



Legal Statement & Credits

COMP0016 2022/2023 Team 12

NHS Auto-chatbot

Legal Statement, Data Privacy & Protection:

The Bot Application, i.e., NHS Auto-chatbot will not keep or expose any conversations that has been sent by users after the users finish using it. There will be no login or signup sections for users. The application is expected to be accessed by any legal citizens. All customer data is encrypted with two layers of encryption in IBM Watson Assistant.

NHS Auto-chatbot's source code is licensed under *Creative Commons Attribution-NonCommercial 4.0 International License* and all source code can be found on the following GitHub links:

<https://github.com/Zhiyu-Wang-2021/chatbot-view/tree/v1.0.0>

<https://github.com/Zhiyu-Wang-2021/chatbot-generator/tree/v1.0.0>

<https://github.com/Zhiyu-Wang-2021/BingAccessForWatson/tree/v1.0.0>

Licenses and Intellectual Property (Dependencies):

For the dependencies used for the project, which are Node.js ([License subject to dependencies](#)), Axios ([MIT License](#)), IBM Watson Assistant ([Apache-2.0 License](#)), Django ([BSD-3-Clause License](#)), React.js ([MIT License](#)), Scrapy ([BSD-3-Clause License](#)) and etc., all of them allows for commercial use, modification with changes stated and private use.

For the application development. we used the Microsoft's Azure services and APIs, IBM Watson products, and Bing API.

Here is the list of services that were used:

1. Cognitive Services for Language
2. Storage Account
3. Cosmos DB for MongoDB account
4. Data Factory (V2)
5. Virtual Network
6. Virtual Machine
7. Search Service
8. Function App
9. API Connection
10. App Service Plan
11. IBM Watson Assistant
12. IBM Natural Language Understanding
13. Bing Search API

No copyrighted resources such as images are used other than those stated above.

Sustainability and Costing

The client will need to pay for hosting our solution, where two paid azure services, one paid IBM product, and Bing Search API are utilised:

Service Name	Functionality	Service Tier	Cost (£/month)
IBM Watson Assistant	Deploy chatbot on the web	Plus	168
IBM Natural Language Understanding	Information retrieving (only used during the chatbot generation phase)	Free	0
Bing Search API	Answer general questions	S2	12
Azure Language Service	Improve answers from Bing API	S	5
Azure Functions	Connect our service, Bing API, and Watson Assistant	Consumption (Total Executions)	0
Total			£185 per month

The chatbot framework and the API functions can be reused for many purposes other than the application solely. In the statement were discussed the legacy and data privacy aspects of our project, as well as the sustainability of the application which will aid in further improvements of the application and benefit other developers.

Credits & Acknowledgement:

Systems developed by:

- Sultan Insan Geosrinov Muhammad Rifqi - sultan.rifqi.21@ucl.ac.uk
- Zhiyu Wang - zhiyu-wang.21@ucl.ac.uk
- Yunsheng Xu - yunsheng.xu.21@ucl.ac.uk

Clients – NHS England:

- James Parker (Automation & Innovation Manager at NHS SBS)
- Lucy Rose Hewitt (Senior Programme Manager at NHS England)

Supervisors and Teaching Assistant – University College London (UCL):

- Dr Yun Fu - yun.fu@ucl.ac.uk
- Yansong Liu – yansong.liu.18@ucl.ac.uk

References:

MIT LICENSE: "<https://opensource.org/licenses/MIT>"

Apache-2.0 license 2004: "<https://www.apache.org/licenses/LICENSE-2.0>"

BSD LICENSE 2014: "<https://www.oracle.com/downloads/licenses/bsd-license.html>"

Cloud Computing Services | Microsoft Azure: "<https://azure.microsoft.com/en-us/>"

IBM Watson assistant – pricing: "<https://www.ibm.com/products/watson-assistant/pricing>"

Pricing - search: Microsoft Azure: "<https://azure.microsoft.com/en-us/pricing/details/search/>"

Bing Search API Pricing: Microsoft Bing: "<https://www.microsoft.com/en-us/bing/apis/pricing>"