SPEC

February 20, 2020

1 SPEC benchmark

In this optional assignment, you are to run the SPEC-2017 benchmarks for 64-bit `gcc` and `clang` compilers and report the runtime of each of benchmarks. SPEC benchmarks are used to measure the performance of a CPU. These benchmarks spend most of the time in user-space and are compute-intensive (no device I/O).

You have to generate results for the input of `ref` size (search –size in `https://www.spec.org/cpu2017/Docs/runcpu.html`). The results should be generated for all benchmarks in `SPECrate Integer` and `SPECrate Floating Point` suits (see `https://www.spec.org/cpu2017/Docs/overview.html#suites`).

You can download the ISO file for SPEC-2017 benchmarks by running:
"`scp aos@192.168.1.161:cpu2017-1_0_5.iso .`''.
The password is `aos`.

You can refer to the SPEC webpage (`https://www.spec.org/cpu2017/`) for more information regarding SPEC-2017.

2 Report

You have to submit a report that contains the following information:

- All the steps (including commands), you followed to run these benchmarks.
- A table that includes the runtime (in seconds) of all the benchmarks in the `SPECrate Integer` suit for both `gcc` and `clang`.
- A table that includes the runtime (in seconds) of all benchmarks in the `SPECrate Floating Points` suit for both `gcc` and `clang`.
- During the demo, you may have to follow the steps in your report to reproduce the results. Make sure that we don't have to refer to any other document except your report to reproduce the results.

3 How to submit.

To be done individually. Submit your report (in pdf format) at backpack.