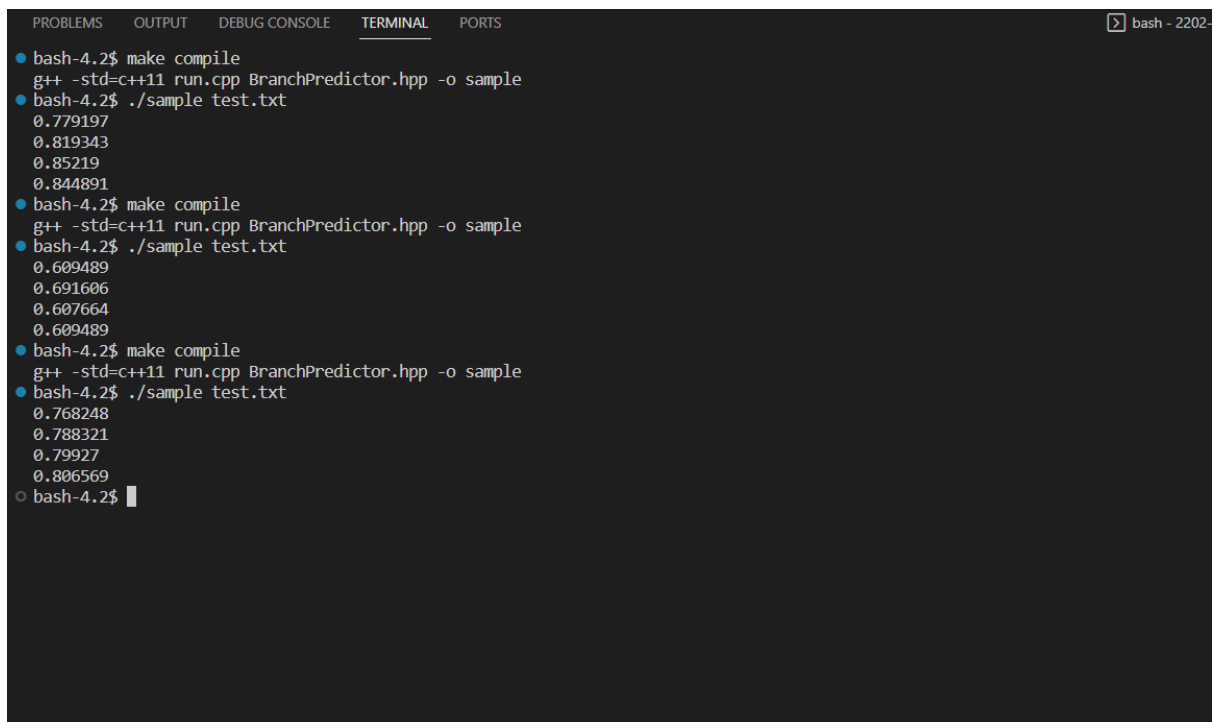


COL216 ASSIGNMENT 2

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2019CS10335



The image shows a terminal window with a dark background. At the top, there are tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL' (which is selected), and 'PORTS'. In the top right corner, there is a small icon and the text 'bash - 2202-'. The terminal content shows a series of commands and their outputs, grouped by a blue circular bullet point on the left. The commands are: 'make compile', 'g++ -std=c++11 run.cpp BranchPredictor.hpp -o sample', and './sample test.txt'. The outputs are numerical values: 0.779197, 0.819343, 0.85219, 0.844891, 0.609489, 0.691606, 0.607664, 0.609489, 0.768248, 0.788321, 0.79927, 0.806569. The terminal ends with a prompt 'bash-4.2\$' and a cursor.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS bash - 2202-
● bash-4.2$ make compile
g++ -std=c++11 run.cpp BranchPredictor.hpp -o sample
● bash-4.2$ ./sample test.txt
0.779197
0.819343
0.85219
0.844891
● bash-4.2$ make compile
g++ -std=c++11 run.cpp BranchPredictor.hpp -o sample
● bash-4.2$ ./sample test.txt
0.609489
0.691606
0.607664
0.609489
● bash-4.2$ make compile
g++ -std=c++11 run.cpp BranchPredictor.hpp -o sample
● bash-4.2$ ./sample test.txt
0.768248
0.788321
0.79927
0.806569
○ bash-4.2$
```

BRANCH PREDICTOR ACCURACY VALUES:

Saturating Branch Predictor

00: 0.779197

01: 0.819343

10: 0.85219

11: 0.844891

BHRBranch Predictor

00: 0.609489

01: 0.691606

10: 0.607664

11: 0.609489

Saturating BHRBranch Predictor

00: 0.768248

01: 0.788321

10: 0.79927

11: 0.806569

TESTCASE VS NUMBER OF CYCLES:

Testcase 1:

Stall: 17

Bypass: 11

Testcase 2:

Stall: 18

Bypass: 14

Testcase 3:

Stall: 33

Bypass: 24

Testcase 4:

Stall: 30

Bypass: error