8", np.int8, 1)])
C:\Users\Manu\AppData\Local\Programs\Python\Python36\lib\site-packages\tensorflow\python\framework\dtypes.py:517: Future
Warning: Passing (type, 1) or '1type' as a synonym of type is deprecated; in a future version of numpy, it will be under
stood as (type, (1,)) / '(1,)type'.
```

```
 understood as (type, (1,)) / '(1,)type'.
  np_resource = np.dtype [("resource", np.ubyte, 1)])
019-10-12 11:00:42      absl - Entry Point [tensorflow.tensor2tensor.envs.tic_tac_toe_env:TicTacToeEnv] registered with id [T
Env-TicTacToeEnv-v0]
019-10-12 11:01:09      rasa.nlu.components - Added 'SpacyNLP' to component cache. Key 'SpacyNLP-en'.
NLU model loaded. Type a message and press enter to parse it.
Next message:
hi

{"intent": {
  "name": "greet",
  "confidence": 0.8078943021986627
},
"entities": [],
"intent_ranking": [
  {
    "name": "greet",
    "confidence": 0.8078943021986627
  },
  {
    "name": "inform",
    "confidence": 0.09939547801100211
  },
  {
    "name": "goodbye",
    "confidence": 0.09271021979033547
  }
],
"next_message": "hi"}
```

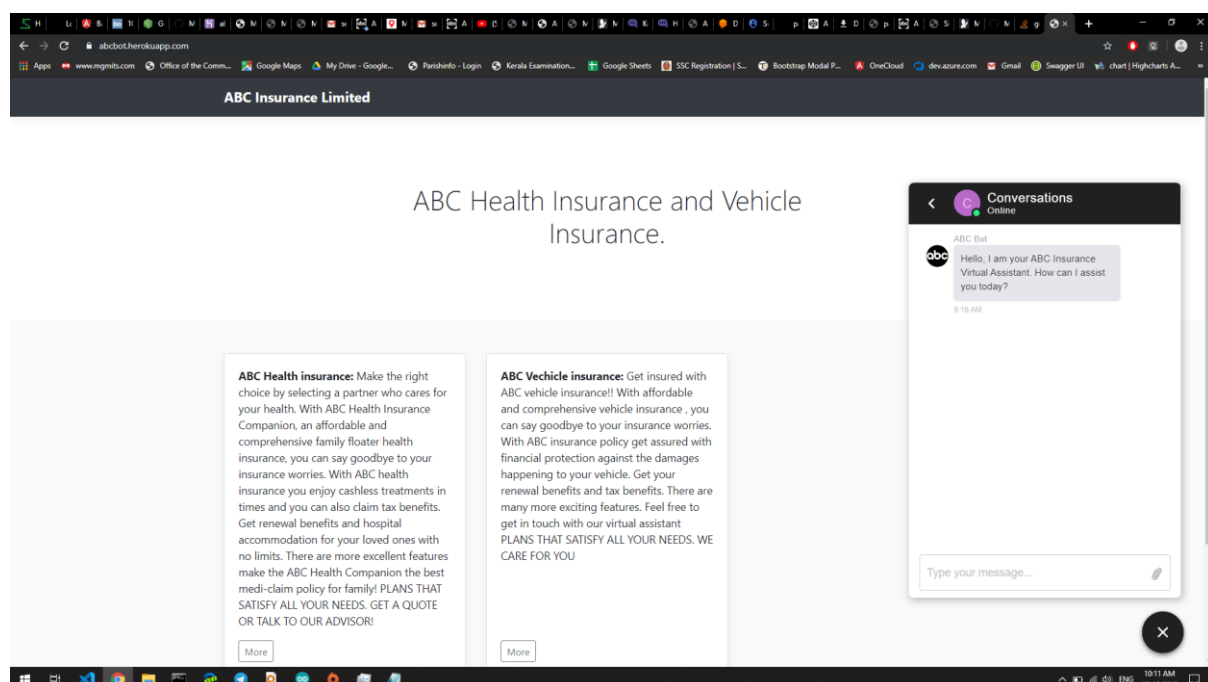
Because of lack of time, we decided to use the Dialog Flow platform to create the chatbot because it seems more familiar to us.

ABC bot is a web based bot that basically accepts both text and voice inputs from the user and returns the appropriate responses based on machine learning model.

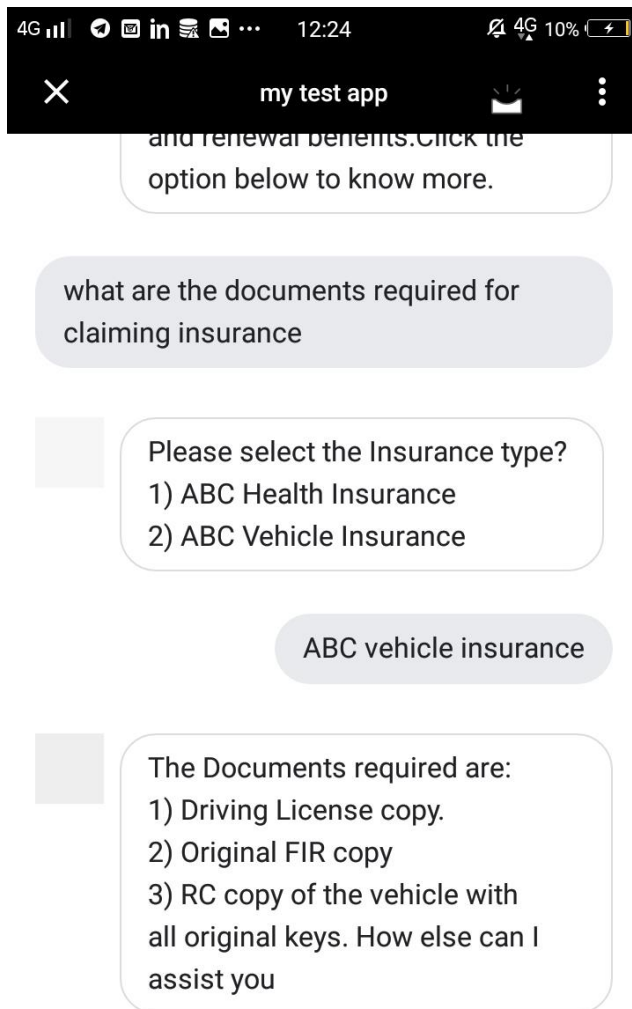
IMPLEMENTATION

- We basically created 24 different intents to determine the action by the code.
- Different training phrases were added to each of the intent to train the model.
- **Agent**, a module within dialogflow incorporates Natural Language Processing to understand what the user meant and to figure out what “action” has to be carried out.
- Entities were used to medical day care treatments and damage treatments.
- Different utterances were also given as responses.
- Contexts were used to represent the current state of a user’s request and allow your agent to carry information from one intent to another.
- Users can use either text based or voice based inputs.

This is the health insurance website with the chatbot.



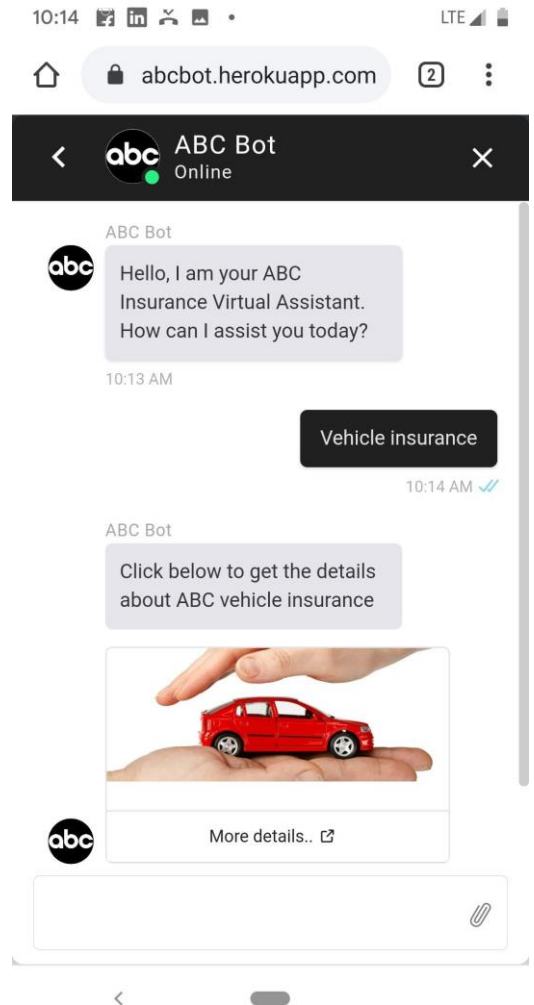
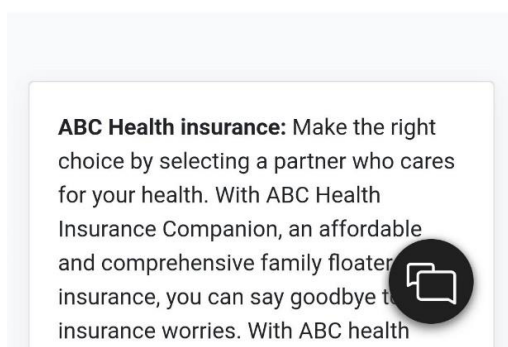
Features



Type a message



Insurance and
Vehicle
Insurance.



URL<https://localhost/abclogin/login.html>

1. We have suggestion clips to predict next query of the user.
2. We have provided link to the login page and updation page if user needs to do the same.
3. This is clearly classified for both health and vehicle insurance.
4. Correctly predicting and responding to the intents from the knowledge base
- 5.