User Manual

Production Scheduling System

March 2019

Contents

1 Introduction

The Production Scheduling System is an application that increase the efficiency and reduce the time cost of Tulkoff product line scheduling. The program takes the csv files of cases needed report and product listing as inputs, and outputs an downloadable efficient schedule for the production lines.

2 Installation

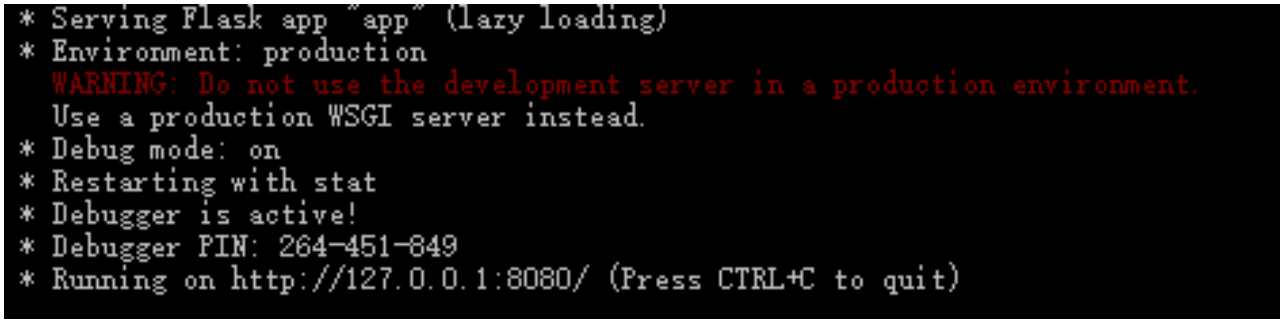
To install and run the program locally, first you should download the latest version of python 3 from https://www.python.org/downloads/. If you care about avoiding dependency conflicts, you can look into https://python-guide-cn.readthedocs.io/en/latest/dev/virtualenvs.html for virtualenv.

Open a command window. To open a command prompt in a specific location, you can press and hold the Shift key, then right click or press and hold on a folder or drive that you want to open the command prompt at that location for, and click/tap on "Open Command Prompt Here" option. Enter python command in command prompt. If the command is not recognized, then we need to set the environment variables. Rightclick on "This PC" and select properties. Click on "Advanced system settings", then click "Enviroment Variables". A new window will pop up. Under "System variables", Find the PATH variable and click Edit. Add Python to this PATH variable by adding the location where python is installed to the end of that string. For example it could be "C:\Program Files\Python37". If you are not sure about the location, you can search for the location of python.exe. The location of python.exe is the path to Python.

Then we can use python to run the program. Direct to the project folder and open a command prompt. Then enter the command lines:

```
cd backend
pip3 install -r requirements.txt
```

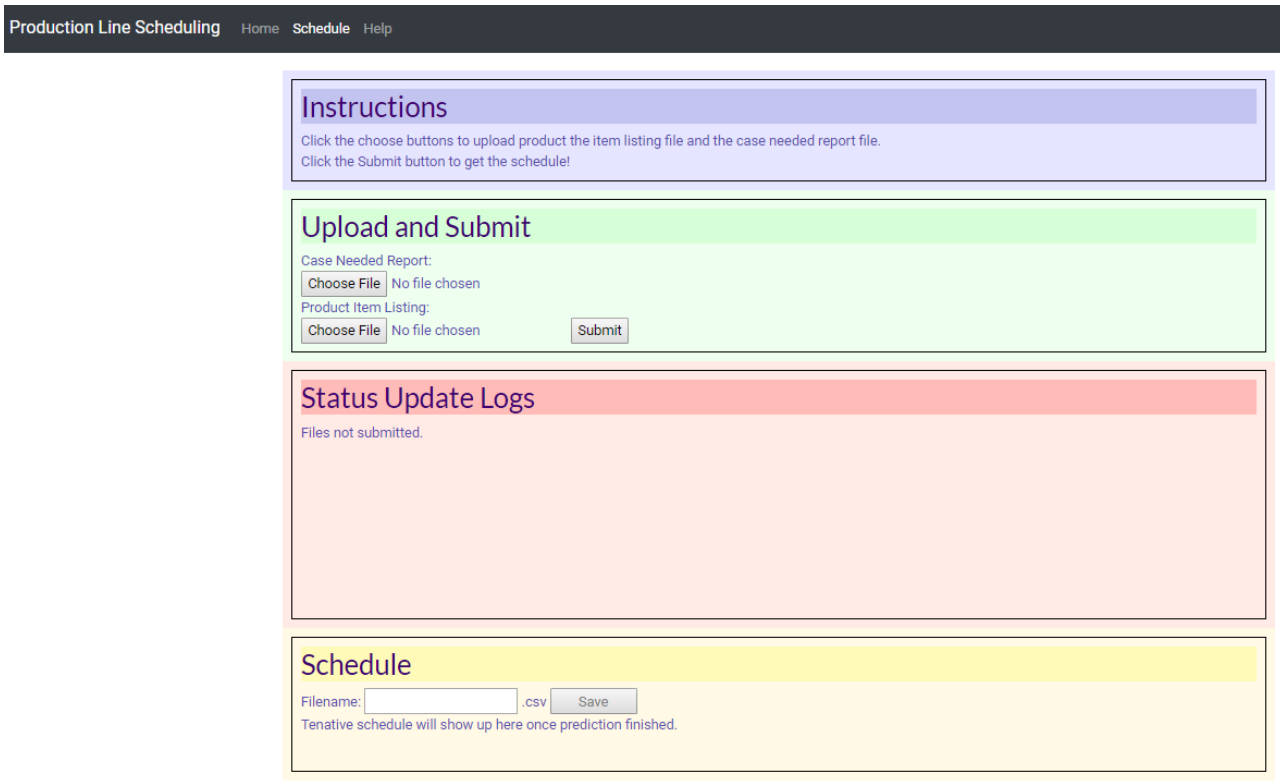
After downloading the required packages, direct to the backend folder and double click on run.bat. The command prompt will display message as shown below.



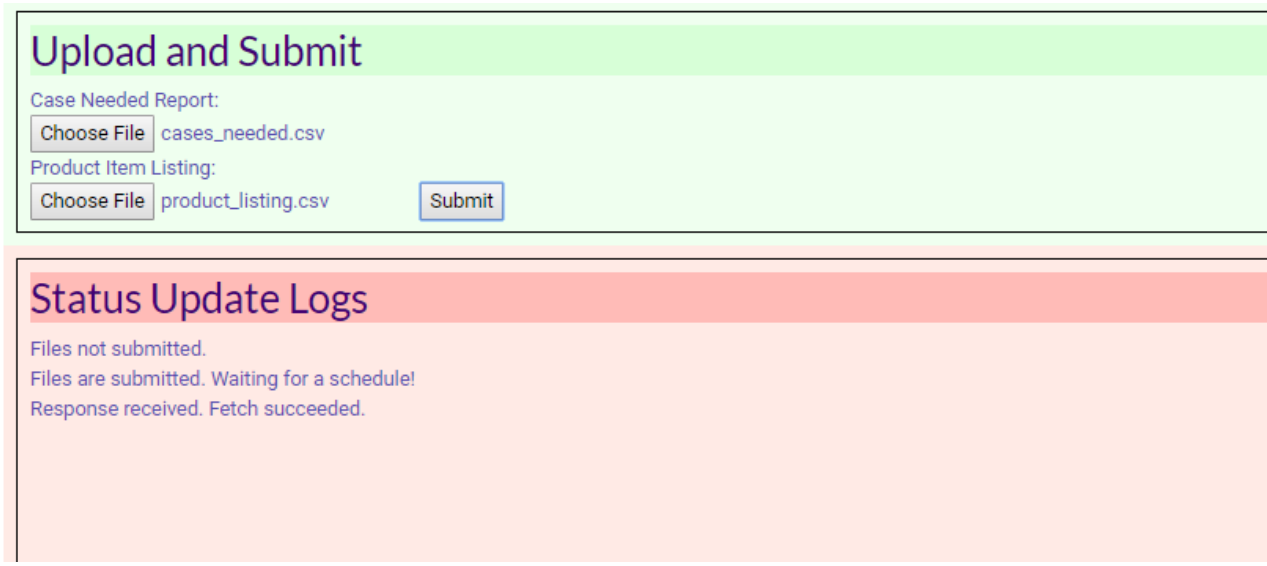
Once the server is running, direct to the frontend folder and click on home.html to run the web app.

3 System Features

To run the program, click on the Schedule tab at top. The screen displays as shown below.



In the Upload and Submit section, you can upload the required files as csv form. After uploading files, click submit. The process information will show in the Status Update Logs section. If the process is successful, it will display message as shown below.



After the program outputs the optimized schedule, you can download the schedule as a csv file in the Schedule section.