

Assignment 4

Profile one of the following options (already discussed in class a few times) using any profiling/tracing tools (TAU, HPCToolkit, IPM, mpiP,).

- (i) Parmetis-4.0.3 (<http://glaros.dtc.umn.edu/gkhome/metis/parmetis/overview>)
- (ii) Any 2 codes in the NAS Parallel Benchmarks (<https://www.nas.nasa.gov/publications/npb.html>)

- 4.1 Prepare a report on profiling/tracing either (i) or (ii). You may include snapshots but no profile or trace logs. Explain your methodology and observations. (30 marks)
- 4.2 Suggest improvements to the code based on your profiling results. (25 marks)
- 4.3 Modify the code to improve its performance – i.e. implement one or more of your suggestions and report the results. (45 marks)

Due date: April 22, 2019.

Hard deadline on April 24, 2019.

Upload 4.1 – 4.3 in your git repo under Assignment4 by the due date. Have all your reports, code, readme etc. in your repo. You are required to explain to me your Assignment-4 on the day of your final project presentation after all the presentations are done on that day.