S → AaAb / BbBa  
A → ∈  
B → ∈

#include <stdio.h>

#include <string.h>

#define MAX 10

char prod[MAX][MAX];

char follow[MAX][MAX];

int n;

void addFollow(char nt, char sym)

{

if (!strchr(follow[nt - 'A'], sym))

strncat(follow[nt - 'A'], &sym, 1);

}

void findFollow(char nt) {

if (nt == 'S') addFollow(nt, '$');

for (int i = 0; i < n; i++)

{

for (int j = 2; prod[i][j] != '\0'; j++)

{

if (prod[i][j] == nt)

{

if (prod[i][j + 1] != '\0')

addFollow(nt, prod[i][j + 1]);

else

strcat(follow[nt - 'A'], follow[prod[i][0] - 'A']);

}

}

}

}

int main()

{

printf("Enter number of productions: ");

scanf("%d", &n);

printf("Enter productions (e.g., S=AaAb):\n");

for (int i = 0; i < n; i++)

scanf("%s", prod[i]);

for (int i = 0; i < n; i++)

findFollow(prod[i][0]);

printf("\nFOLLOW sets:\n");

for (int i = 0; i < n; i++)

printf("FOLLOW(%c) = { %s }\n", prod[i][0], follow[prod[i][0] - 'A']);

return 0;

}