**LAB RECORD**

**Compiler Design**

**19CSE401**



**BONAFIDE CERTIFICATE**

**University Reg. No** : CH.EN.U4CSE22160

This is to certify that this is a bonafide record work done by

Mr. / Miss. Velchuri Sarvan studying B.Tech CSE 4th year.

**Internal Examiner1 Internal Examiner2**

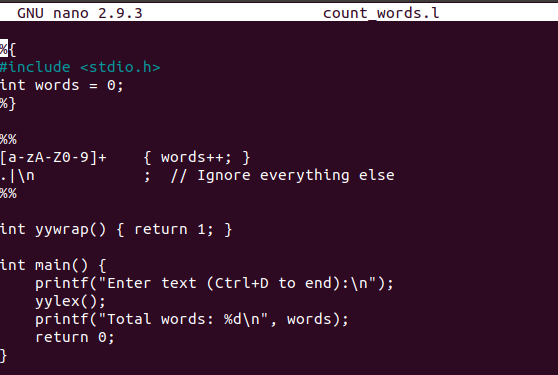
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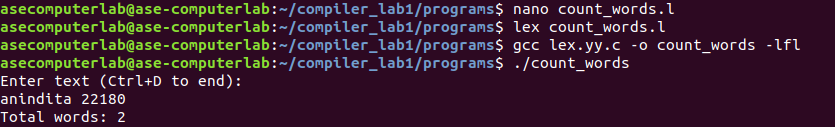
**Lab Exercise -01**

**1. Aim**: To write a program that identifies and counts words in an input sentence.

**Program:**

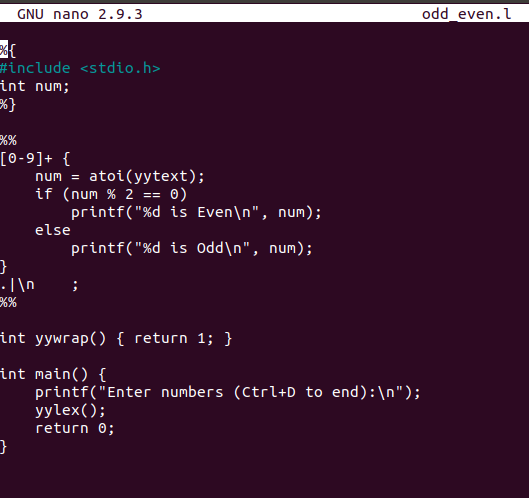


**Output:**

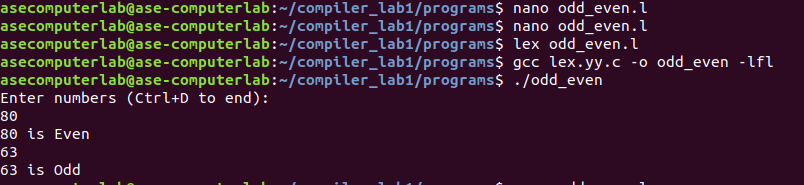


**2. Aim**: To write a program that checks whether a given number is odd or even.

**Program:**

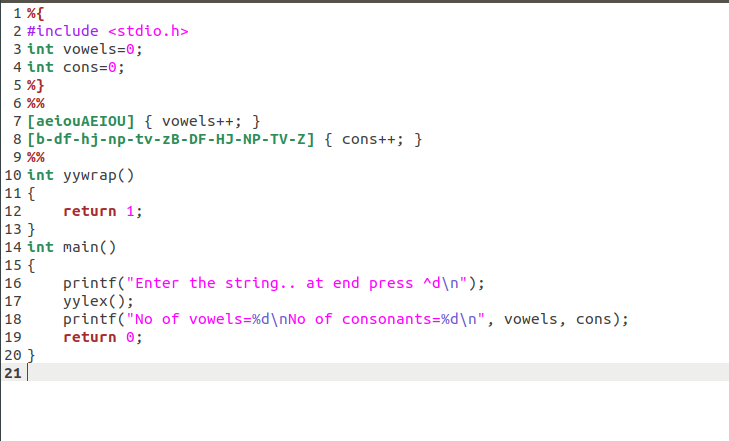


**Output:**

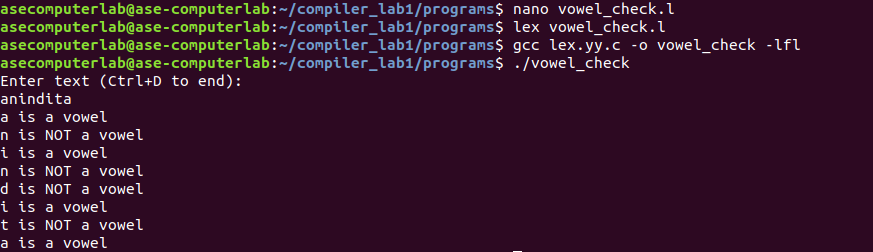


**3. Aim**: To write a program that identifies and counts vowels in each character or string.

**Program**:

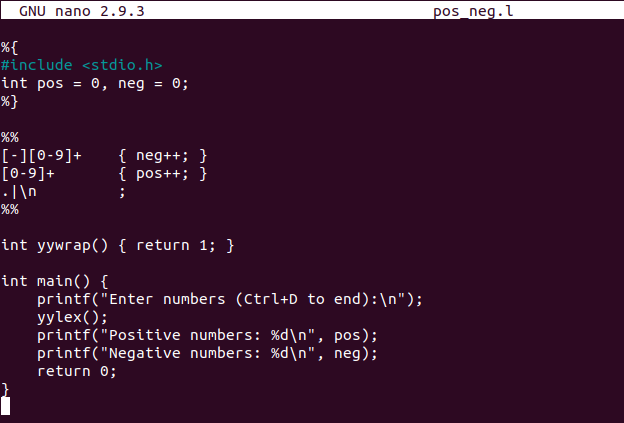


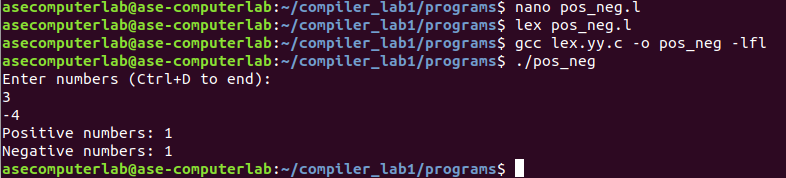
**Output:**



**4. Aim**: To write a program that determines whether a given number is positive or negative.

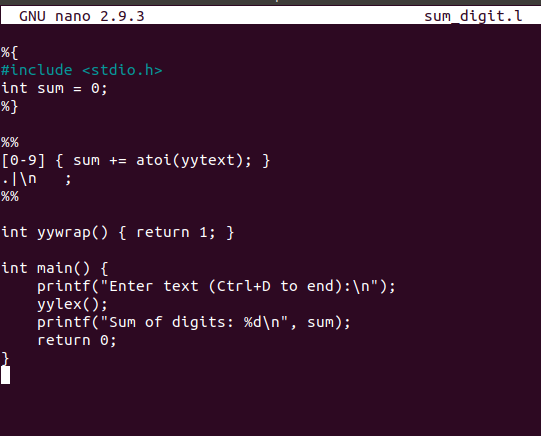
**Program:**



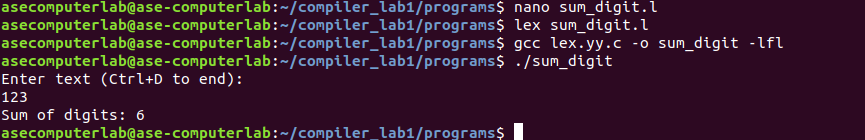
**Output**:

**5. Aim:** To write a program that calculates the sum of the digits of a given number.

**Program:**



**Output**:



**Results**: The programs for Implementation of Lexical Analyzer using Lex Tools

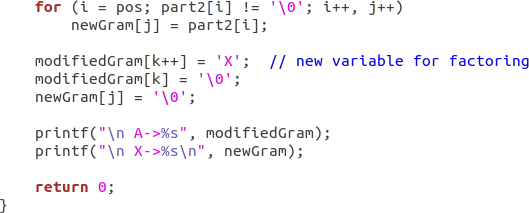
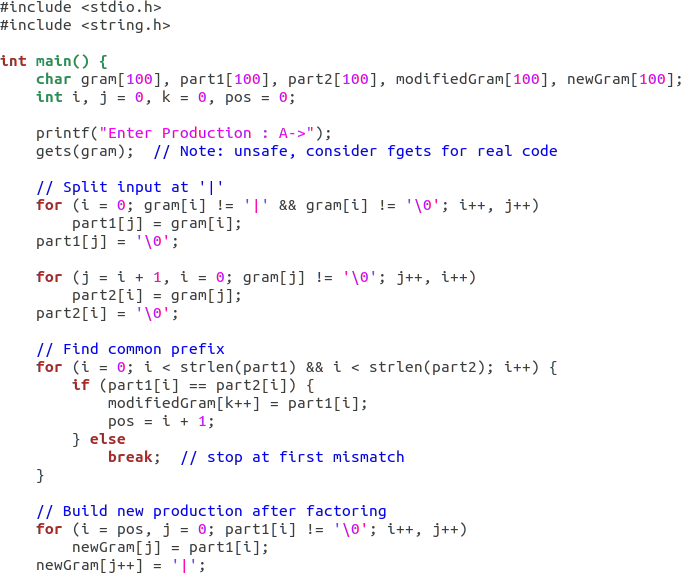
has been successfully executed.

Lab Exercise -02

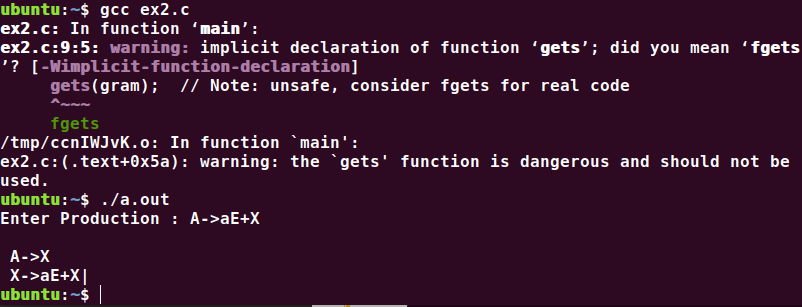
**Aim**: To implement eliminate left recursion and left factoring from the given grammar using C program.

**Left factoring**

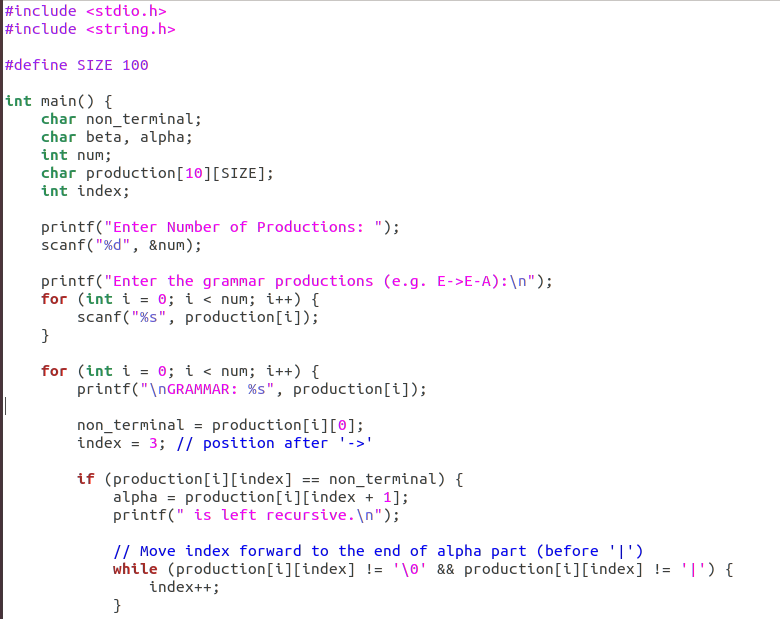
**Code:**

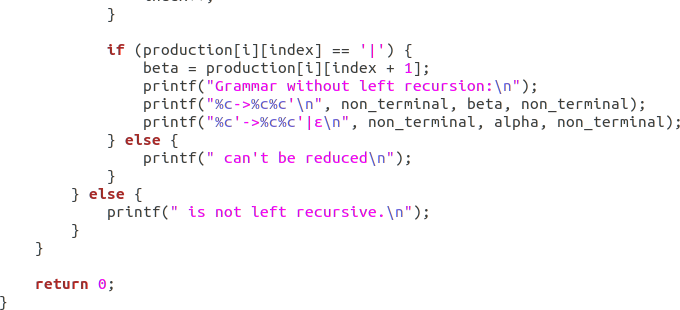
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**Output:**

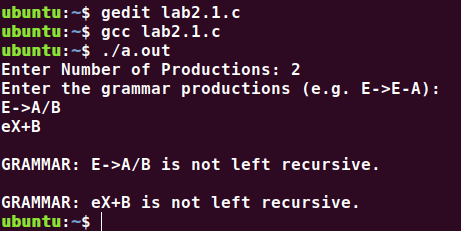
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**Left Recursion**

** Code:**



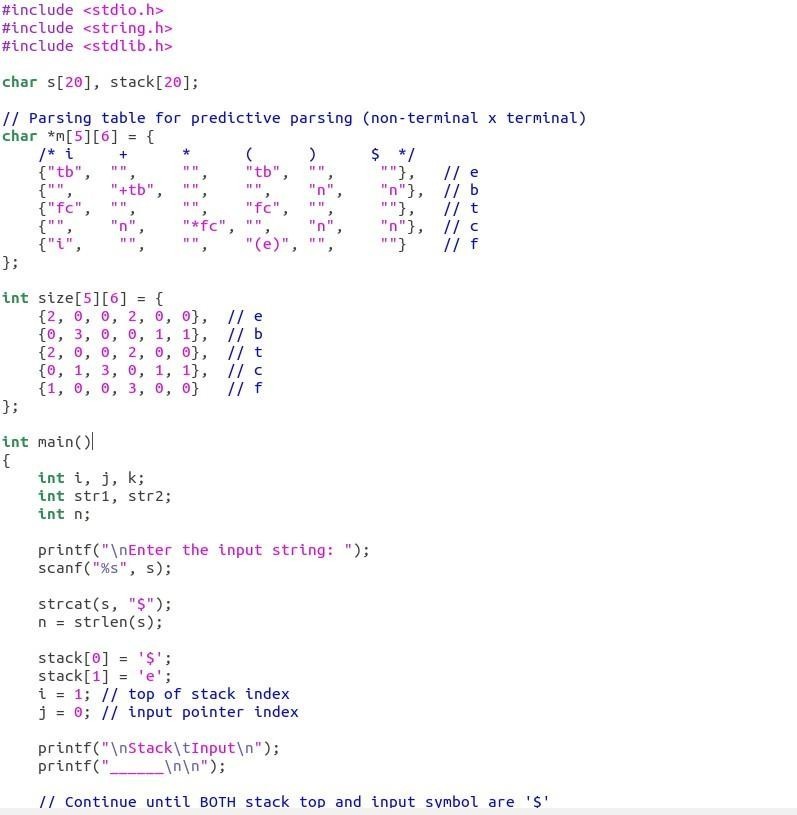
**Output:**

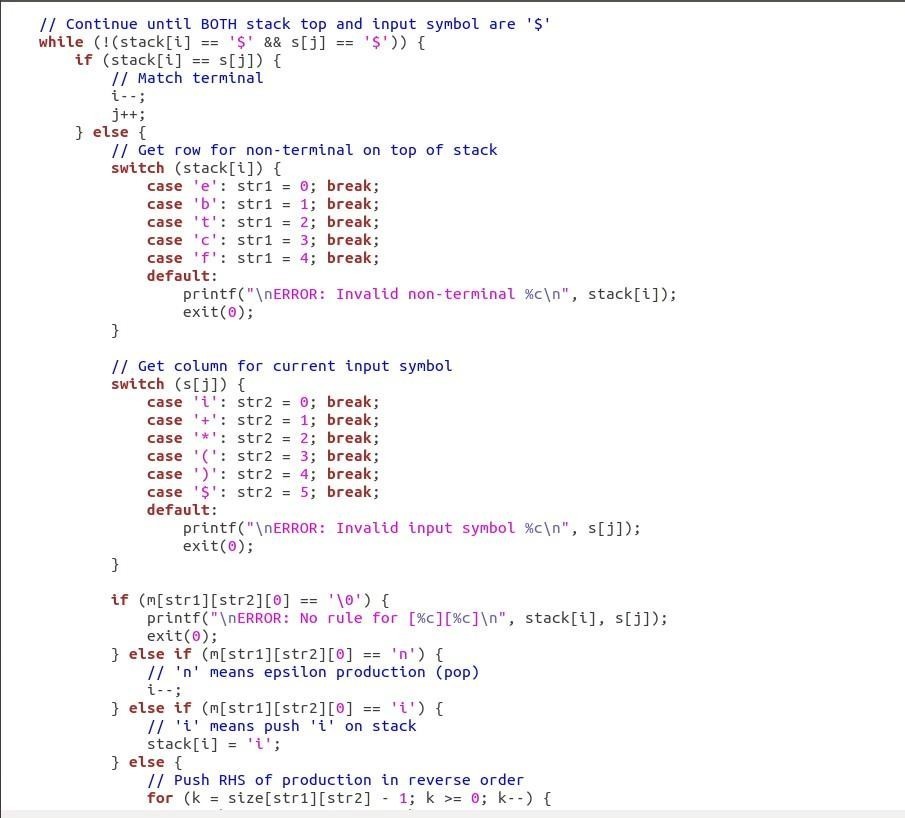
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**Results**: The program to implement left factoring and left recursion has been successfully executed.

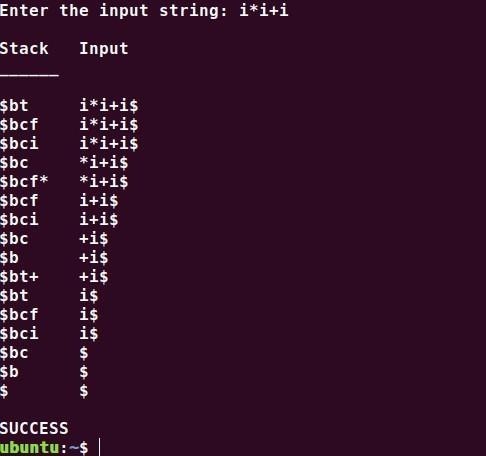
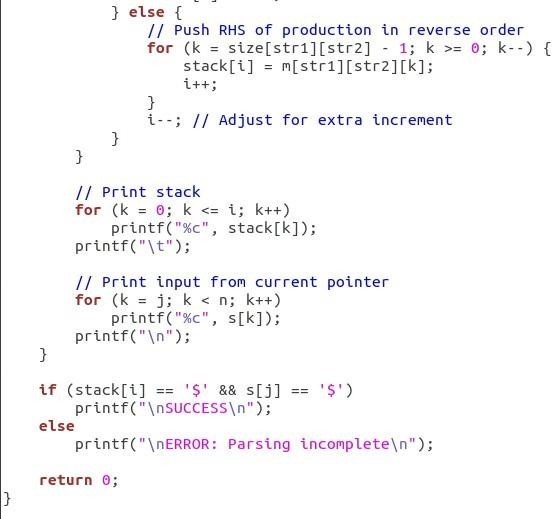
**Lab Exercises - 03**

**Aim**: To implement LL(1) parsing using C program.

 **Code:**



**Output:**

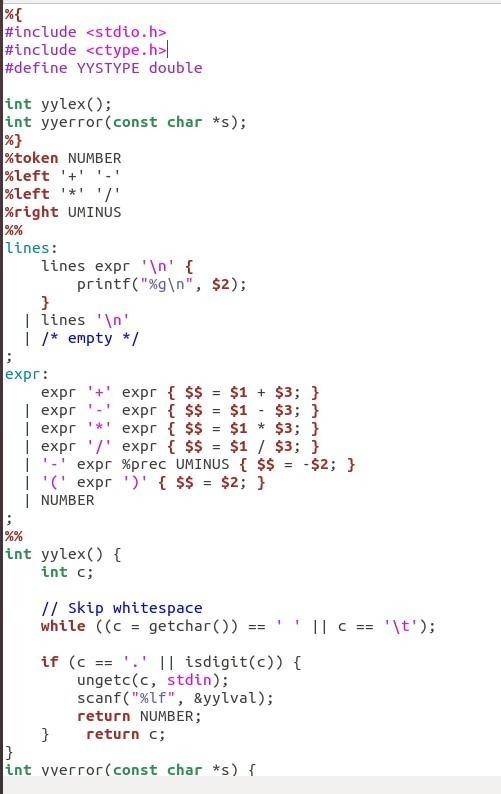


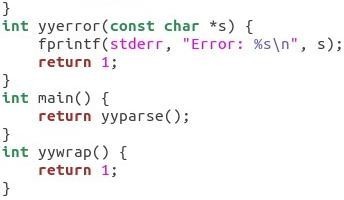
**Results**: The program to implement left factoring and left recursion has

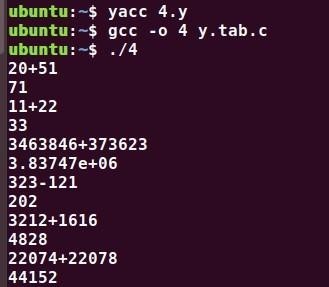
been successfully executed.

**Lab Exercises -04**

**Aim**: To write a program in YACC for parser generation.

 **Code**:



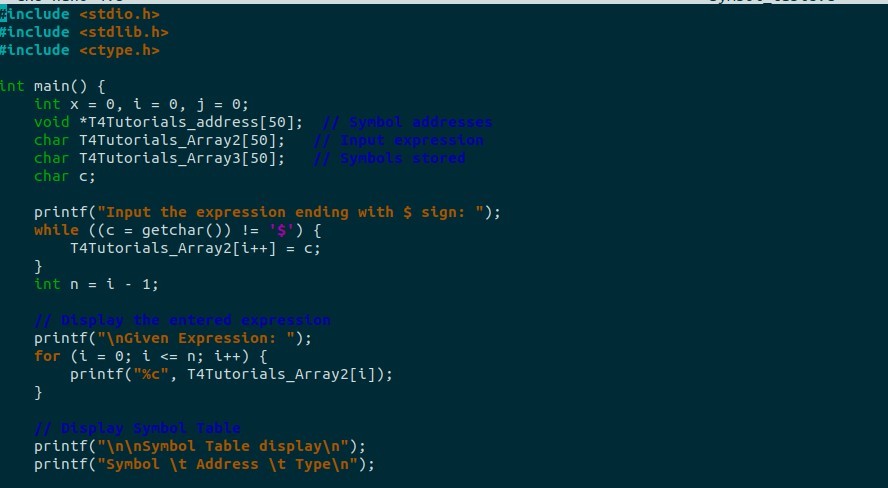
**Output:**

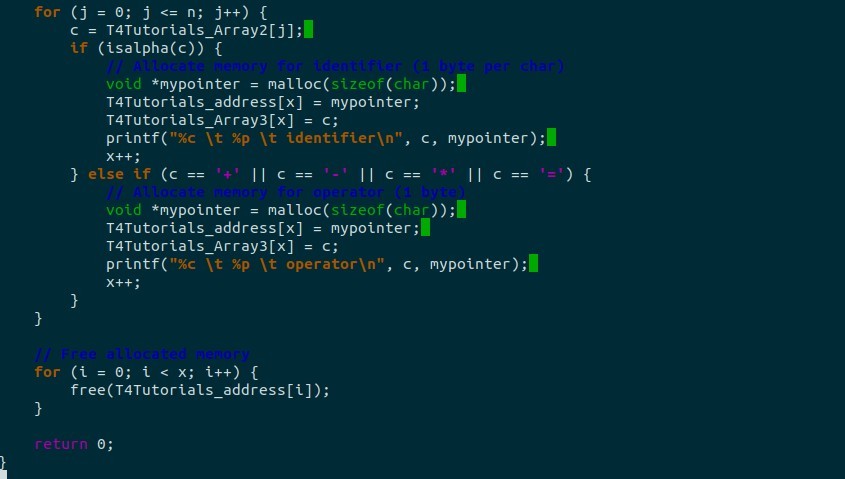
**Results:** The program in YACC for parser generation has been executed successfully

**Lab Exercise- 05**

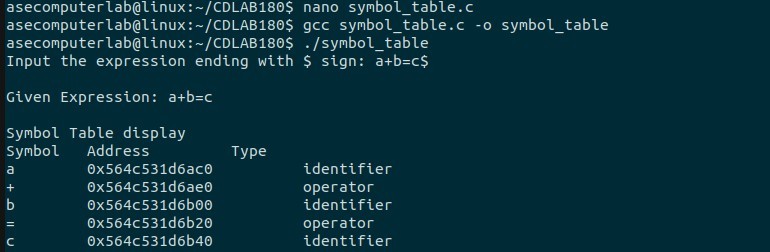
**Aim:** To Implement Symbol Table

**Code:**

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**Output:**

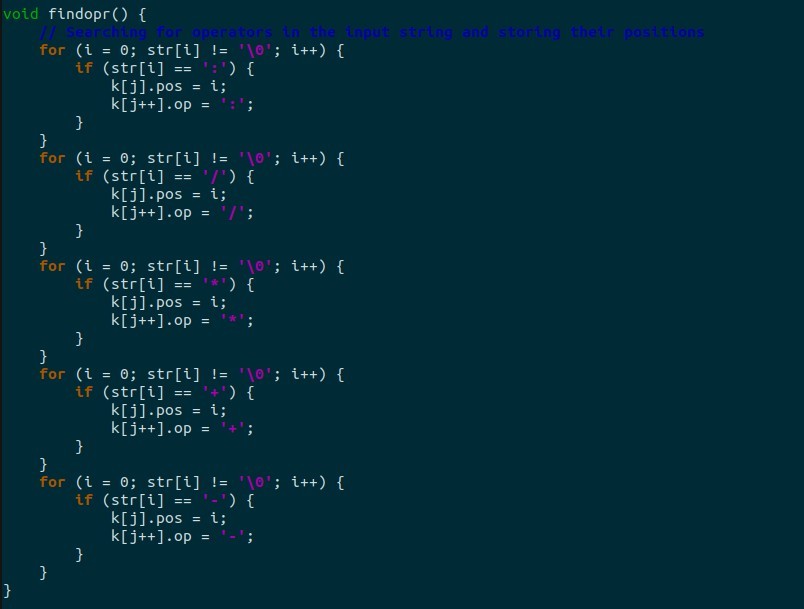
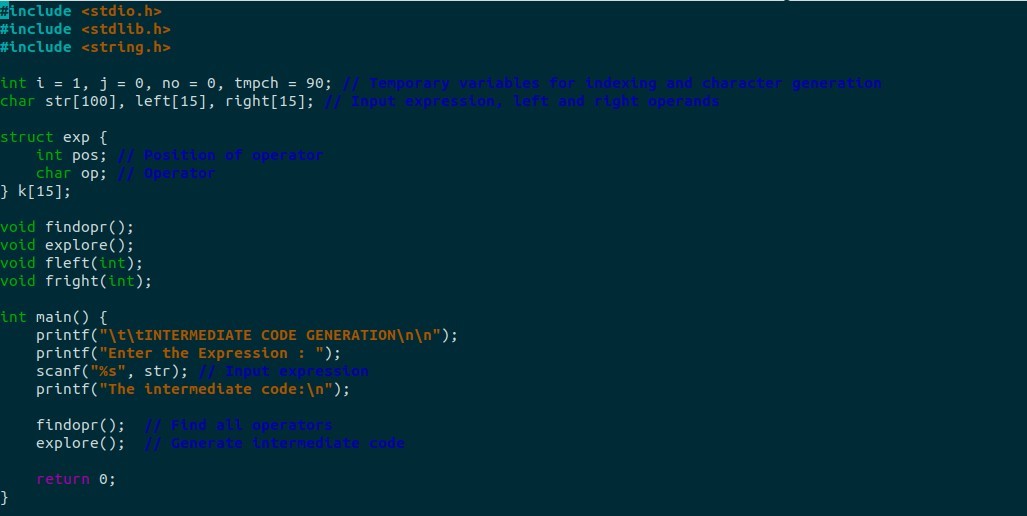
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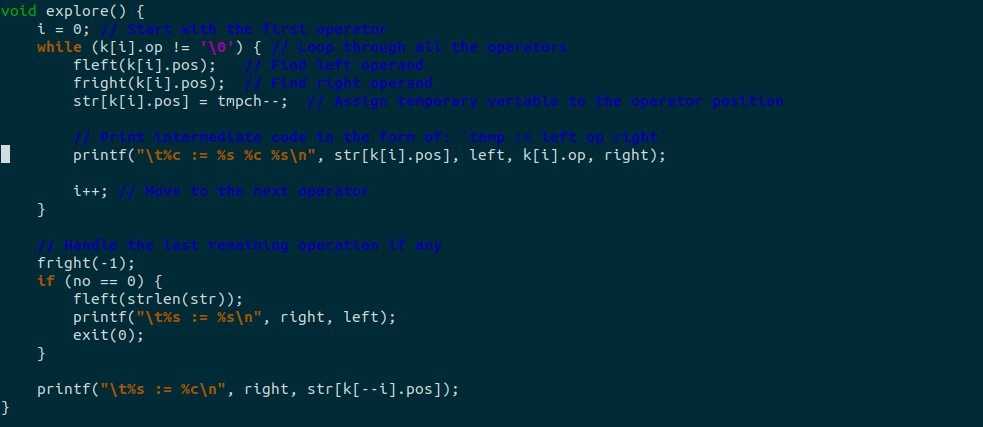
**Result:** Thus, the program to implement symbol table has been executed successfully.

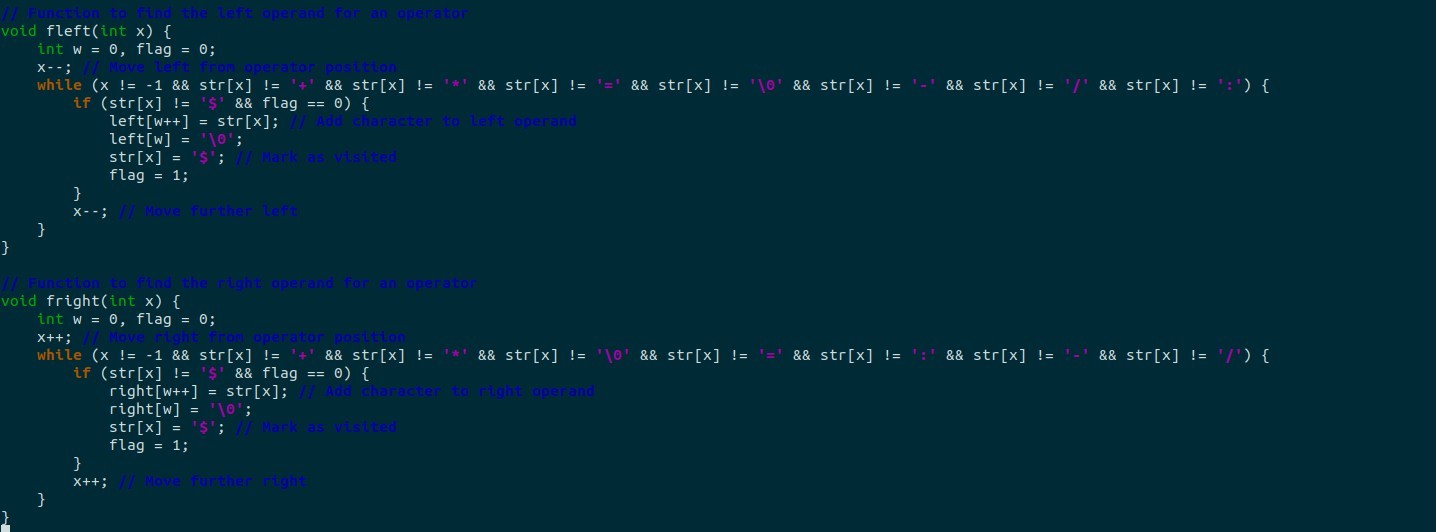
**Lab Exercise- 06**

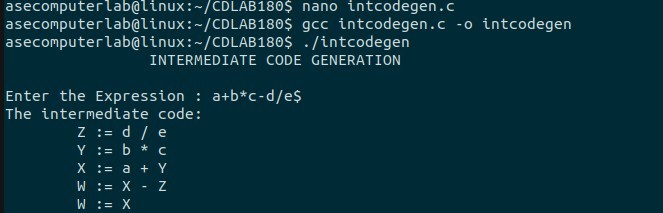
**Aim:** To Implement Intermediate Code generation

**Code:**

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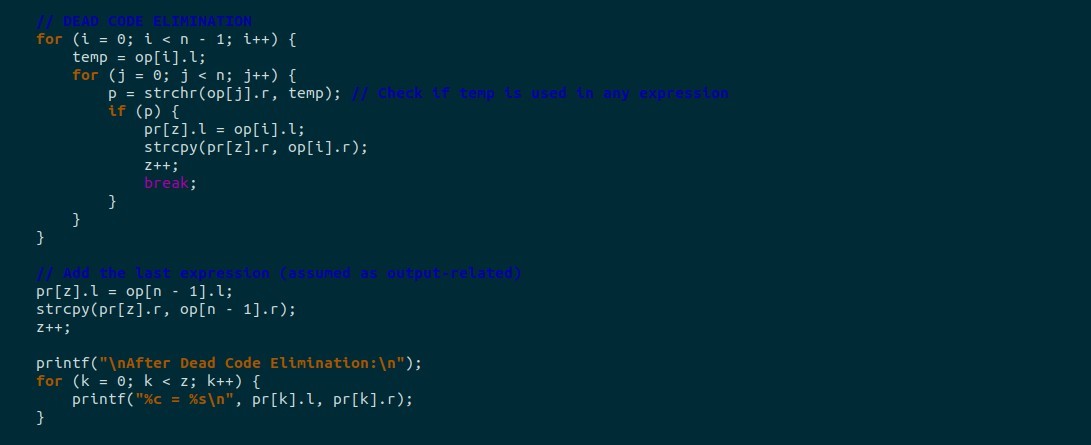
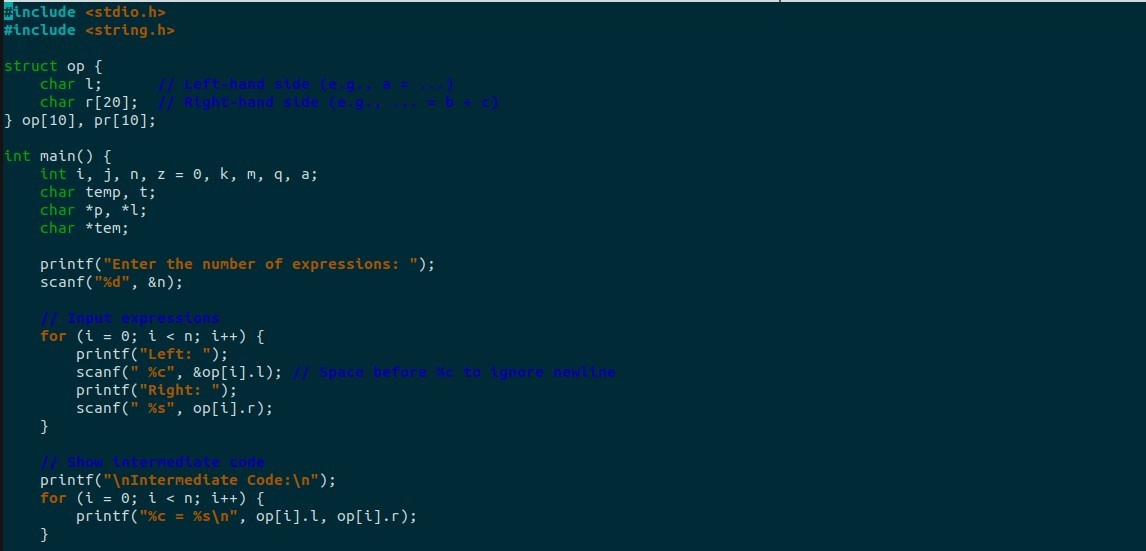
**Output:**

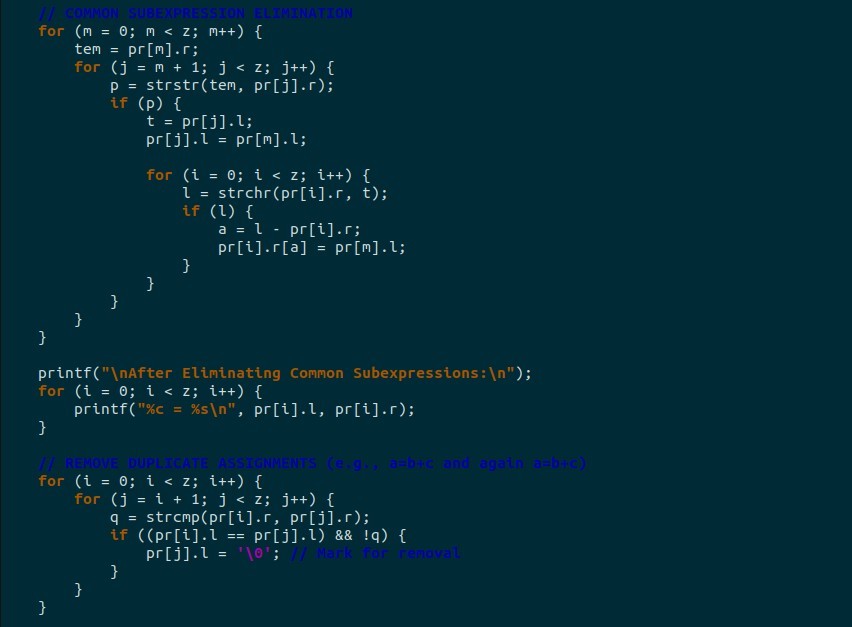
**Result:** Thus, the program to implement intermediate code generation has been executed successfully

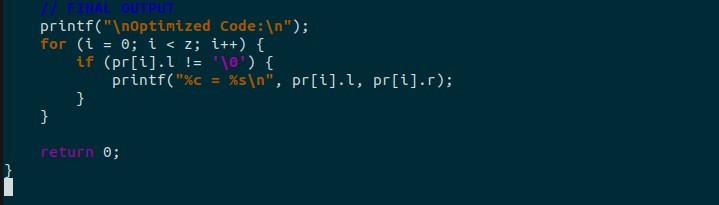
**Lab Exercise- 07**

**Aim:** To implementation of Code Optimization Techniques

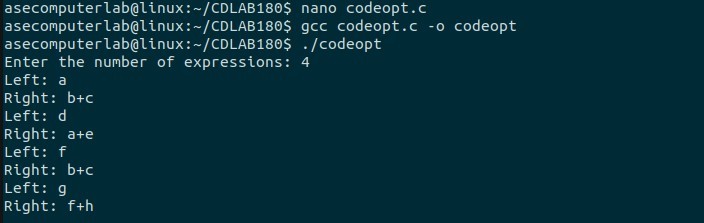
**Code:**

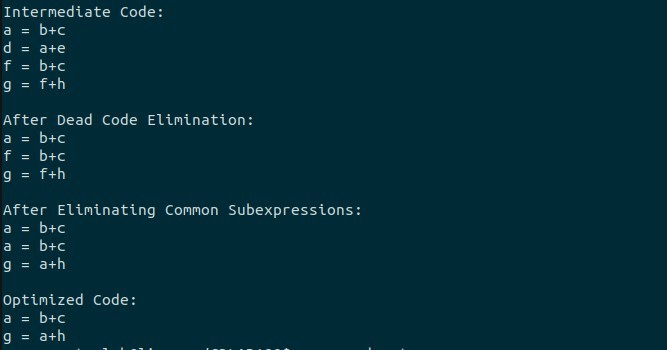
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**Output:**

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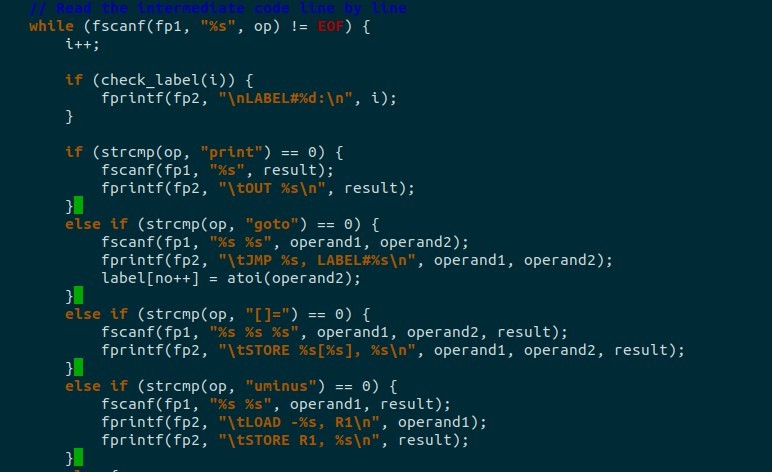
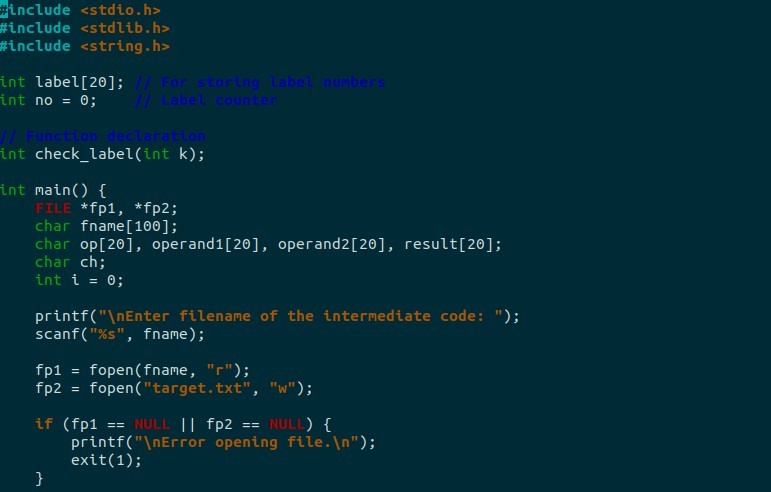


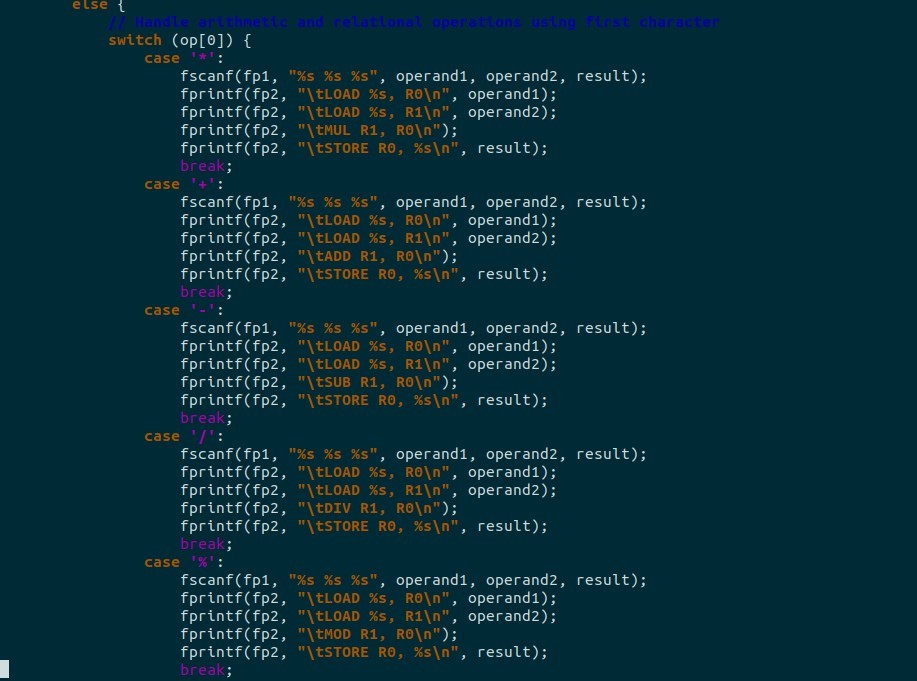
**Result:** Thus, the program to implement code optimization has been executed successfully

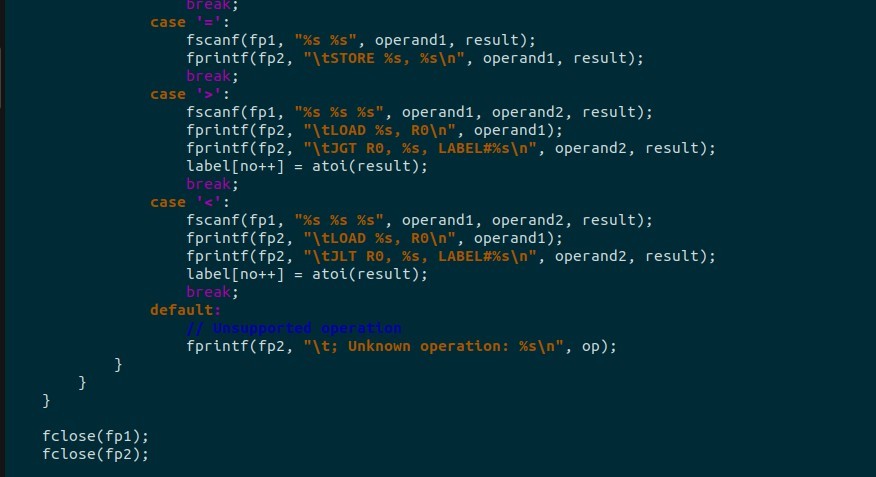
**Lab Exercise- 08**

**Aim:** To write a program that implements the target code generation

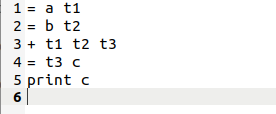
**Code:**

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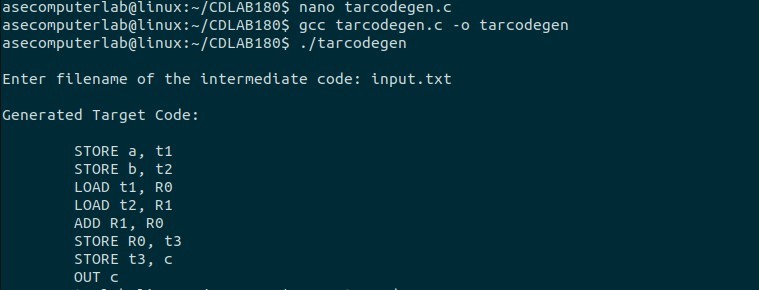


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**Input.txt**

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**Output:**

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**Result**: Thus, the program to implement target code generation has been successfully

executed