Lab 2

Sparse Matrix Multiplication (Serial and OpenMP Implementation)

1. Starting with the stub code provided, implement the `sparsematmult_sparse_sparse_serial` and `sparsematmult_sparse_sparse_parallel` functions and all necessary methods in `csr_t` to properly execute this function.

Deliverable: Provide *sparsematmult.cpp* which implements the requested functions. Capture the output of `valgrind` applied to your program when complied with `-g` and using the flags `--leak-check=full --show-reachable=yes` for a test case using small matrices with < 100 rows and columns.

2. Use the `cmp` queue on the HPC to execute the same experiments as requested in program 2, except with all sizes divided by 10. See `job.sh` as an example for your Slurm job execution. Create a graph showing the speedup of your parallel code vs. the serial execution.

Deliverable: Provide a `zip` file with the logs of your experiments, the python notebook or script you wrote to parse the experiment logs, and a `png` image of the speedup graph.