Parallel Programming Final Project

One of the group members should submit the presentation slides and a short summary document. You have only 7-8 minutes for the presentation, and 5-7 minutes for questions.

The short document (1-2 pages) should contain the following:

1. Very short description of the application/algorithm to be parallelized and why.
2. List of the latest articles working on it (min 2).
3. Indicate the levels of parallelism exploited in your work, for example:
    a. Data-level parallelism
    b. Task-level
    c. Loop-level, …
4. Indicate the parallel techniques used to create the parallel implementation.
5. The MPI/OpenMP/Cuda C constructs used to create your parallel program.
6. Table that contains the results of each implementation (indicate in the table as a column the number of threads, processes, …)
7. Brief conclusion
8. Link for your code
9. The work distribution between group members

Bring a printed copy of this document with you to be submitted before your presentation.

The project is graded based on the following:

- 20% for the parallel techniques.
- 20% for each of MPI/OpenMP/ Cuda C implementation based on the proper usage of the constructs.
- 20% on the results and discussion
- The questions grade are included in the above percentages. The questions will be like:
    - Why you didn't use this x parallel technique.
    - How do you ensure sync, balancing, ….
    - What do you think the reason for some limitation?
    - Did you tried to exploit different level of parallelism?
    - Why your implementation is or is not scaling
    - Run the code
    - What do you think might be the problem in your implementation or how you can improve your work
    - Did you tried to compare with previous works (not required but you should)
    - And many more…..

Good Luck