COSC 6351: Advance Computer Architecture

Quiz 4

Based on the example in our previous class, please complete the following register renaming given available PRF {A, B, C, D, E, F, G, H, I, J, K, L, M, N} (Hint: maintain an updated RAT for each renaming.)

R1 = R2 + R3	= +
R2 = R2 + R1	= +
R1 = R1 * R2	= *
R2 = R1 + R3	= +
R3 = R1 >> *1*	= >> *1*
BNEZ R3, top	BNEZ , top
R1 = R2 + R3	= +
R2 = R2 + R1	= +
R1 = R1 * R2	= *
R2 = R1 + R3	= +
R3 = R1 >> *1*	= >> *1*
BNEZ R3, top	BNEZ , top