- 1) Main\_File.py
  - → This file will contain the main function through which the cache function will be called. This file also contains the function to read the input from the trace file.
- 2) BranchPrediction.py
  - → This file contains the code for executing instruction and prediction for SmithNBit, GShare, Bimodal Branch Prediction.
- 3) HybridPrediction.py
  - → This file contains the logic for executing instruction and prediction for Hybrid Branch Prediction.

========= Command Line Arguments and Execution Steps =========

1) Smith N-Bit Predictor.

Python Main\_File.py smith 3 Traces/gcc\_trace.txt

2) Bimodal Branch Prediction

Python Main File.py bimodal 6 traces/gcc trace.txt

3) G-Share Branch Prediction

Python Main\_File.py gshare 9 3 traces/gcc\_trace.txt

4) Hybrid Branch Prediction

Python Main\_File.py hybrid 8 14 10 5 traces/gcc\_trace.txt

\_\_\_\_\_\_\_

In case of any issues please let me know.

Thank You.