Project Development Phase
Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID53170
Project Name	Project - AI based Discourse for Banking Industry
Maximum Marks	10 Marks

Model Performance Testing:

- This AI-based project involves implementation of a Chatbot.
- Thus, conventional testing metrics may not be applicable and so the model has been tested using performance metrics specific for a Chatbot.

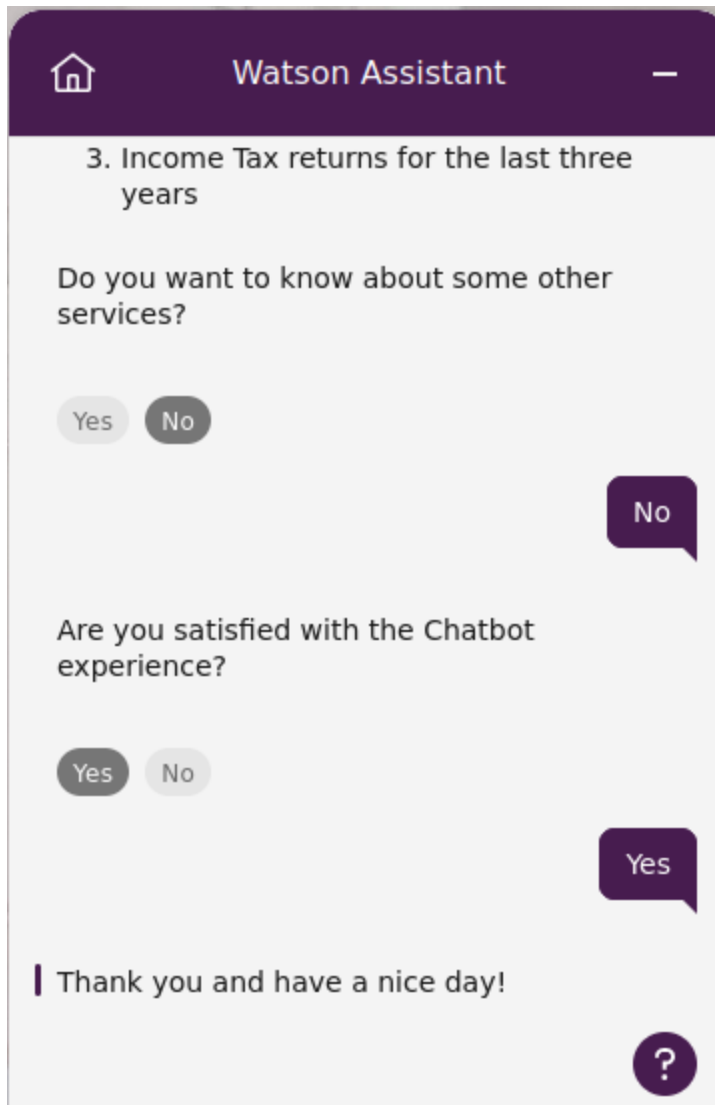| S.No.	Parameter	Values	Screenshot
1.	Model Summary	- The model is a Natural Language Proceeding model of the IBM Watson Assistant. - The goals that the user wants to achieve using the Chatbot are termed as "Actions" in Watson Assistant. The following Actions have been implemented (The Chatbot can answer limited number of queries pertaining to these actions): - Greetings - Current Account - Savings Account - Loan - Queries (general banking queries) - Netbanking	\<See below\>
2.	Performance Metrics	The following metrics have been used to analyze the performance of the Chatbot: CSAT (Customer Satisfaction) Score: The Chatbot was tested with 22 customers out of which 17 were satisfactory.	\<See below\>

		Therefore, CSAT Score = 81% ● Fallback Rate: A fallback is a case where the Chatbot is unable to understand the query of the user and gives a canned response designed by the developer (eg: "Apologies. I am unable to help you out with this. Please contact our customer support…). This number should be as low as possible. This was manually calculated to be 40%. (Automation of calculation of this metric will be done in the near future)	
3.	Confidence Score (Only Yolo Projects)	NA	NA

Screenshots
- Actions created

Name	Last edited	Examples Count	Status
Index	2 days ago	5	✔
Greetings	4 days ago	4	✔
Loan	8 days ago	4	✔
Sample	8 days ago	1	✔
Current Account	8 days ago	4	✔
Greetings	8 days ago	4	✔
Savings	10 days ago	1	✔
Net Banking	8 days ago	2	✔
Query	10 days ago	1	✔
End greeting	10 days ago	3	✔
End	a day ago	2	✔
Current Account	4 days ago	1	✔

- Feedback incorporation (to calculate CSAT Score)
    - Getting feedback from user

Watson Assistant

3. Income Tax returns for the last three years

Do you want to know about some other services?

Yes No

No

Are you satisfied with the Chatbot experience?

Yes No

Yes

| Thank you and have a nice day!

?

- ○ The user feedback is stored in a binary text file which can be read using a python script to obtain the CSAT score

```
(base) gokulakrishnan@gokulakrishnan-ThinkPad-E14:
ode$ python3 read_binary.py
Total Interactions = 22
Satifisfied = 18
CSAT = 0.8181818181818182
```

References
- ● https://www.kommunicate.io/blog/metrics-for-chatbot-analytics/