

# NET-A-PORTER

## **NAP – UCL Project Team 28 Customer Service Chatbot**

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Bi-Weekly Report #2  
10/2/2017

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### **Project Overview (27/1/2017 – 10/2/2017)**

In the past two weeks, we have made significant development. We furthered progress in creating our product recommendation intent by populating relevant entities by efficiently importing them from our client's database, making our chatbot much more maintainable by reducing manual input. Also, we made a draft of a back-end parser to process the JSON response from the Conversation service to extract values for intents and entities in order to make specific API calls that provide product results that matches user input.

### **Meetings Summary**

In our meetings, we focused on two points. The first is to provide updates to our current work and ensure that all members are on track to fulfil the deliverables by our internal deadlines. Secondly, as we have started to develop our chatbot, we discuss the problem areas that require coordination within our individual assigned tasks, such as the types and values of parameters that is passed from Watson Conversation to the application.

### **Tasks Completed**

- Exported "Brands", "Colours" and "Sizes" from API call to JSON files
- Wrote scripts to convert JSON files to CSV files
- Uploaded CSV files to populate above mentioned entities efficiently
- Set up Conversation workspace for our chatbot that provides service credentials for the front-end and back-end to test integration.
- Developed back-end parser to interpret Watson Conversation JSON response to extract intent and entity values

## Problems to be Resolved Before Next Meeting

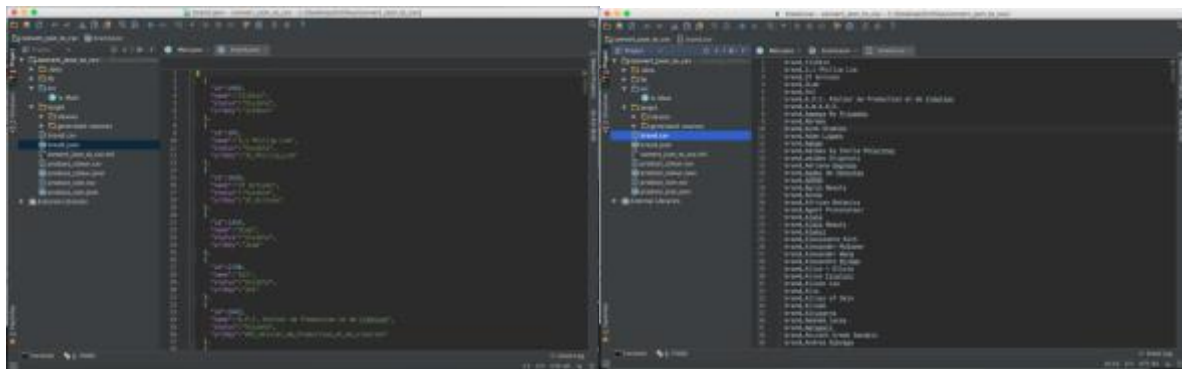
Mentioned in the previous report, we have still yet to receive a test account from our client that has populated user information such as purchase history. We have sent an email requesting for this account but have yet to receive a response. Our team will continue to contact our client to resolve this problem. However, this test account would not slow down our current development as we do not require user account details at this stage.

## Plan for Next Two Weeks

We plan to finish product recommendations by the end of reading week. We would have to include all the necessary entities in the workspace that fulfils the product recommendation intent. As product recommendations work very closely with the Listings and Designers (LAD) API from our client, a key goal of the Watson Conversation would be to correctly identify the category of product that the user is asking. We also faced the limitation of working with the specific structure of the JSON response from the LAD API, which will involve creating some workarounds to get accurate CategoryIDs. Also, as the chatbot only identify intents and entities by user input, the back-end would also need to extract the specific IDs from the name value from the Conversation response in order to filter products using our client's API.

## Contributions

Wayne Tsui



Converting a JSON file to a CSV file (example shown having 700+ brands from NET-A-PORTER)

I am in the charge of the IBM Watson Conversation workspace. My work in these two weeks include writing a Java programme to convert JSON files to specified CSV (Comma-Separated Value) files. The JSON files include our client's list of brands, product sizes and product colours. These CSV files can then be uploaded to the Conversation workspace to populate the entity values. This allows for a more efficient and maintainable process of developing our chatbot. If our client updates its database, changing the brands or product colours, then all we need to do get the new JSON information and convert it to another CSV file to modify our entities. This is especially useful as there are over 700 brands and 100 product colours and it would have been a very manual process.

Also, I created our actual chatbot workspace in IBM Bluemix and set up service credentials for our front-end and back-end to test application integration. I have also finished reading all the documentation regarding Watson Conversation. This is important as significant and useful features are constantly being introduced, as recent as 3<sup>rd</sup> Feb, such as marking input queries as irrelevant (did not match any intent).

During reading week, I will be focusing on developing the entity structure for product categories and the dialogs needed product recommendation. From there, application can call the service and supply text input to get information for API calls.

### Aouss Sbai

During the past 2 weeks, I have been in charge of developing the back-end of the chatbot. By backend, this currently involves writing the REST API calls needed to get information from our client's servers.

That is to say, I receive the JSON file from Watson Conversation. This JSON file is the result of the IBM's NLP. My job is then to parse this file, isolate the intents and entities, and make the relevant API call, using LAD (Net-A-Porter API). Eventually, I have to provide the result of the API call for the front-end to populate the user interface. Currently, the prototype is a JSON parser that can isolate the intents and entities, but the API calls need to be refined and integrated to the other parts of the chatbot.

### Jason In

For the past 2 weeks, I have been working purely on the front-end– HTML, CSS, AJAX. The front-end is going to work in the following way: The expected input of the chatbot is going to be in text format (which is what the user typed in). JSON file is expected to be returned from the server (respond to the question asked by the user). The JSON file will then be parsed into text and shown to the user. The front-end part is not yet done at the moment and I will get it done by end of reading week.