HW3-2-report

➢ System configuration

Scalar Product of Boolean vector (A , B) = sum(Ai . Bi)

input.alice =A[i] and input.bob = B[i]

For sum we use XOR and for multiplication we use AND

ARR[i]= (A[i] AND B[i]) //store the result of AND in array

Scalar Product = XOR(ARR[i] , ARR[i+1])

For XOR following configuration was used:
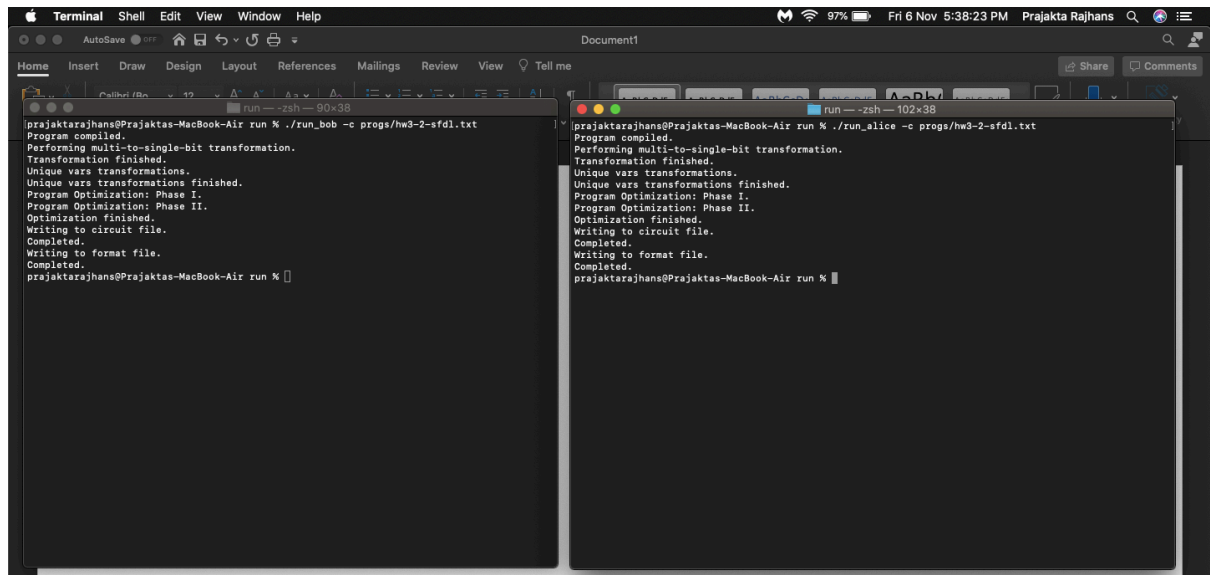
$\sum$ [(ARR[i] AND (NOT(ARR[i+1]))) OR ((NOT(ARR[i]) AND ARR[i+1])]

where i= 0 to 9

➢ Input vector

Alice = {1,1,0,0,1,1,0,1,1,0}
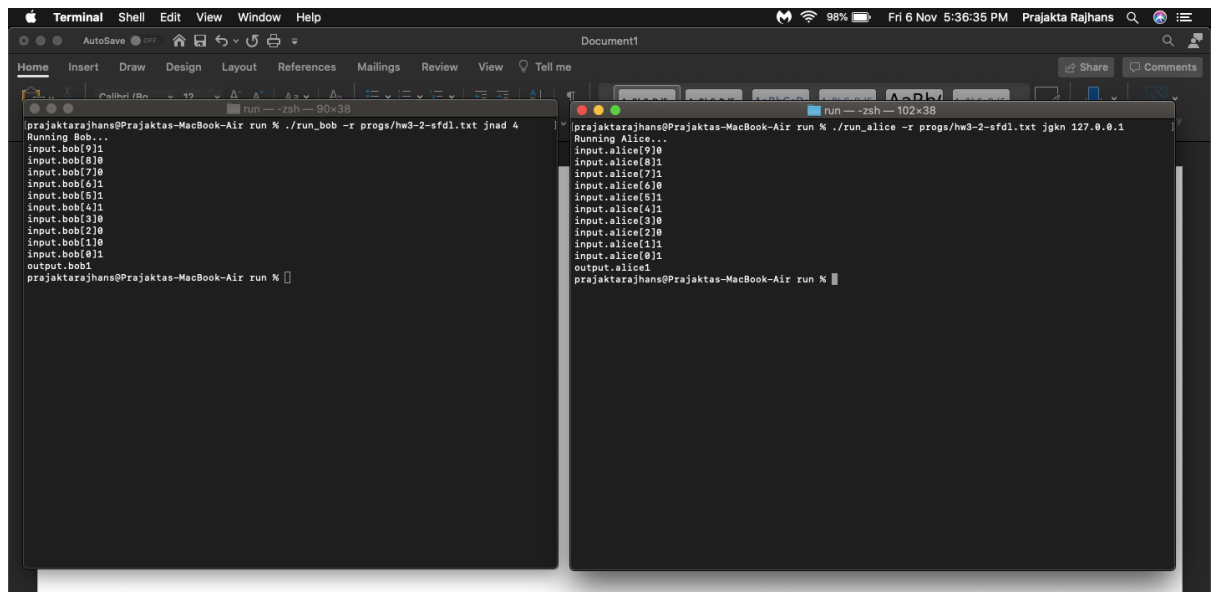Bob = {1,0,0,0,1,1,1,0,0,1}

➢ Compiling the program

> Running the program:

> Output

output.alice=1

output.bob=1