#include <stdio.h>

#define SIZE 10

main () {

char non\_terminal;

char beta,alpha;

char production[SIZE];

int index=3; /\* starting of the string following "->" \*/

printf("Enter the grammar:\n");

scanf("%s",production);

non\_terminal=production[0];

if(non\_terminal==production[index]) {

alpha=production[index+1];

printf("Grammar is left recursive.\n");

while(production[index]!=0 && production[index]!='|')

index++;

if(production[index]!=0) {

beta=production[index+1];

printf("Grammar without left recursion:\n");

printf("%c->%c%c\'",non\_terminal,beta,non\_terminal);

printf("\n%c\'->%c%c\'|E\n",non\_terminal,alpha,non\_terminal);

}

else

printf("Grammar can't be reduced\n");

}

else

printf("Grammar is not left recursive.\n");

}