CS203 Fall 2016
Lab 2
Documentation how to compile and run my code

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I have implemented from scratch a Java based branch predictor simulator (Branchism). Also added support in the simulator for any given value of m (less than 16), and any number of LSBs (max 16) from the PC to index into the BHT.

The (m,n) predictor branch simulator takes 4 following values as command line arguments.

1. filename (For eg: gcc-10K.txt or gcc-8M.txt)
2. m value in (m,n) predictor **//Can be any value**
3. n value in (m,n) predictor
4. d is the number of bits of the PC to index into the branch history table (BHT) **//Extra Credit part**

For e.g 1:
If it is a (4,2) predictor and 6 bits of PC from gcc-10K.txt are to be indexed into the Branch History Table,
filename- gcc-10K.txt
m- 4
n- 2
d- 6
Branchism\src>java Branchism.BranchPredict gcc-10k.txt 4 2 6

For e.g 2:
If it is a (4,1) predictor and 8 bits of PC from gcc-8M.txt are to be indexed into the Branch History Table,
filename- gcc-8M.txt
m- 4
n- 1
d- 8
Branchism\src>java Branchism.BranchPredict gcc-8M.txt 4 1 8

The (m,n) predictor branch simulator takes the above values as command line arguments and prints the number of times the (m,n) predictor predicts a miss (In other words, the predictor predicts wrong)

Run my project:

1.Go to command prompt.

2.**Compilation**:

Go to Branchism\src in the "Branchism" folder submitted.

Branchism\src>**javac Branchism\BranchPredict.java**

3. **Run**:

Branchism\src>**java Branchism.BranchPredict gcc-10k.txt 4 1 6**

The (m,n) predictor branch simulator takes the above values as command line arguments and prints the

1.Number of times the (m,n) predictor predicts a miss (In other words, the predictor predicts wrong)

2.Number of entries utilized in the branch predictor