Branch Prediction Championship CSE6421

Setting Up the Simulation Infrastructure:

1. Download the BPC kit:

   bpc6421.zip (~500M) and save it in your home directory.

2. Unpack the kit:

   ```
   gunzip bpc6421.zip
   cd bpc6421
   ```

3. There should be four directories: sim, scripts, traces, and results

4. The sim directory contains the simulator.


   ```
   cd sim
   make
   ```



   ```
   ./predictor ../traces/SHORT-INT-1.cbp4.gz
   ```

5. The scripts directory contains scripts that can help you run your predictor for all traces. Check out the doit.sh file in the scripts directory.

   ```
   cd ../scripts
   ./doit.sh
   ```

*Courtesy of Moinuddin Qureshi, Georgia Tech.

6. We will use the AMEAN over all traces as the figure of merit. You can compute this using the getdata.pl script. Usage is as follows.

   ```
   ./getdata.pl -d ../results/GSHARE*
   ```

7. The traces directory contains 20 traces: 10 short traces (~30 million instructions) derived from CBP-1 and 10 long traces(~150 million instructions) derived from SPEC 2006.

Writing Your Own Branch Predictor:

In your sim directory, there are two files you can modify: **predictor.cc** and **predictor.h**

Only these two files should be submitted with your contest submission. Any changes you make to any other files will not be reflected in our simulator.