**Project 2 Skeleton** … For those who attended the class today Monday April 7. Dr. Amro went through the code for completing project 2. The syntax might not be correct most of the time, but useful in extracting M, N , excluding the offset, locating/indexing the table entries, comparing and updating statistics, table entries (predictors) and GHB register.

M, N

M = number of bits: large table

N = Global history

Int main(….)

{

M = atoi(argv[1]);

N = atoi (argv[2]);

TRACE\_FILE = argv[3];

Int size\_of\_table = pow(2, M);

Int \* M\_TABLE = new int [size\_of\_table];

Int GHB = 0;

// Initialize each entry to 2, 1

While( file is open)

{

Int PC = line PC

Int OUTCOME = line outcome

PC = PC/4;

M\_INDEX = PC % (pow(2,M));

N\_EXT = N << (M-N);

Index = M\_INDEX ^ N\_EXT;

PREDICTION = M\_TABLE[INDEX];

// Compare prediction with outcome, and increment stats

// Make sure after updating table entry, it doesn’t exceed 3 or less than 0

If (OUTCOME)

GHB = GHB>>1 + pow(2, N-1);

Else

GHB = GHB>>1;

}

}