IndySCC24 Hero HPL Run

Problem statement:

Run HPL on up to 30 VMs (32 cores each) on the Jetstream2 cloud platform and submit the HPL score(s). Teams will be evaluated based on the top HPL score they achieve and the quality of their report.

Submission instructions:

For this assignment you will need to submit:

- 1. A detailed report including the following sections: (40 points)
 - a. Cluster description
 - b. Software stack description
 - c. HPL tuning steps
 - d. Challenges faced
 - e. Hero HPL results:

You must include a plot with at least the following data points. Best HPL scores with 1, 4, 8, and your largest run (30 VMs), and the best of any other intermediate sizes you are able to complete.

f. Discussion:

Compare with single-node run. How is your scaling efficiency? What did you learn from this exercise?

- 2. Submit your scripts, HPL.dat files, and full output files for the final runs. You will be graded based on the quality of your codes, documentation, and the optimized HPL score with the largest number of nodes (max 30 VMs). (60 points)
 - a. Scripts, HPL.dat files, and full output files for each of your best runs should be submitted to Google classroom within 1 hour after the end of your assigned 23 hour window (preferably as a tar or zip file).

b. Your report is due within 48 hours of the end of your window.