

IBM CHAT BOT (Use Case 1)

By Team : WeAreExpensive

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Problem Statement Addressed :

IBM : IT Support Chatbot for an IT Support Manager which provides help to its various clients using IBM's product and services

Proposed Solution :

We plan to make a chatbot with high accuracy and with faster answer retrieval system . The chatbot would be able to do mathematical and graphical analysis of aggregate queries . It would also be capable to learn over a period of time using data collected through chatbot over the period of time . Possible additions would be answers to even speech based query . Apart from that , the chatbot would perform sentiment analysis by cognitive search and be able to distinguish trending tickets and problems .

Features Implemented & Progress till Now :

- Basic commands like simple sql queries .
-> Used Watson Conversation + Custom Heuristics to extract Sql query from natural language.
- Sentiment Analysis : Extracted comments from client name and ticket number . Performed sentiment analysis on the comments. Output : of the sentiment analysis of the form string such as "polite", "frustrated", "anger" etc. Classified the tones as neutral, +ve or -ve , hence deciding its sentiment.
-> Used Watson Tone Analyzer.

- Trend Analyzer : Calculated the overall sentimental analysis for a ticket and client.
-> Used Watson Tone Analyzer
- Integrated the Bot with slack.
- Graphical representation of the data.

Github link : <https://github.com/FundamentalEq/megathon>

Application of our solution

Our solution is basically aimed at IT Support Services . However , it can be extended to various other chatbot applications in the field of agriculture , classroom teachings , academic advisors etc based on same concepts but by tweaking parameters .

Need and feasibility

Lots of time is wasted in manually analysing certain data queries . These common data queries of IT Support Managers and Engineers can be used as common cache questions and be answered by chatbot . Apart from that , if the IT Support Engineer needs any data or analysis or time spent on a user , how good is the feedback service etc , he/she will be able to analyse the performance and improve their services accordingly .

Scaling up and Future Work

We plan to add more features to our current work and make the chatbot more robust . Possible uses of making better use of natural language processing and incorporating use of better learning capabilities . Possible implementations of predictive insights , integrating speech technology i.e text to speech and speech to text conversion . Possible insights about clients and their needs .

Do you wish to take it up as a startup ?

We are interested in working further and contributing to this project .