**Guidelines for Grading Projects and Report Structure/Format to Students**

**GENERAL RUBRIC**

The guidelines for grading the project are as follows:

. Cover page that lists the name(s) of all members in the group, course#, section#, and semester of offering) (0 pts, but must be provided for grading)

1. A 100-150-word *Abstract* and 1-2-page overall *Introduction* to the Report. (5pts)
2. Discussion on Design Approach, including block-diagrams or software architecture of the simulator.

(5 pts)

1. Discussion on *Implementation Modules*, including snippets of significant sections of code and the

‘experimental’ design (different permutations of runs of the simulation). (25 pts)

1. Discussion on the *Simulation* itself, including *selected* screenshots of the simulation runs that show the actual execution(s) of the simulator. (20 points)
2. Discussion of *Tabulated Data* from the simulation results and the corresponding graphs that highlight the correlation among the various metrics listed in the Project Specs. (20pts).
3. *Conclusions* / Summary of findings. (5 pts)
4. *Demonstration* (20 points) -- (A 3-5-minute audio-video capture of a demo of the simulator, showing the compilation phase and the runs for all the permutations/scenarios, submitted as ONE .mp4 file along with the Final Report.)

**Notes:**

**The Progress Report of Part 1, and the Final Report of Part 2, content must be structured and have sections organized according to the IEEE-style and have the sections/subsections titled by the seven items listed above. (See a sample of the IEEE-style format in the PROJECT module.)**

**ADDENDUM to the MP4 Specs**:

Follow the instructions below as you develop/record the 3-5-minute AV .mp4 demonstration of your project:

* 1. Start with an ‘introduction’ – the overall goal of what you did, and the names of the members in your group.
  2. Next, go over the ‘software architecture’ on which you based the simulation and will also appear in the Design section of your [Final/Part2] Report
  3. Walkthrough each program ‘module/class’, describing its functions, highlighting areas of ‘relevant/significant’ changes. The highlighting must include the following: i) where the

‘client’ code generated the matrix elements and sent them to the ‘server-side’; ii) where the Strassens’ algorithm was integrated/invoked; iii) where, syntactically, the ‘threading/core’ task distribution occurred; and iv) where the timing data values were captured into a datafile.

* 1. After the walkthrough, capture the step that shows the ‘successful’ compilation of your ‘system’ modules, yielding the binary/simulator code. Verify this step by a listing of the ‘folder/directory’ on your drive, with the date of compilation/creation of this file.

* 1. Now, run the ‘simulator’ and capture: a) a show of how the ‘client’ node generates the Matrix elements (rows or columns) and sends them to the ‘server-side’; b) a show of how the ‘server-side’ assembles the elements into pairs of the Matrices prior to the ‘parallel/threaded’ execution(s). NOTE: Samples of screenshots of the matrixmultiplication products must be included in the Part2 Report. [*NOTE: If the NxN matrix is too large to ‘show’, test your simulator for correctness with much smaller size matrices as proof of concept and capture that. E.g., use 8x8 or 16x16 pairs, using a few cores/threads to verify this step, first. Then switch to using the larger matrix sizes given in the Part2 specs*.] Then, continue.
  2. At the end, simply list the timing data of three (3) major Tables: parallel execution, speedup and efficiency of the performance metrics, which would eventually be in the Part2 Report. *Do show or capture the listing while running the simulator*.
  3. Conclude the capturing of the demonstration with some remarks about your observations.
  4. Save the ‘screen-capture’ into an .mp4 file and add to your submission of Part2 of the project.

**NOTES:**

* 1. **Although, a 3-5 minute .mp4 file will be an ideal size, yet, if the eight (8) steps of the MP4 specs take a little more time, no points will be lost. And note that all 8 steps must be captured while running the simulator.**
  2. **A single submission of project Part2 is expected from each group. All the files *could* be zipped, preferably, into a single .z or .zip file. (No .rar files.)**

**//Bobbie**