```
The Program is : 'int a=5*10 '
All Tokens are :
Valid keyword : 'int'
Valid Identifier : 'a'
Valid operator : '='Valid Integer : '5'
Valid operator : '*'Valid Integer : '10'
```

```
[student@fedora ~]$ vi pg.l
[student@fedora ~]$ lex pg.l
[student@fedora ~]$ cc lex.yy.c
[student@fedora ~]$ ./a.out
Suriya Sundaram
 2
```

```
[root@fedora student]# vi 282_ex3.l   3
[root@fedora student]# lex 282_ex3.l   3
[root@fedora student]# cc lex.yy.c
[root@fedora student]# ./a.out
#include<stdio.h>  void main(){  int a,b;   }
#include<stdio.h> processor Directive
  void return type
 main() Function
{ others
  int keywords
 a Identifier
, others
b Identifier
; others
   } others
```

```
[root@Suri]# vi ex5.c
[root@Suri]# vi ex5.1
[root@Suri]# vi ex5.y
[root@Suri]# lex ex5.1
[root@Suri]# yacc -d ex5.y
[root@Suri]# cc lex.yy.cy.tab.c
[root@Suri]# ./a.out
Enter Any Arithmetic Expression which can have operations Addition, Subtraction, Multiplication, Divison, Modulus and Round brackets:
14+27

Entered arithmetic expression is Invalid

[root@Suri]# ./a.out

Enter Any Arithmetic Expression which can have operations Addition, Subtraction, Multiplication, Divison, Modulus and Round brackets:
a=2+3

Entered arithmetic expression is Valid
```

```
[root@Suri] # vi ex4.1
[root@Suri]# lex ex4.1
[root@Suri]# cc_lex.yy.c
[root@Suri]# ./a.out

5*4
The Answer : 20.000000
2+3
The Answer : 5.000000
8-2
The Answer : 6.000000
6/3
The Answer: 2.000000
```

```
[root@fedora student]# vi 272e6.l
[root@fedora student]#vi 272e6.y
[root@fedora student]#lex 272e6.l
[root@fedora student]#yacc -d 272e6.y
[root@fedora student]#cc lex.yy.c y.tab.c
[root@fedora student]#./a.out


Enter a name to test for an identifier: var

It is a identifier!
```

```
[student@Suri]$ vi 272_ex8.c
[student@Suri]$ cc 272_ex8.c
[student@Suri]$ ./a/out
Enter the Three Address Code:
x=y+z
a=b*x c=a-d
exit

The Equivalent Assembly Code is:
Mov RO, y
Add
z, RO
Mov X, RO
Mov R1, b
Mul RO, R1 Mov RO, a
Sub d, RO
Mov c, RO
```

```
[student@fedora 272]$ vi 272_ex7.l
[student@fedora 272]$ vi 272_ex7.y
[student@fedora 272]$ lex 272_ex7.l
[student@fedora 272]$ yacc -d 272_ex7.y
[student@fedora 272]$ cc lex.yy.c y. tab.c
[student@fedora 272]$ ./a/out

Enter any Arithmetic Expression which can have appratiers addition,subtraction,multiplication,division,modulus and round bracelets:
2+3

Result=5

Entered arithmetic expression is valid

[student@fedora 272]$ ./a/out

Enter any Arithmetic Expression which can have appratiers addition,subtraction, multiplication,division,modulus and round bracelets:
2+3

Result=5

Entered arithmetic expression is valid
```

```
[student@fedora 272]$ vi input.txt
[student@fedora 272]$vi 272e9.c
[student@fedora 272]$cc 272e9.c
[student@fedora 272]$./a.out
[student@fedora 272]$vi output.txt
```

```
[student@fedora 272]$ vi e10.c
[student@fedora 272]$cc e10.c
[student@fedora 272]$./a.out
Enter number of values: 3
Enter left and right values:
        left: a
        right: 9
        left: b
        right: c+d
        left: f
        right: b+e

Intermediate Code:
a=9
b=c+d
f=b+e

Optimized Code:
b=c+d
f=b+e
```

```
a=7
b=10
c=5
d=7
```