Original Equipment Manufacturer (OEM) Supply Chain Visibility Dashboard

Overview

The OEM Supply Chain Visibility Dashboard incorporate a comprehensive framework of supply chain data analysis, result visualization and supply chain decision making enhancement. This version of the dashboard uses a dummy dataset to demonstrate all the functions and capabilities. However, the performance is compromised compared to using the original dataset provided by OEM. To get the same performance, please refer to our paper [1].

Installation

1. First install docker, following the instruction here: (https://docs.docker.com/install/linux/docker-ce/ubuntu). Please choose the right one for your OS.
2. Install docker-compose. (https://docs.docker.com/compose/install/)
3. Unzip the file and go to docker folder. There are 5 files, where Dockerfile and sql_docker are responsible for pulling the docker images, env files are for environment variables or credentials. Docker-compose.yml defines the rule of how the dockers behave. (https://docs.docker.com/compose/)
4. There are two containers, one is the MySQL server and another one is the shiny server. If you have your own databases, then you can disregard the MySQL server part.
5. In order to make it to work on your machine, you need to configure the docker-compose.yml file. You will need to map your folder to the container and also map the port so it can be accessible. 80:8787 maps the rstudio server and you can delete this if you don't need it. 443:3838 maps the shiny server.
6. After configuration, build the docker by using the following commands:
    a. docker-compose build
    b. docker-compose up -d
7. If the docker doesn't start, type docker logs –details NAMES to see the log.
8. You also need to configure the host and port in global.R in order to connect to the MySQL server.
9. To access the server, simply type http://your-ip-address:443/OEMdashboard/ in your browser and you are good to go.

Reference:

[1] J. Liu, S. Hwang, W. Yund, L. N. Boyle, and A. G. Banerjee. Predicting Purchase Orders Delivery Times using Regression Models with Dimension Reduction. In *Proceedings of ASME Computers & Information in Engineering Conference (CIE), Quebec City, QC, Canada, 2018.*