**Branch Predictor**

In this project, you will implement the simulator of a tournament branch predictor and execute it with various parameters on a program trace. Your goal is to find out the prediction accuracy for various combinations of predictor parameters.

The following parameters should be considered:

* Total amount of storage used for predictors (4/16/64/256/1024/4096Kbits). The global predictor and 2-level local predictor should share the storage evenly.
* Number of bits per predictor (2/3).
* Length of tracked branch history (2/4/8). Use the same number for both the global and local predictor.

The format of each line in the trace files is as follow:

Instruction # : PC (in Hex) : Instruction type : Execution

You only need to consider instruction type of 'B' (branches), for which 'Execution' is 0 (not taken) or 1 (taken).

The following items should be included in your submission in a single zipped file:

1. Source code
2. A readme file with instructions to compile and execute your program
3. A document that presents prediction accuracy for the parameter combinations. Figures are expected.

**Due: November 6th, 5PM.**

Trace files:

* [Small trace for test (4.4K)](http://www.networks.howard.edu/lij/courses/2015/510/trace.small)
* [Large trace for full study (11M)](http://www.networks.howard.edu/lij/courses/2015/510/trace.big)