

# Python Tech Challenge

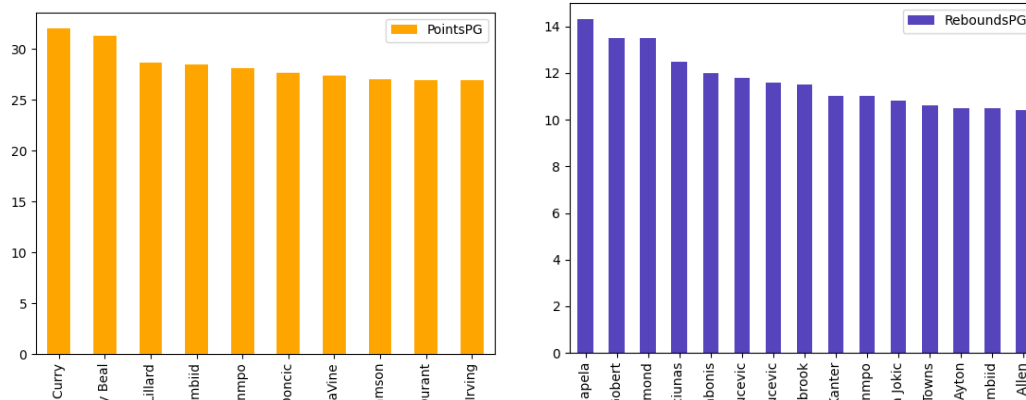
Challenge: Create a Dockerized Python Web Application that shows graphs of NBA player statistics.

Acceptance Criteria:

1. The application should be deployable in any host that has a Docker Engine or equivalent
2. Deployment should be done by executing a single **docker-compose** command
3. The source data of the player statistics is a CSV file that will be provided herein
4. The application should be reachable by typing a URI on a standard browser, i.e. [http://ip\\_address\\_or\\_domain:port/nbastats](http://ip_address_or_domain:port/nbastats)
5. The home page should show a list of statistics that can be displayed as below:

The form contains three sections: 'Statistic to Display' with a list of statistics (Points per Game, Assists per Game, Rebounds per Game, Steals per Game, Minutes per Game), 'Limit' with a list of values (5, 10, 15, 20, 25), and 'Arrange' with radio buttons for 'Ascending' and 'Descending'. A 'SUBMIT' button is at the bottom.

6. On selection of the desired parameters, output would be a page showing the appropriate graph generated dynamically from the provided inputs, as in the sample below:



7. Acceptable web frameworks include Flask, FastAPI, Django and other similar well-known Python products. Other libraries that can be used include Pandas, Matplotlib and similar
8. Docker image that MUST be for the python app is **python 3.9.5-slim-buster**
9. Final artifact should be a zip file containing application codes, relevant Dockerfiles (if needed) and the deployment docker-compose.yml file
10. After submission, product will be deployed in a Macbook Pro or Windows laptop with Docker Engine by executing a single **docker-compose up -d** on the folder containing the docker-compose.yml file