

University of Central Florida

Department of Computer Science

CDA 5106: Fall 2020

Machine Problem 2: Branch Prediction

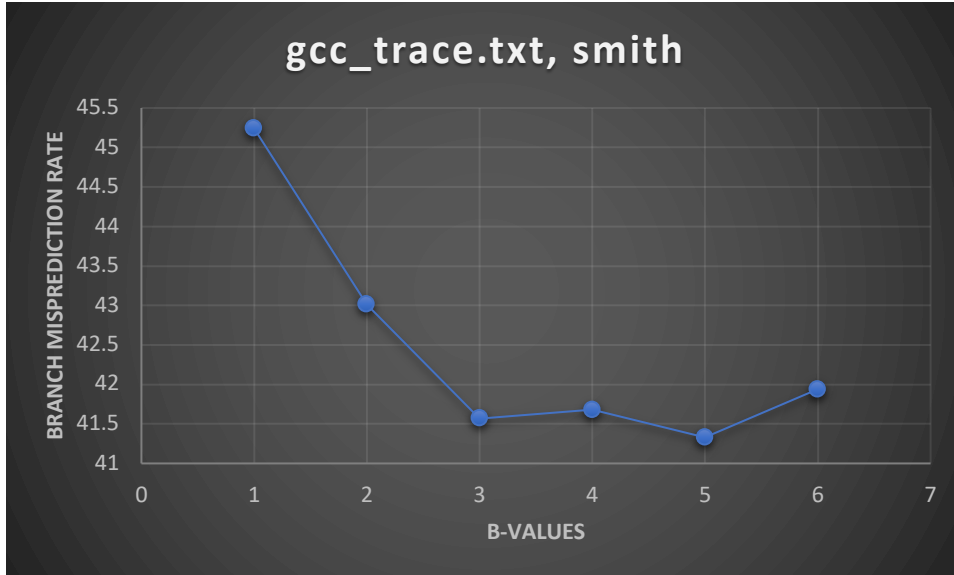
by

<< TARUN SAI TEJA INAKOLLU >>

Honor Pledge: "I have neither given nor received unauthorized aid on this test or assignment."

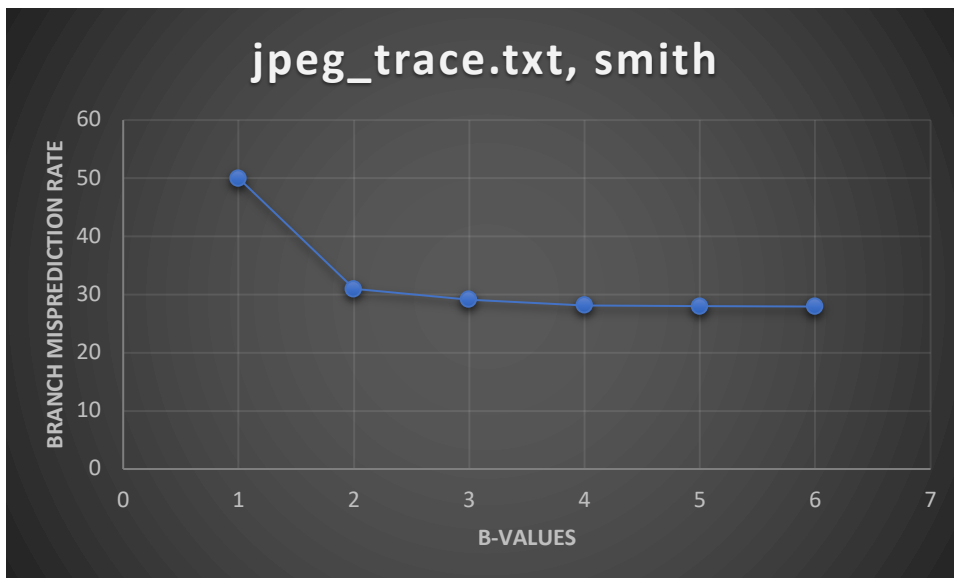
Student's electronic signature: _____ Tarun Sai Teja Inakollu _____
(sign by typing your name)

Graph 1:



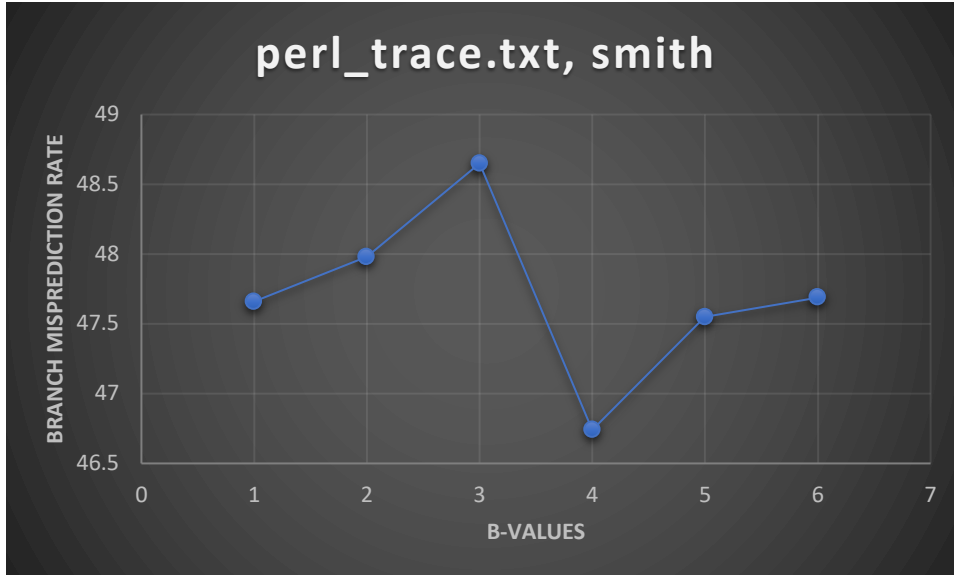
For this Graph we have taken gcc_trace.txt, B values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that Branch misprediction rate decreases from b=1 to 3 and goes remains approximately constant thereafter. Highest Branch misprediction rate occurs at b=1.

Graph 2:



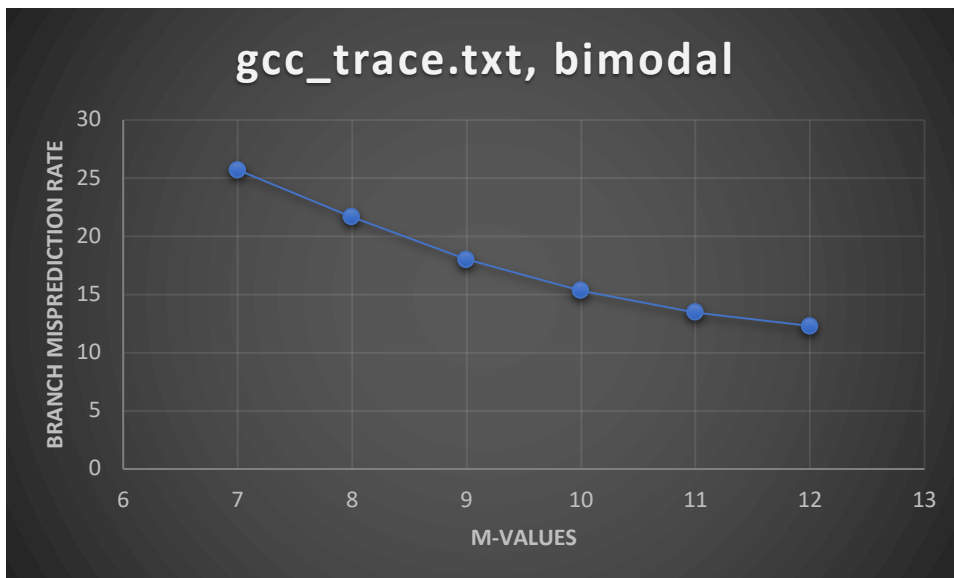
For this Graph we have taken jpeg_trace.txt, B values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that Branch misprediction rate decreases from b=1 to 2 and goes remains approximately constant thereafter. Highest Branch misprediction rate occurs at b=1.

Graph 3:



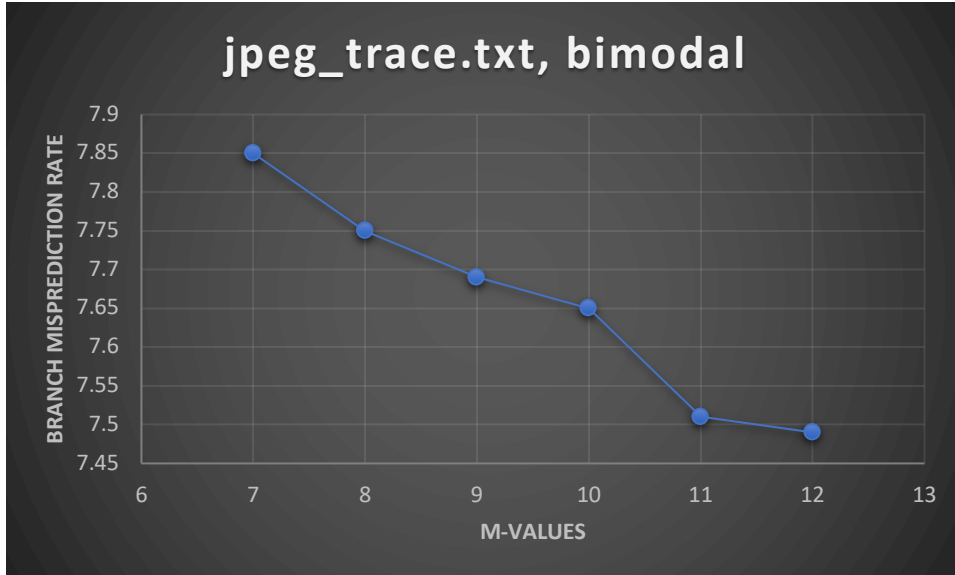
For this Graph we have taken jpeg_trace.txt, B values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that Branch misprediction rate increases from b=1 to 3, sharp decline for b=4 and increases again thereafter. Highest Branch misprediction rate occurs at b=3.

Graph 4:



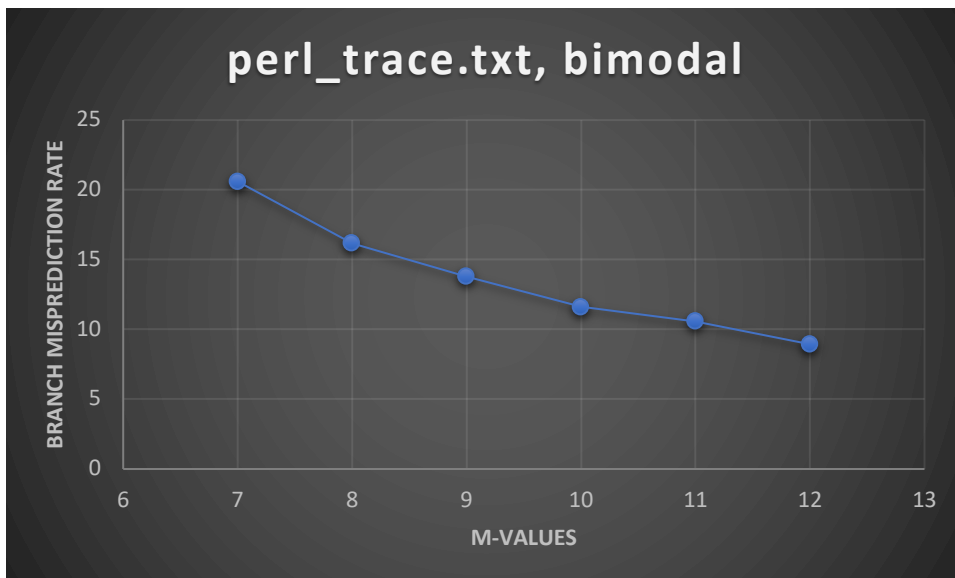
For this Graph we have taken gcc_trace.txt, M values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that Branch misprediction rate decreases with m values.

Graph 5:



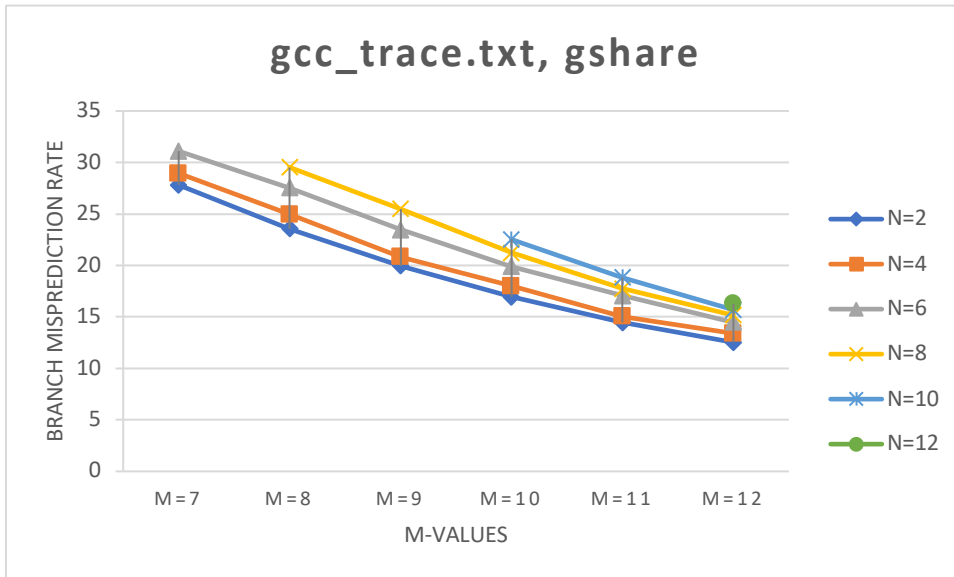
For this Graph we have taken jpeg_trace.txt, M values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that Branch misprediction rate decreases with m values.

Graph 6:



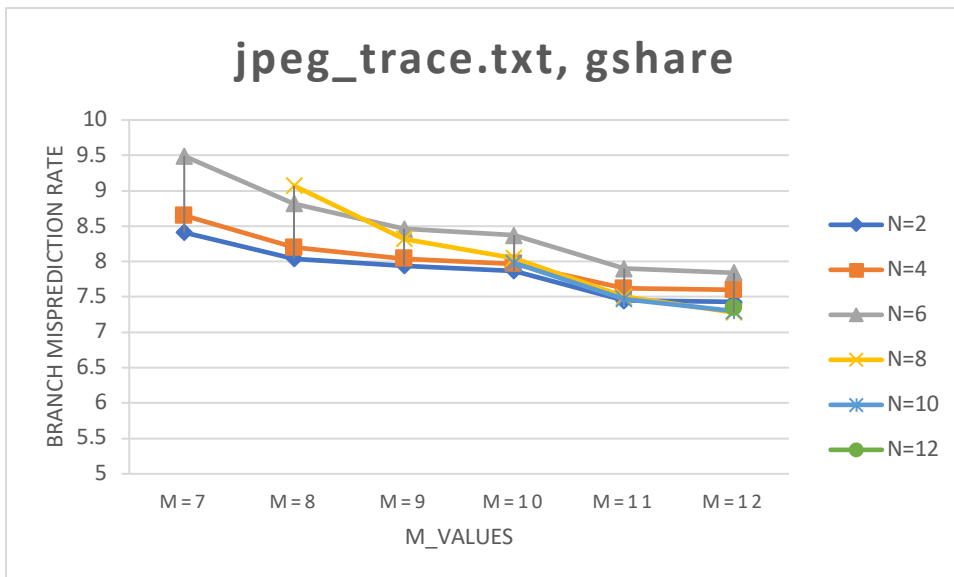
For this Graph we have taken perl_trace.txt, M values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that Branch misprediction rate decreases with m values.

Graph 7:



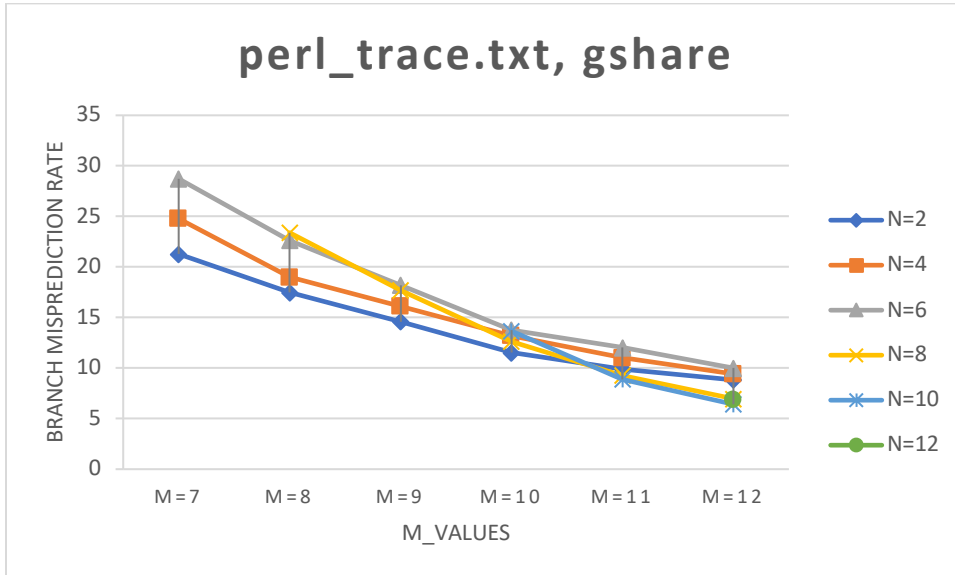
For this Graph we have taken gcc_trace.txt, M values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that all the Branch misprediction rate decreases with m values.

Graph 8:



For this Graph we have taken jpeg_trace.txt, M values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that all the Branch misprediction rate decreases with m values.

Graph 9:



For this Graph we have taken perl_trace.txt, M values as X-axis and Branch misprediction rate as Y-axis. As far as trends are considered we can see that all the Branch misprediction rate decreases with m values.