Team Name: The Czar.

Problem Statement title: Optimized Warehouse Management Web Application.

Role of Team members:

Name	College	Role
Samrat Chaudhuri	Cooch Behar Government Engineering College	i) Development of Machine Learning Model. ii) Development of Watson Assistant Chat bot. iii) Creation of interactive Dashboard. iv) Deployment of the aforesaid services on the Web Application, hosted on NODE RED platform.

Scope of work:
The scope of work includes the development of the folowing modules:

a) Machine Learning Module: After uploading the desired dataset, a machine learning model has to be built in order to achieve the primary goal of prediciton of the number of orders.

b) The Czar bot (Chat bot): The Czar bot lends a hand of assistance to the user through the setup skills, fuzzy logic, NLP and SP.

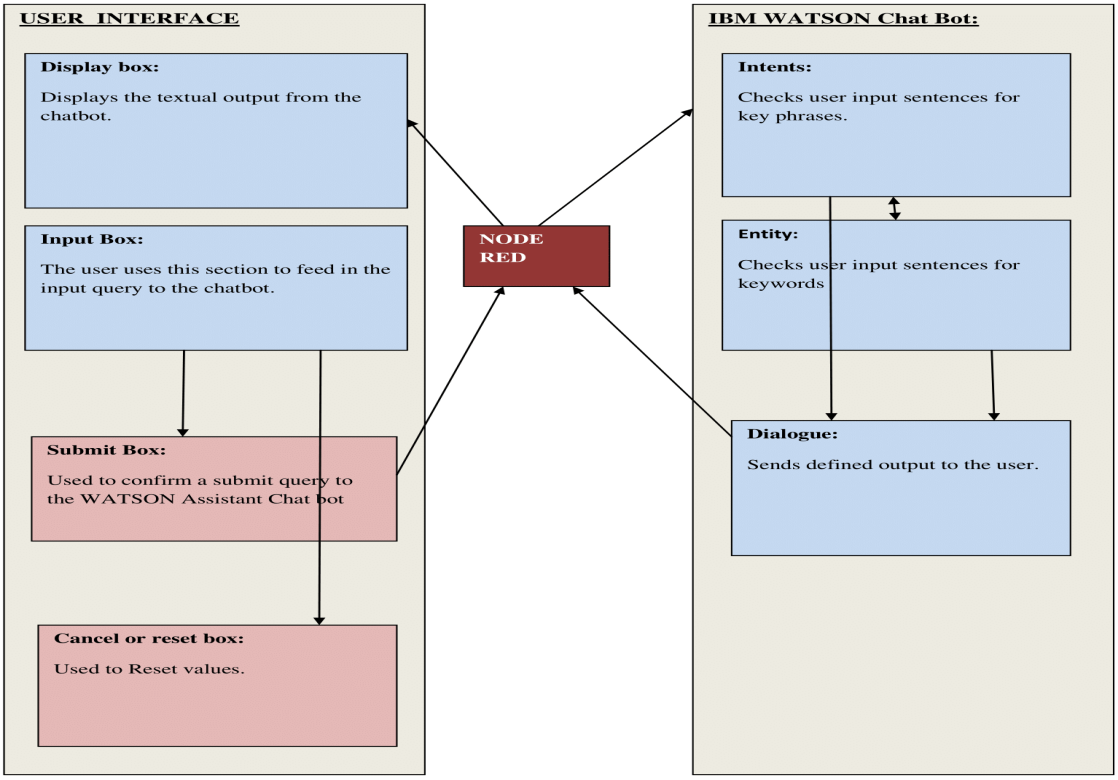
c) Dashboard: The interactive dashboard finally goes on to solidify the grasp of the user's knowledge on the aforesaid business through depiction of various dependencies in the form of graphs, tables and pie chart.

d) NODE RED flow: The visual flow editor platform of NODE RED helps host all the aforementioned services in the form of a Web App, along with HTML , JS and CSS stylings.

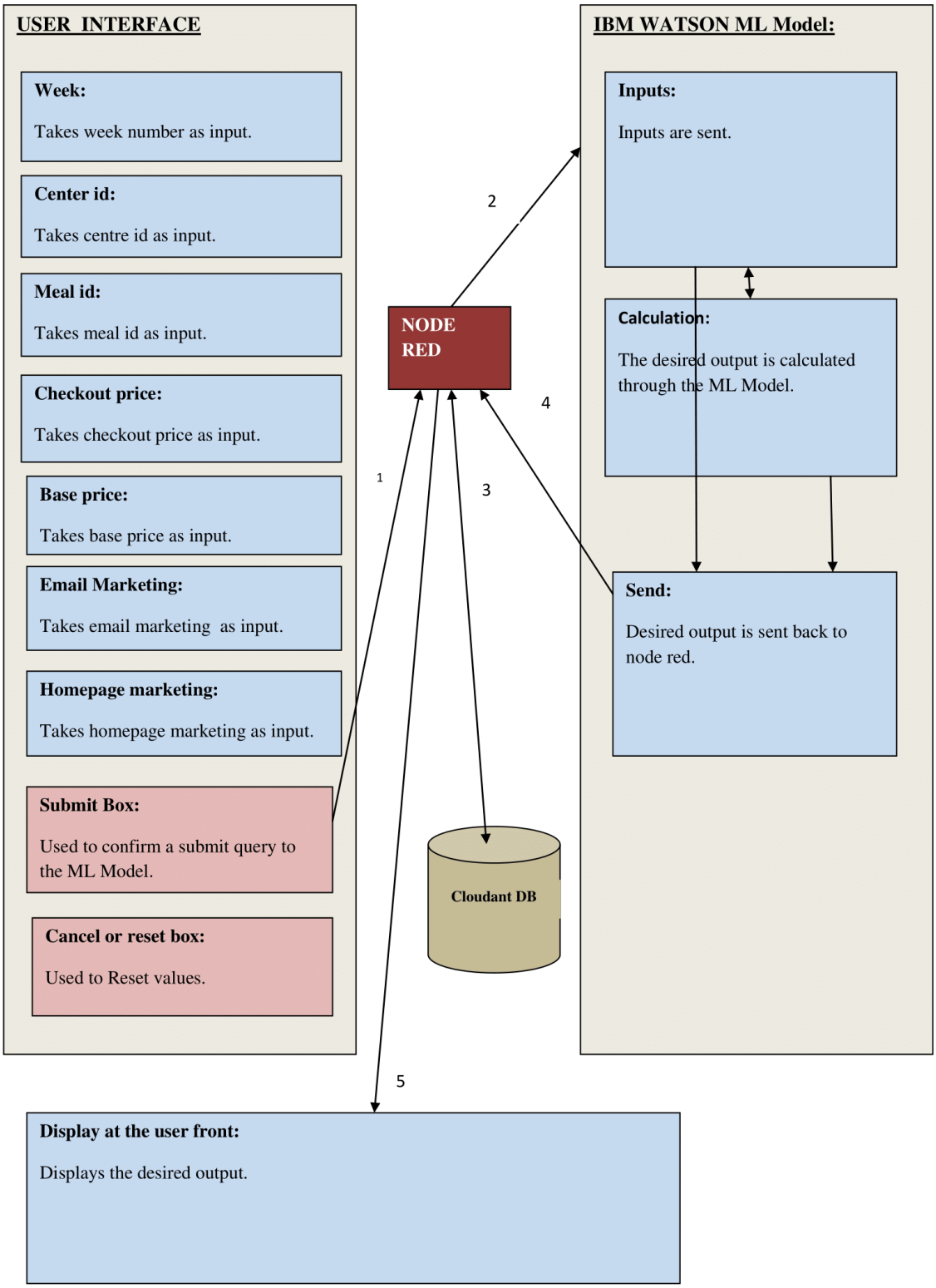
Technology Stack in use:

a) Programming Language:
Python, Javascript, HTML, CSS
b) Database:
Cloudant DB
c) Hosting Server:
IBM Cloud
d) Server type:
REST
e) Algorithms used:
Random Forest Regressor, NLP, FL, SP.

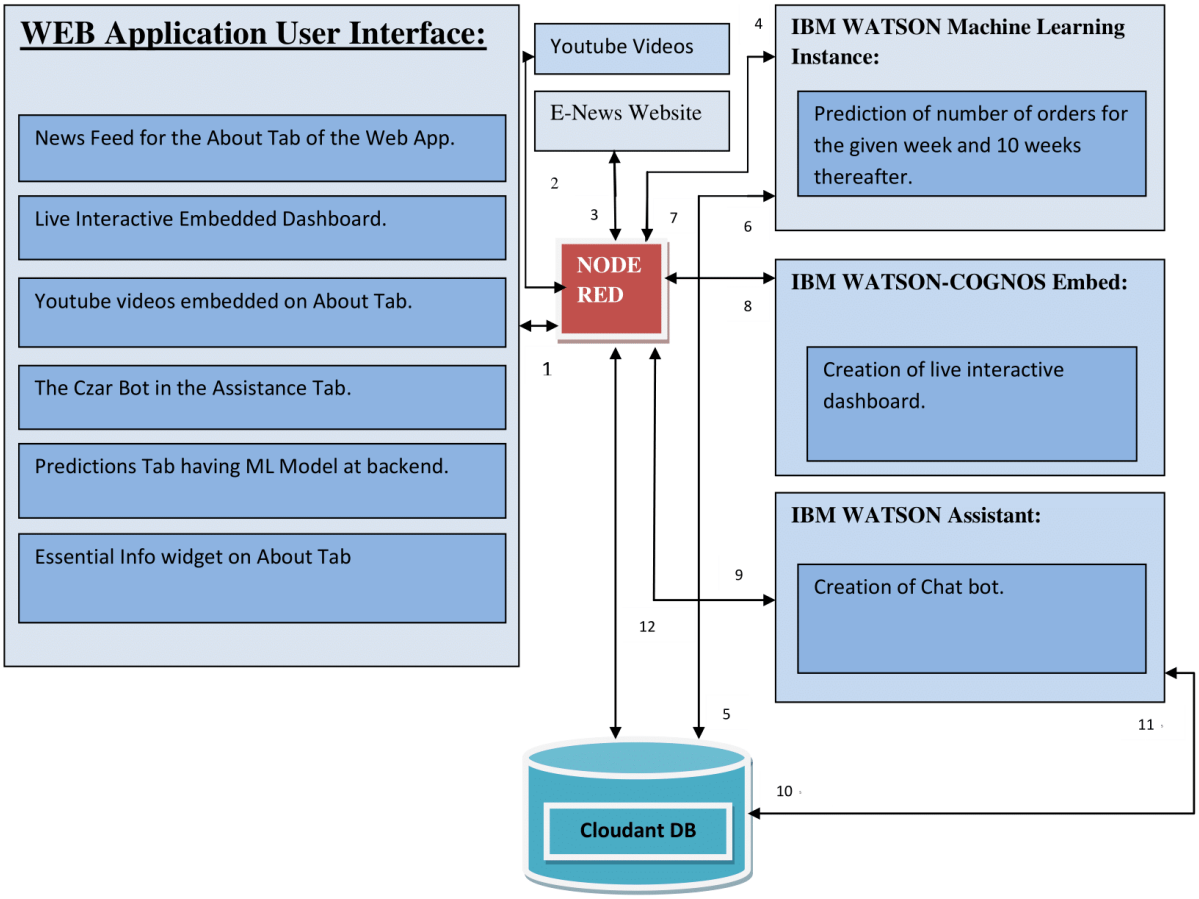
Architecture of the Czar bot:



Architecture of the Machine Learning Model:



Architecture of the Final proposed solution:



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1. Sending Requests from User Interface to the NODE RED Flow, using input options.
2. Youtube Videos iframe Sources for embedding the videos in Web APP.
3. News feed iframe Sources for embedding the news articles in Web APP.
4. Sending essential data to the Machine Learning instance in the backend to get the desired output.
5. Computing, storing and retrieving data from Cloudant Database.
6. Sending the results back to the ML instance.
7. Sending the outputs to NODE RED flows for display using REST APIs.
8. Embedded Dashboard displayed through shareable preview link.
9. Input to The Czar bot (Chat bot) through the input options.
10. Sending query to Cloudant Database for fetching the required data for analysis and output.
11. Data sent to IBM Assistant Chat bot.
12. Computation and sending data to NODE RED flow for display using REST APIs.