Group 21’s Distribution Implementation Plan

* In order to plan how we would go about in order to distribute our web application we plan on using Docker to contain the web application and with the app contained in its own container we can then distribute the application so that it can run on multiple different machines at the same time.

Files that would need to be added:

* Dockerfile
  + Contains all the commands that an user could call on the command line to assemble an image.
* Requirements.txt
  + This text file would have all the libraries that are needed to run the application in order for pip to install them from a command in the Dockerfile
  + In order to get the libraries that should be inside of this text file we will use the command pip freeze > requirements.txt in the terminal in pycharm so it gets all the libraries in that environment.

Steps to take:

* First, the code surrounding the sql queries for adding, deleting, or updating entries in the tables would be updated to make use of the START TRANSACTION command which will allow a transaction to remain open until committed.
* SELECT … FOR UPDATE would then be used for locking purposes in the sql queries for adding, deleting, or updating entries.
* Install docker cli in the machine that has the project
* Open a command line prompt in the folder that has the app.py
* Run docker init in order to create the files required to make the container
* Run docker compose –build in order to build the docker image
* Afterwards the image created can be run with the command docker run

Resources that explain how to do this:

* https://docs.docker.com/reference/