CODE

#include <stdio.h>

#include <string.h>

#include <stdlib.h>

#define MAX 20

int main() {

char non\_terminal;

char beta[MAX], alpha[MAX];

char production[MAX], new\_production[MAX];

int i, j = 0, flag = 0;

printf("Enter the production (e.g. E=E+T/T):\n");

scanf("%s", production);

non\_terminal = production[0];

if (production[2] == non\_terminal) {

flag = 1;

for (i = 3; production[i] != '\0' && production[i] != '/'; i++) {

alpha[j++] = production[i];

}

alpha[j] = '\0';

if (production[i] == '/') {

j = 0;

for (i = i + 1; production[i] != '\0'; i++) {

beta[j++] = production[i];

}

beta[j] = '\0';

}

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

printf("After eliminating left recursion:\n");

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

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

} else {

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

printf("Production: %s\n", production);

}

return 0;

}

SCREENSHOTS:

