**Q1. Write a program in C language to remove direct left recursion from the grammar.**

#include<stdio.h>

#include<string.h>

#define SIZE 10

int main () {

char non\_terminal;

char beta,alpha;

int num;

char production[10][SIZE];

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

printf("Enter Number of Production : ");

scanf("%d",&num);

printf("Enter the grammar as E->E-A :\n");

int i;

for(i=0;i<num;i++){

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

}

for(i=0;i<num;i++){

printf("\nGRAMMAR : : : %s",production[i]);

non\_terminal=production[i][0];

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

alpha=production[i][index+1];

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

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

index++;

if(production[i][index]!=0) {

beta=production[i][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(" can't be reduced\n");

}

else

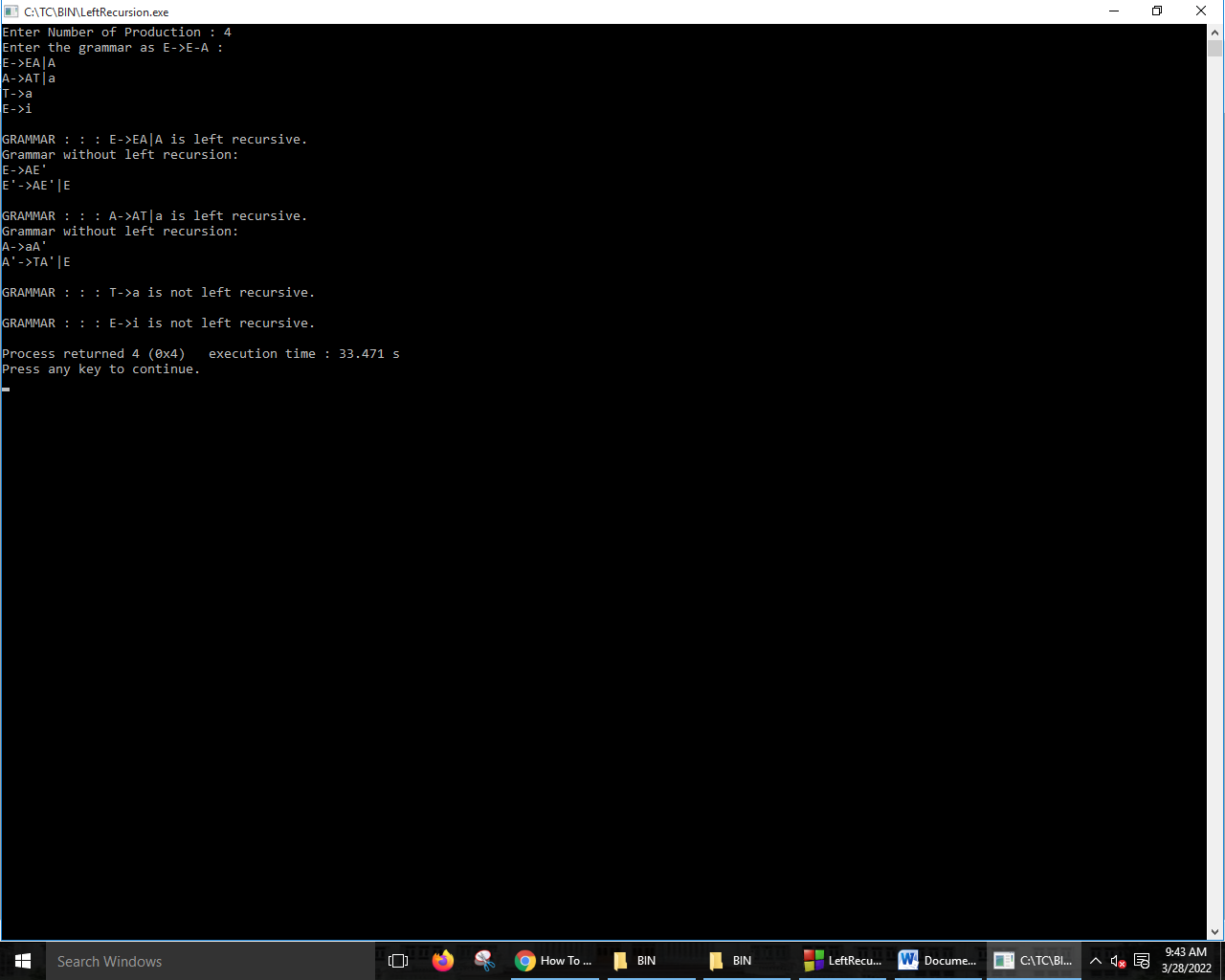
printf(" is not left recursive.\n");

index=3;

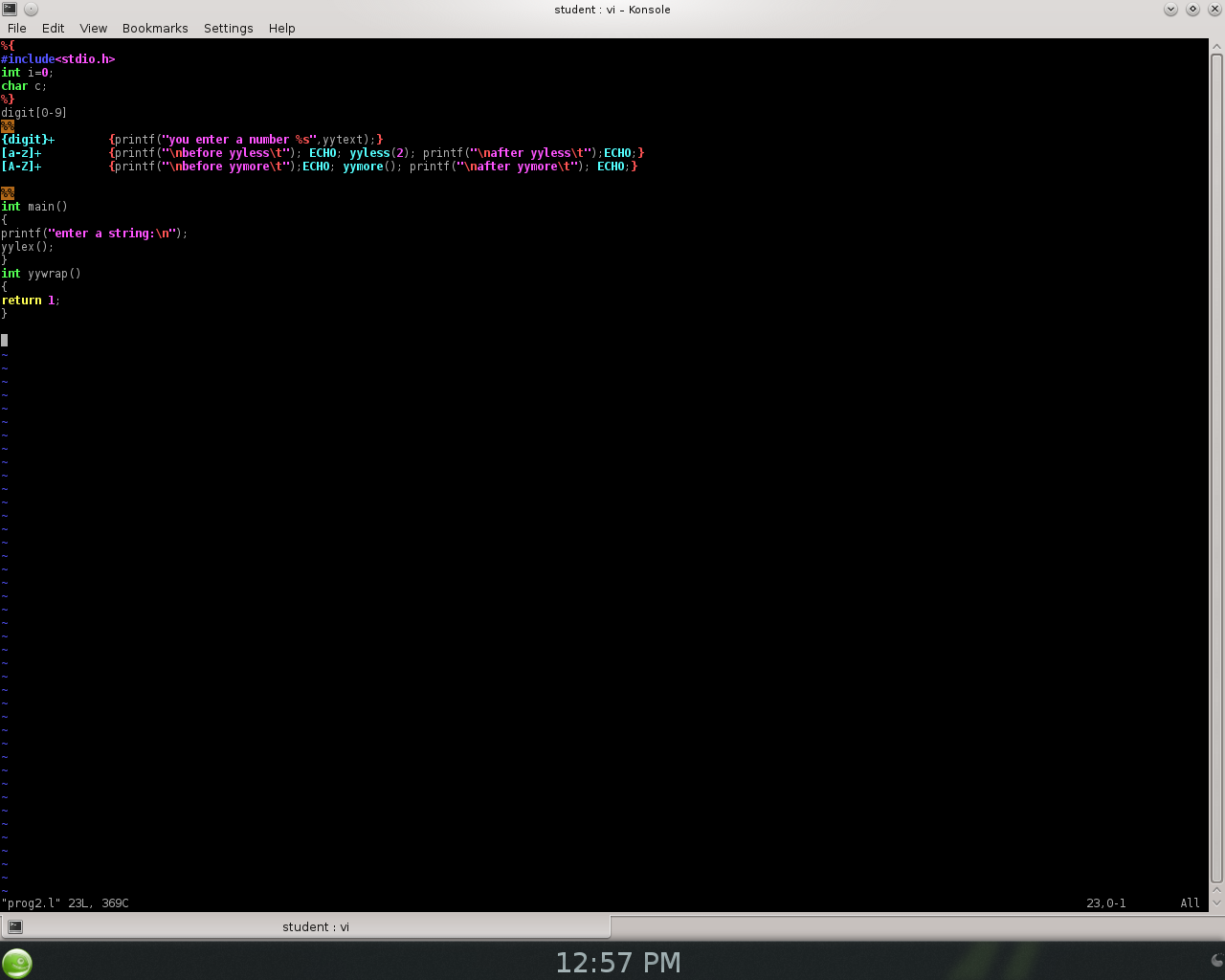
}

}

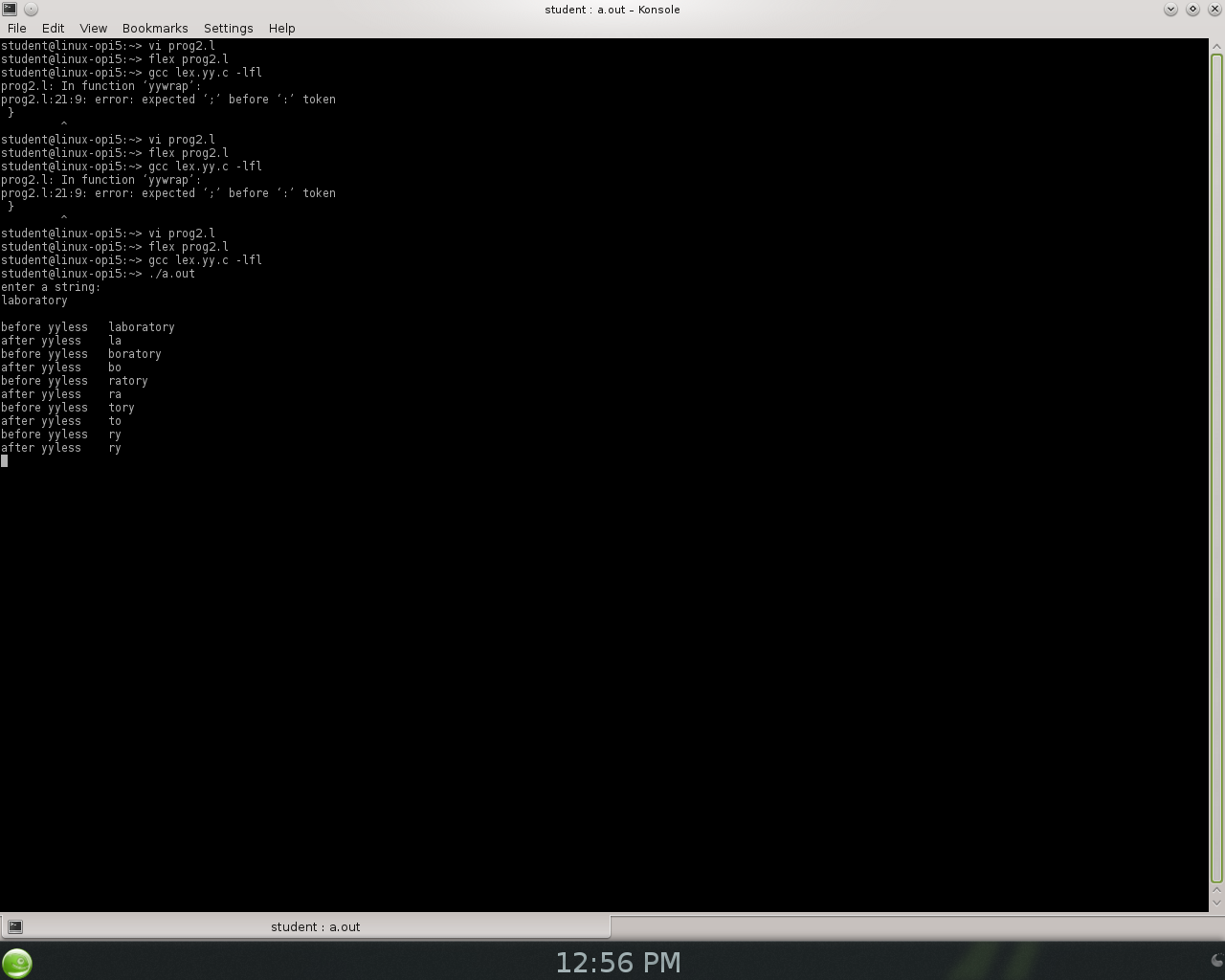
**Output-**

****

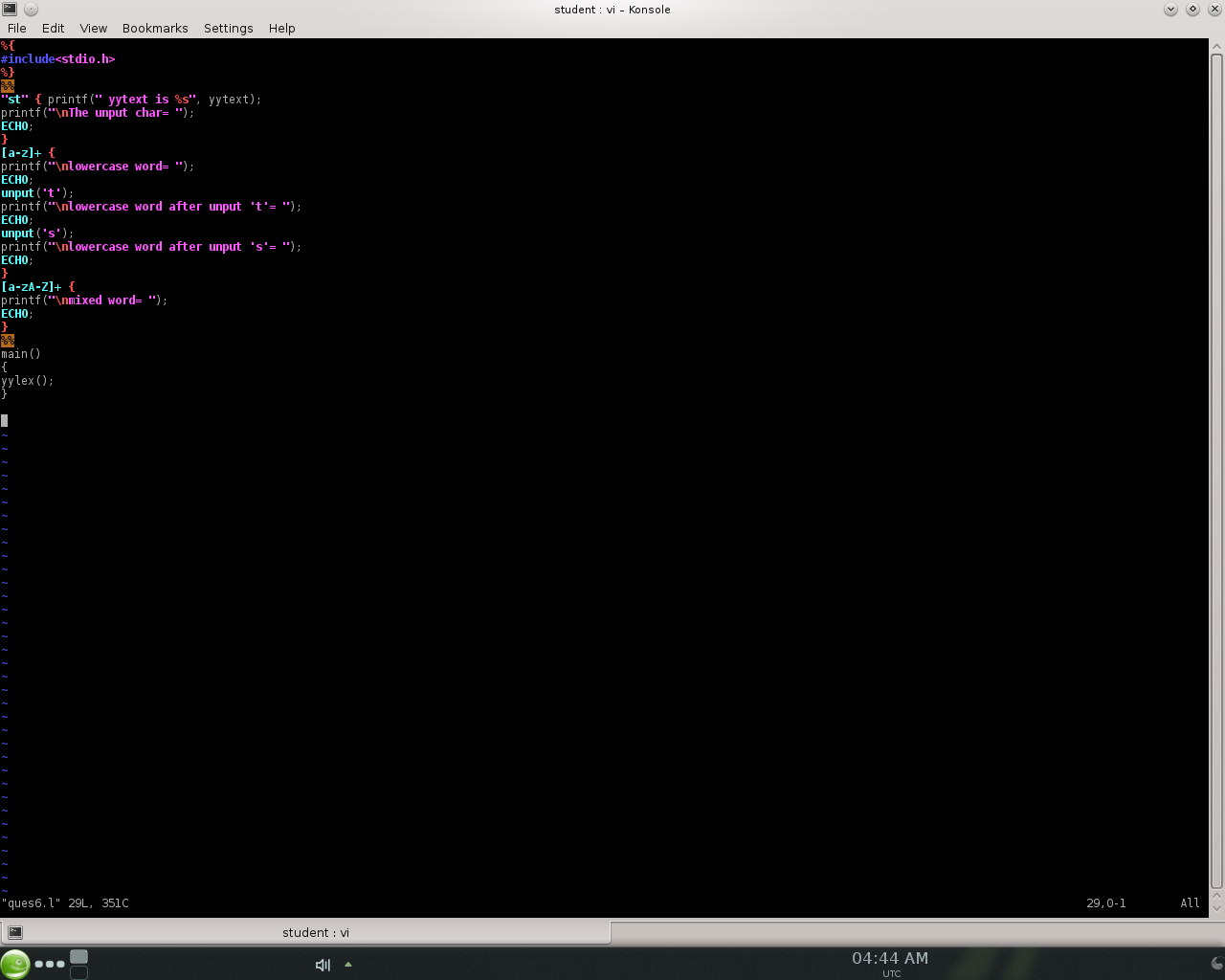
**Q2. Demonstration of Flex Directives/function yyless & yymore.**

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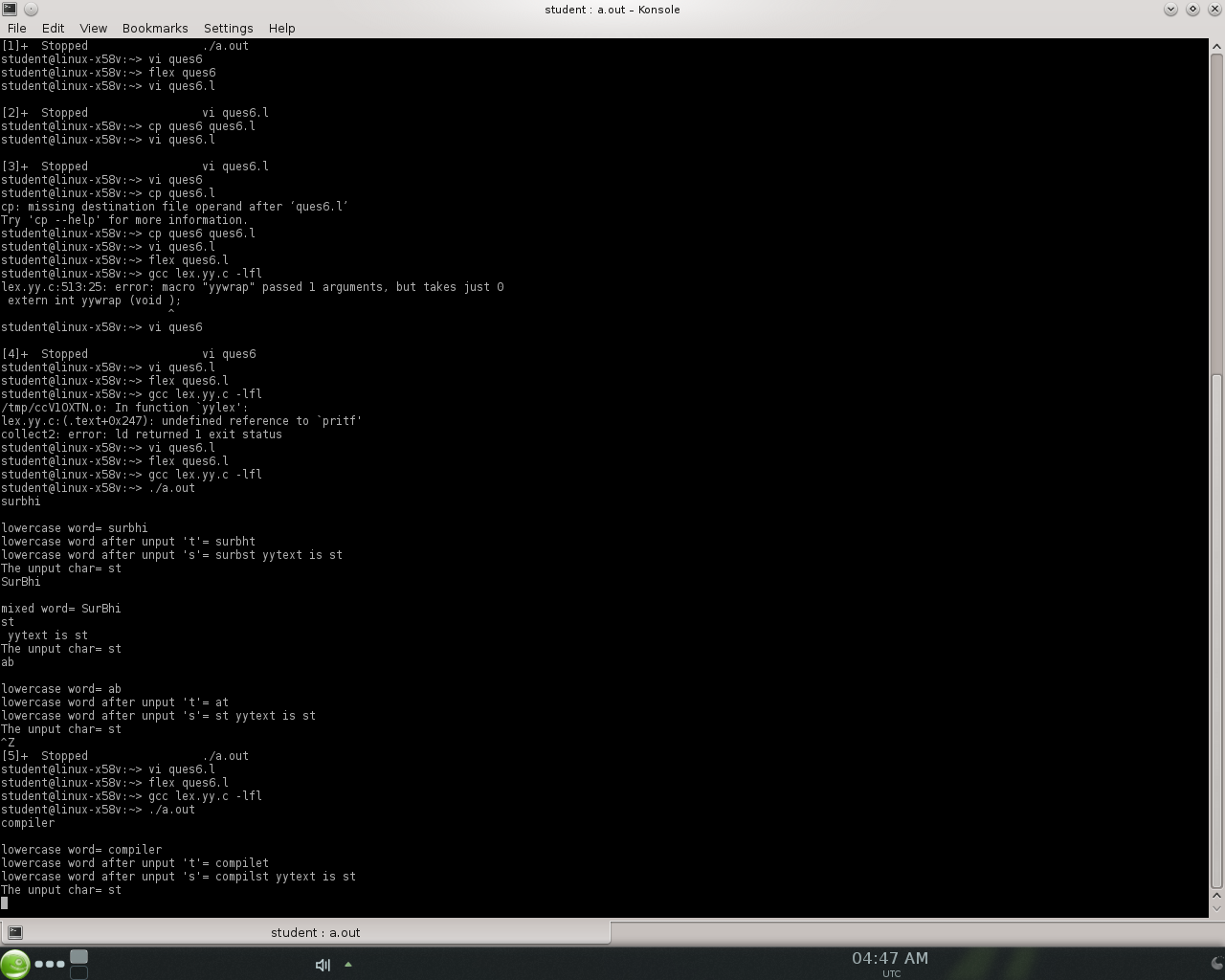
**OUTPUT -**

****

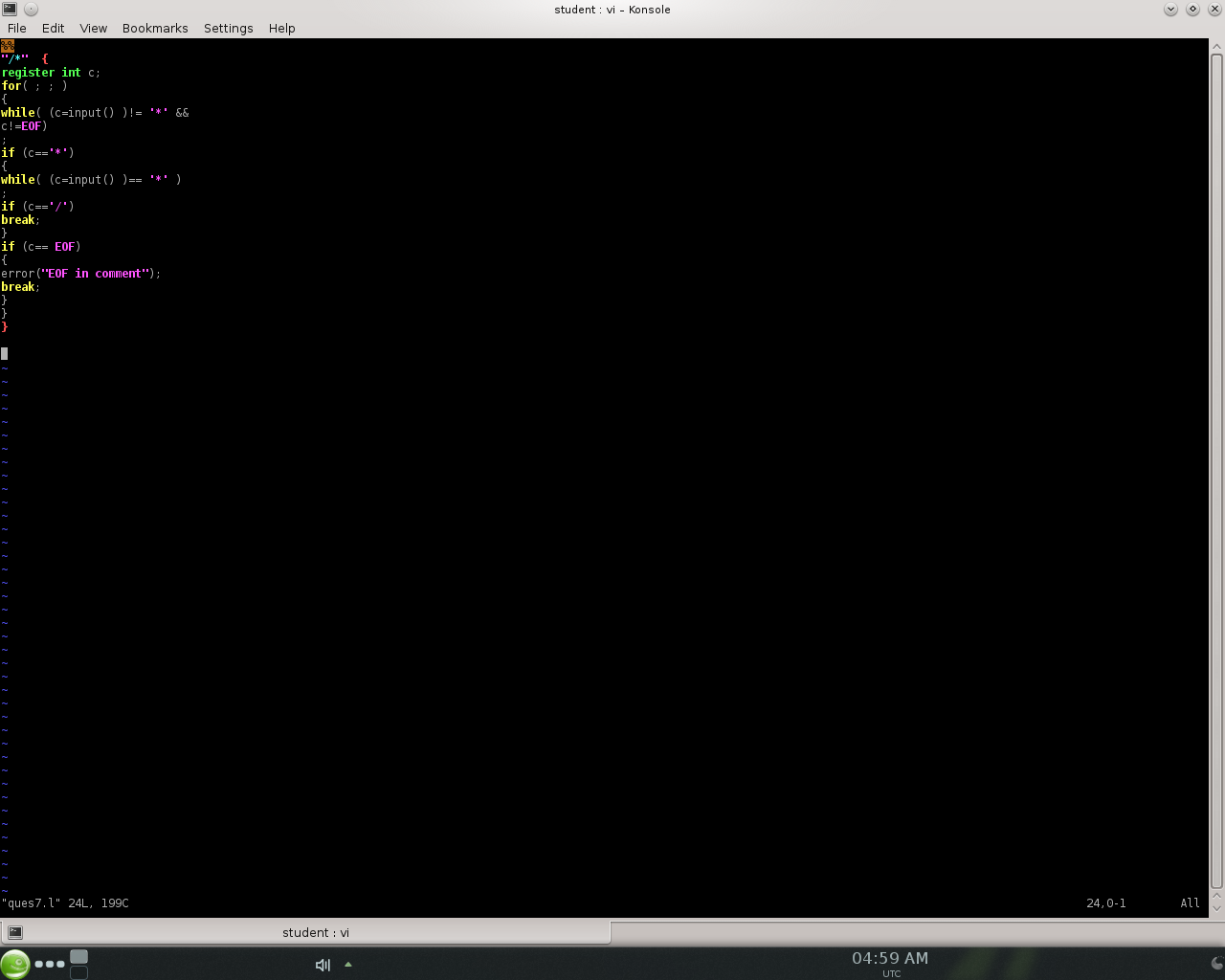
**Q3. Demonstration of Flex Directives/function unput.**

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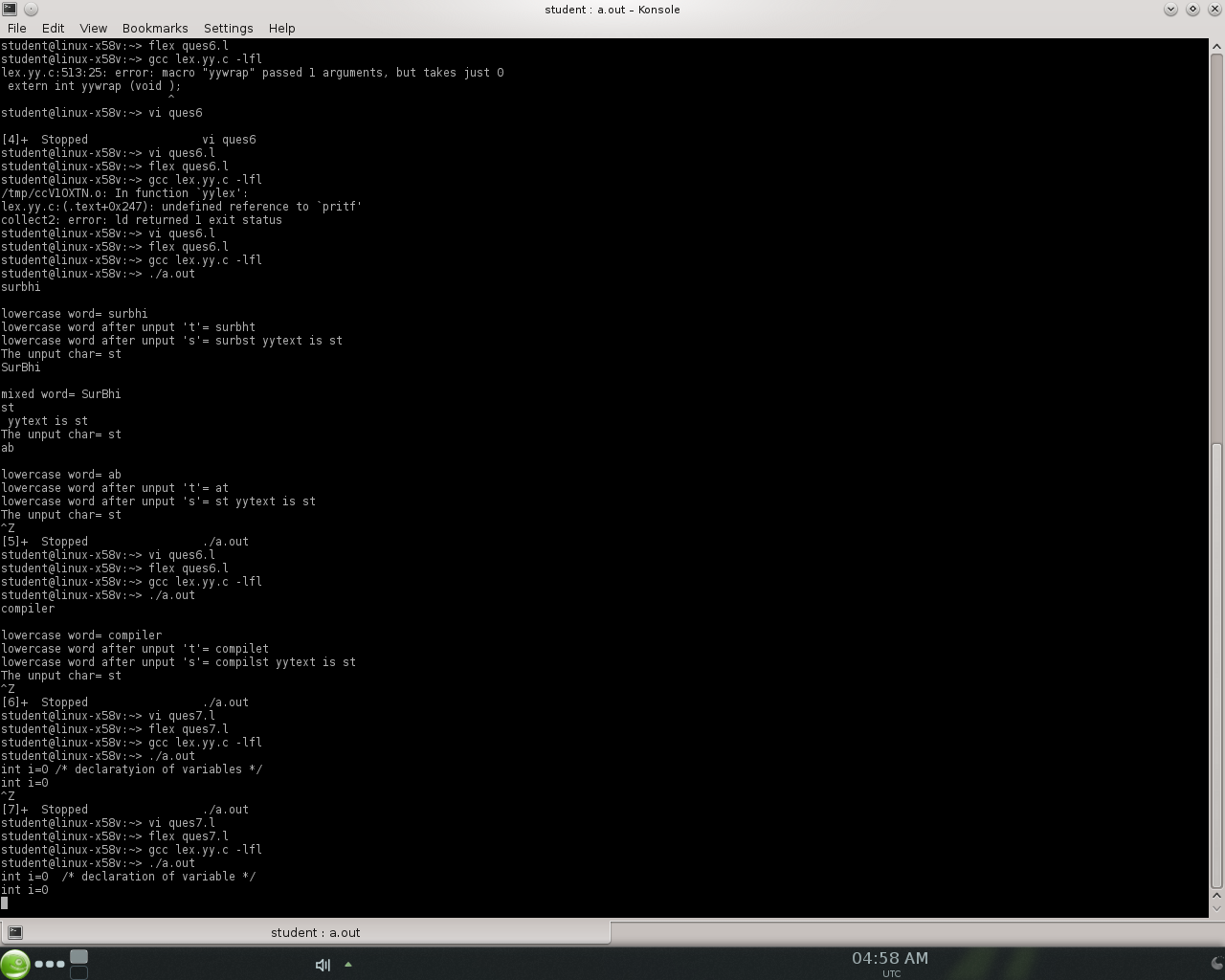
**OUTPUT -**

****

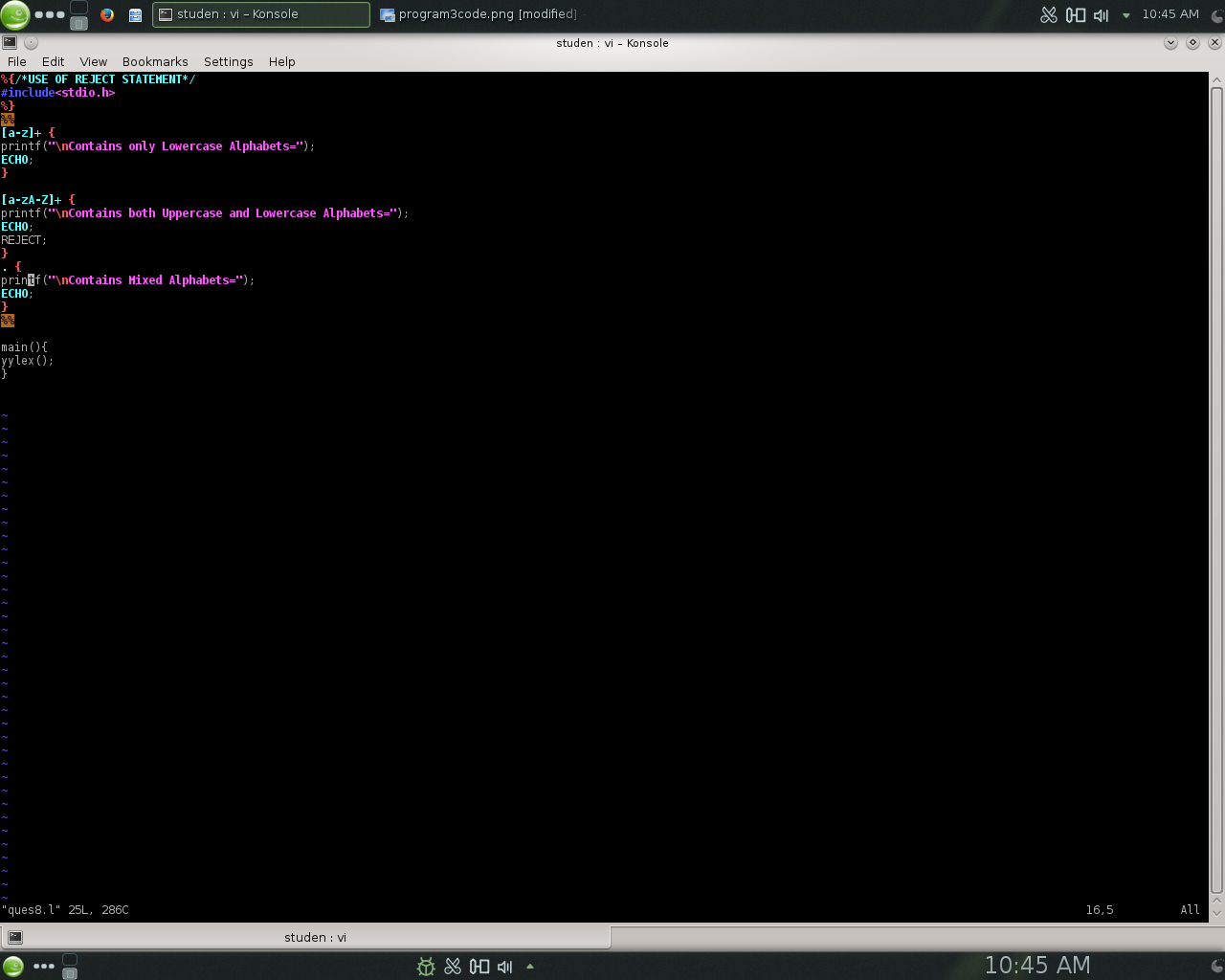
**Q4. Demonstration of Flex Directives/function input.**

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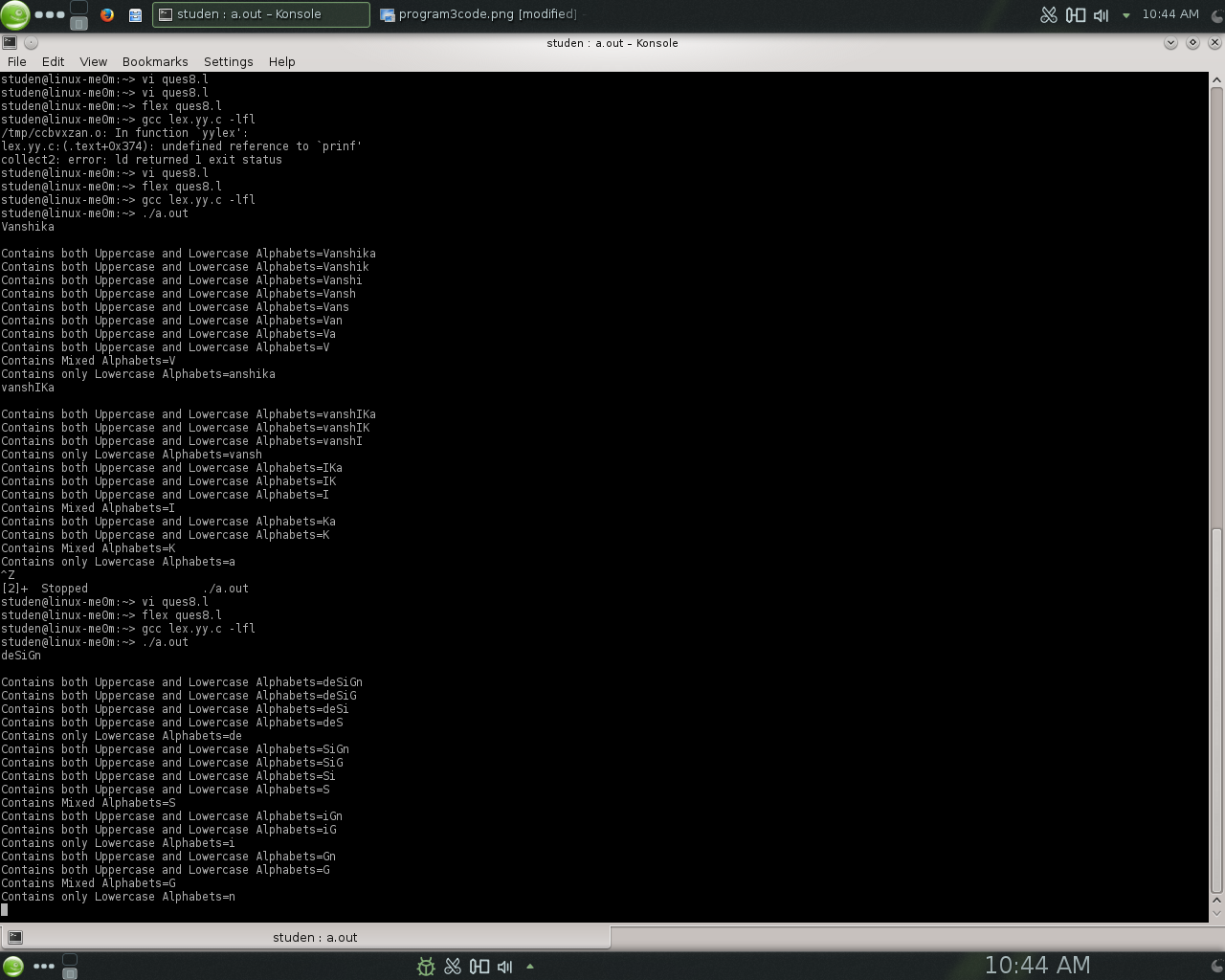
**OUTUPT -**

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**Q5. Demonstration of Flex Directives/function echo & reject.**

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**OUTPUT -**

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