Lab program -1 (Output)

vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha1
Enter month (1-12): 7
Enter year: 2024
Enter details for Day 1:
Enter day name: Monday
Enter date: 1
Enter activity description: I practiced Yoga
Enter details for Day 2:
Enter day name: Tuesday
Enter date: 2
Enter activity description: I watched a movie
Enter details for Day 3:
Enter day name: Wednesday
Enter date: 3
Enter activity description: I played Shuttle
Enter details for Day 4:
Enter day name: Thursday
Enter date: 4
Enter activity description: I was going to cubbon park
Enter details for Day 5:
Enter day name: Friday
Enter date: 5
Enter activity description: I was going to my native
Enter details for Day 6:
Enter day name: Saturday
Enter date: 6
Enter activity description: I was farming
Enter details for Day 7:
Enter day name: Sunday
Enter date: 7
Enter activity description: I played Shuttle
Calendar Details for the month 7 in year 2024:
Day: Monday
Date: 1
Activity: I practiced Yoga

Day: Tuesday
Date: 2
Activity: I watched a movie

Enter date: 5
Enter activity description: I was going to my native
Enter details for Day 6:
Enter day name: Saturday
Enter date: 6
Enter activity description: I was farming
Enter details for Day 7:
Enter day name: Sunday
Enter date: 7
Enter activity description: I played Shuttle
Calendar Details for the month 7 in year 2024:
Day: Monday
Date: 1
Activity: I practiced Yoga

Day: Tuesday
Date: 2
Activity: I watched a movie

Day: Wednesday
Date: 3
Activity: I played Shuttle

Day: Thursday
Date: 4
Activity: I was going to cubbon park

Day: Friday
Date: 5
Activity: I was going to my native

Day: Saturday
Date: 6
Activity: I was farming

Day: Sunday
Date: 7
Activity: I played Shuttle

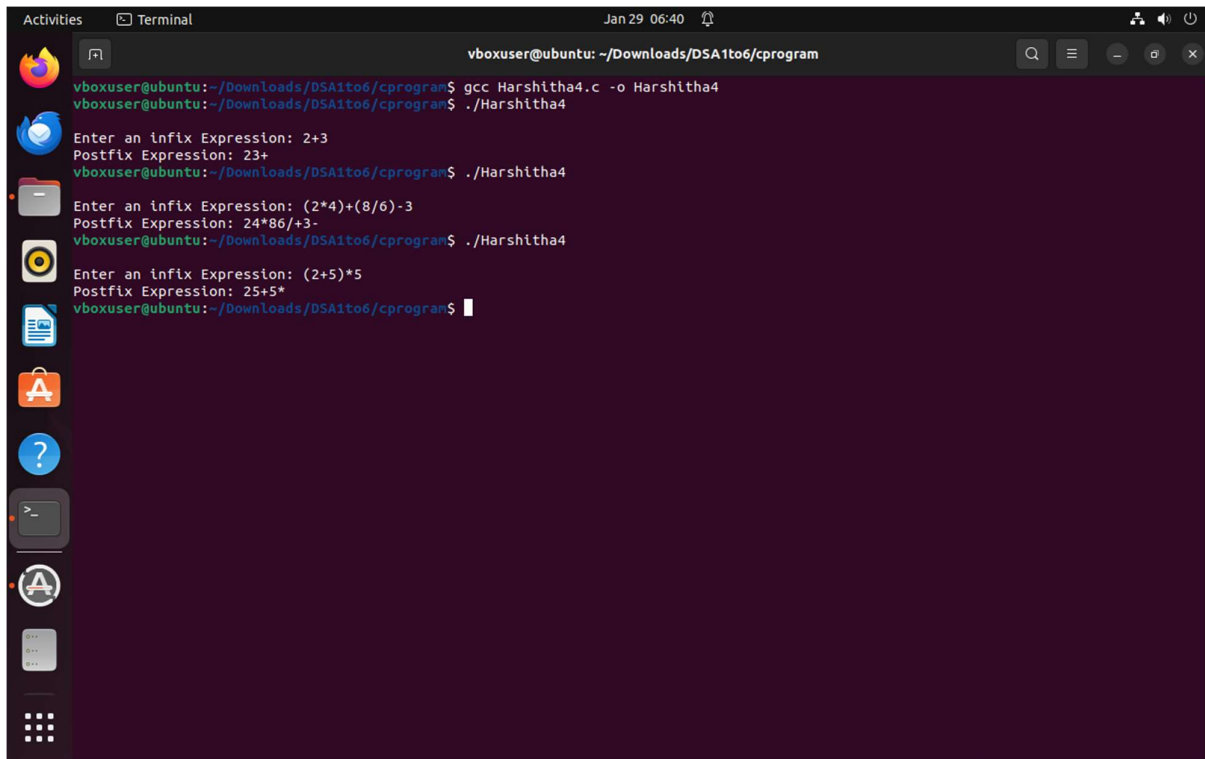vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$

Lab Program 2(Output)



```
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ gcc Harshitha2.c -o Harshitha2
Harshitha2.c: In function 'main':
Harshitha2.c:10:5: warning: implicit declaration of function 'gets'; did you mean 'fgets'? [-Wimplicit-function-declaration]
   10 |     gets(str);
      |     ^~~~
      |     fgets
/usr/bin/ld: /tmp/ccpVBG1w.o: in function `main':
Harshitha2.c:(.text+0x3d): warning: the `gets' function is dangerous and should not be used.
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha2
Enter Main string:
Currently im at Bombay i will be returning to bangalore from Bombay in two weeks
Enter the string to be searched:
Bombay
Enter the string to be replaced:
mumbai
Pattern found at 16
Pattern found at 61
The resultant string is:
Currently im at mumbai i will be returning to bangalore from mumbai in two weeks
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha2
Enter Main string:
chennai
Enter the string to be searched:
madras
Enter the string to be replaced:
hi
Pattern not found
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha2
Enter Main string:
apple
Enter the string to be searched:
p
Enter the string to be replaced:
b
Pattern found at 1
Pattern found at 2
The resultant string is:
abble
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$
```

# Lab Program 3(Output)

```
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ gcc Harshitha3.c -o Harshitha3
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha3
Queue Operations Demo
Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
3
Queue empty

Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
1
Enter the item
10

Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
1
Enter the item
20

Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
3
10      20
Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
2
The deleted item is 10

Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
3
20
Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
2
The deleted item is 20

Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
2
Queue underflow

Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
3
Queue empty

Enter Your Choice :1.Insert     2.Delete       3.Display       4.Exit
```
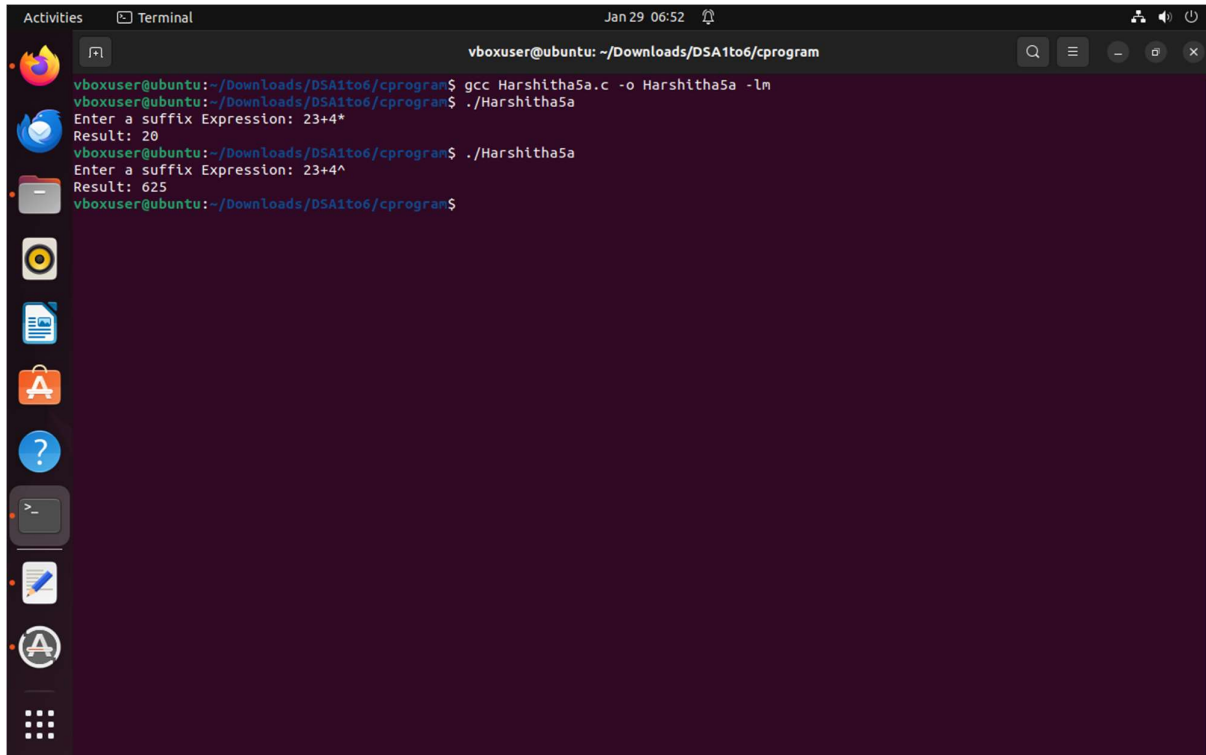
# Lab Program 4(Output)



```
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ gcc Harshitha4.c -o Harshitha4
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha4

Enter an infix Expression: 2+3
Postfix Expression: 23+
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha4

Enter an infix Expression: (2*4)+(8/6)-3
Postfix Expression: 24*86/+3-
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha4

Enter an infix Expression: (2+5)*5
Postfix Expression: 25+5*
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$
```

Lab Program 5a(Output)



Activities    Terminal                                    Jan 29 06:52

vboxuser@ubuntu: ~/Downloads/DSA1to6/cprogram

vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ gcc Harshitha5a.c -o Harshitha5a -lm
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha5a
Enter a suffix Expression: 23+4*
Result: 20
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha5a
Enter a suffix Expression: 23+4^
Result: 625
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$

Lab Program 5b(Output)



```
Activities        Terminal                          Jan 29 06:54

                           vboxuser@ubuntu: ~/Downloads/DSA1to6/cprogram

vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ gcc Harshitha5b.c -o Harshitha5b
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha5b
Enter the number of disks: 3
Steps to solve tower of hanoi with 3 disks :
Move disk 1 from A to C
Move disk 2 from A to B
Move disk 1 from C to B
Move disk 3 from A to C
Move disk 1 from B to A
Move disk 2 from B to C
Move disk 1 from A to C
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha5b
Enter the number of disks: 4
Steps to solve tower of hanoi with 4 disks :
Move disk 1 from A to B
Move disk 2 from A to C
Move disk 1 from B to C
Move disk 3 from A to B
Move disk 1 from C to A
Move disk 2 from C to B
Move disk 1 from A to B
Move disk 4 from A to C
Move disk 1 from B to C
Move disk 2 from B to A
Move disk 1 from C to A
Move disk 3 from B to C
Move disk 1 from A to B
Move disk 2 from A to C
Move disk 1 from B to C
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$
```

# Lab Program – 6 (Output)



```
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ gcc Harshitha6.c -o Harshitha6
vboxuser@ubuntu:~/Downloads/DSA1to6/cprogram$ ./Harshitha6
Queue operations Demo
Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
3
Queue is empty

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
1
Enter the item: 10

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
1
Enter the item: 20

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
3
10     20
Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
2
The deleted item is 10

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
3
20
Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
2
The deleted item is 20

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
2
Queue underflow

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
1
Enter the item: 10

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
1
Enter the item: 200
```



```
Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
1
Enter the item: 20

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
3
10     20
Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
2
The deleted item is 10

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
3
20
Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
2
The deleted item is 20

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
2
Queue underflow

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
1
Enter the item: 10

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
1
Enter the item: 200

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
1
Enter the item: 300

Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
3
10     200     300
Enter your choice: 1. Insert     2. Delete      3. Display      4. Exit
```