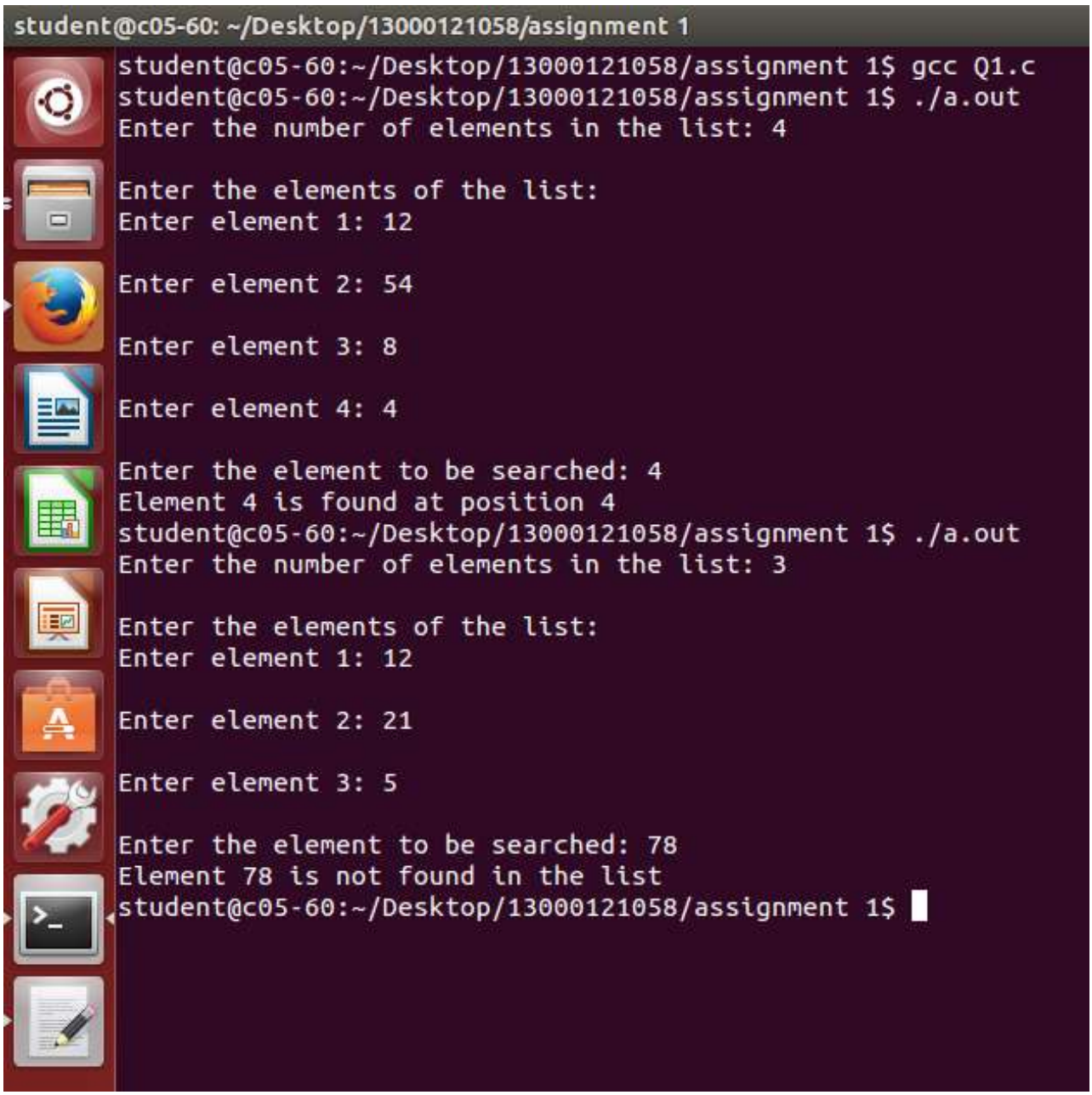
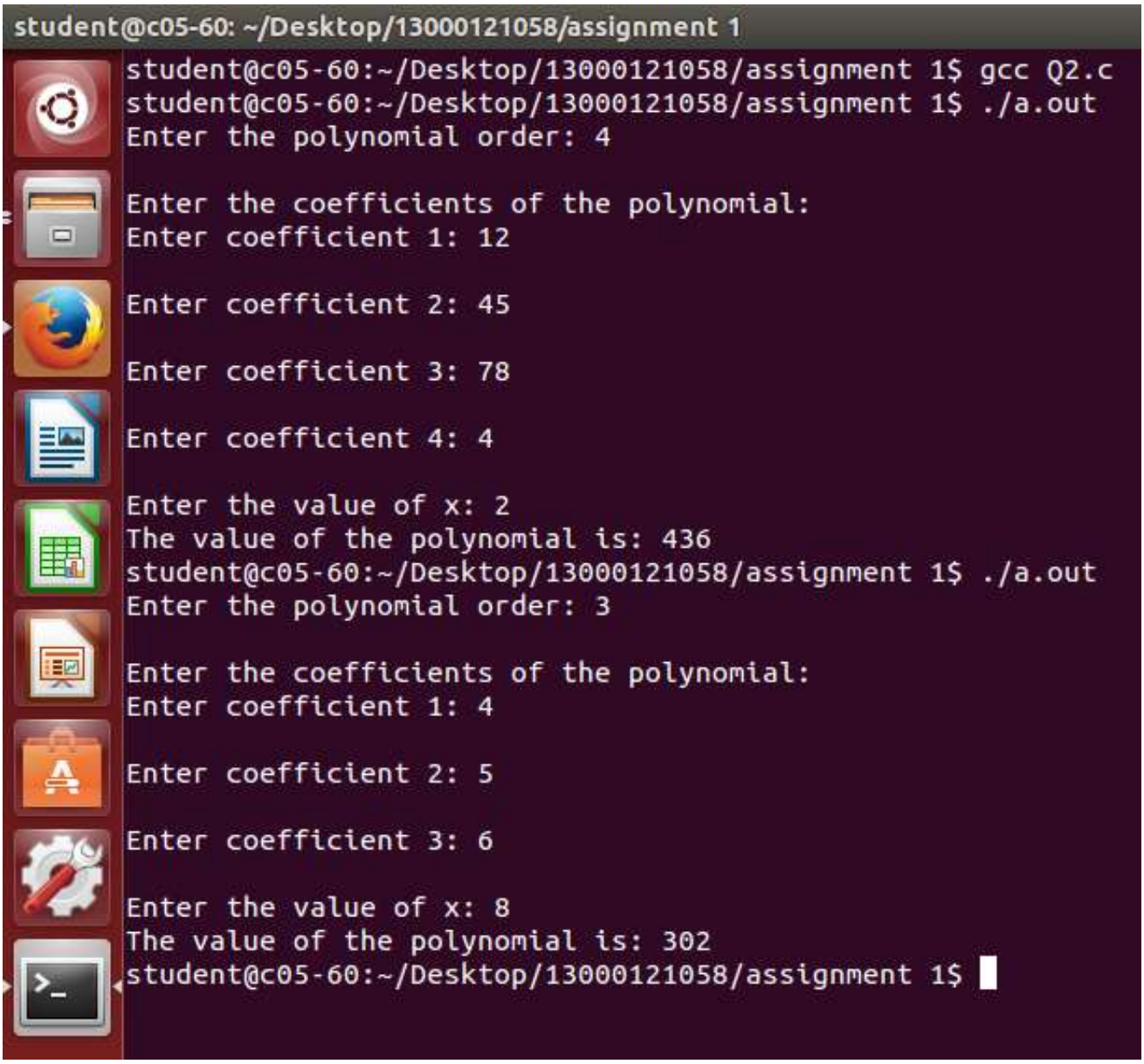
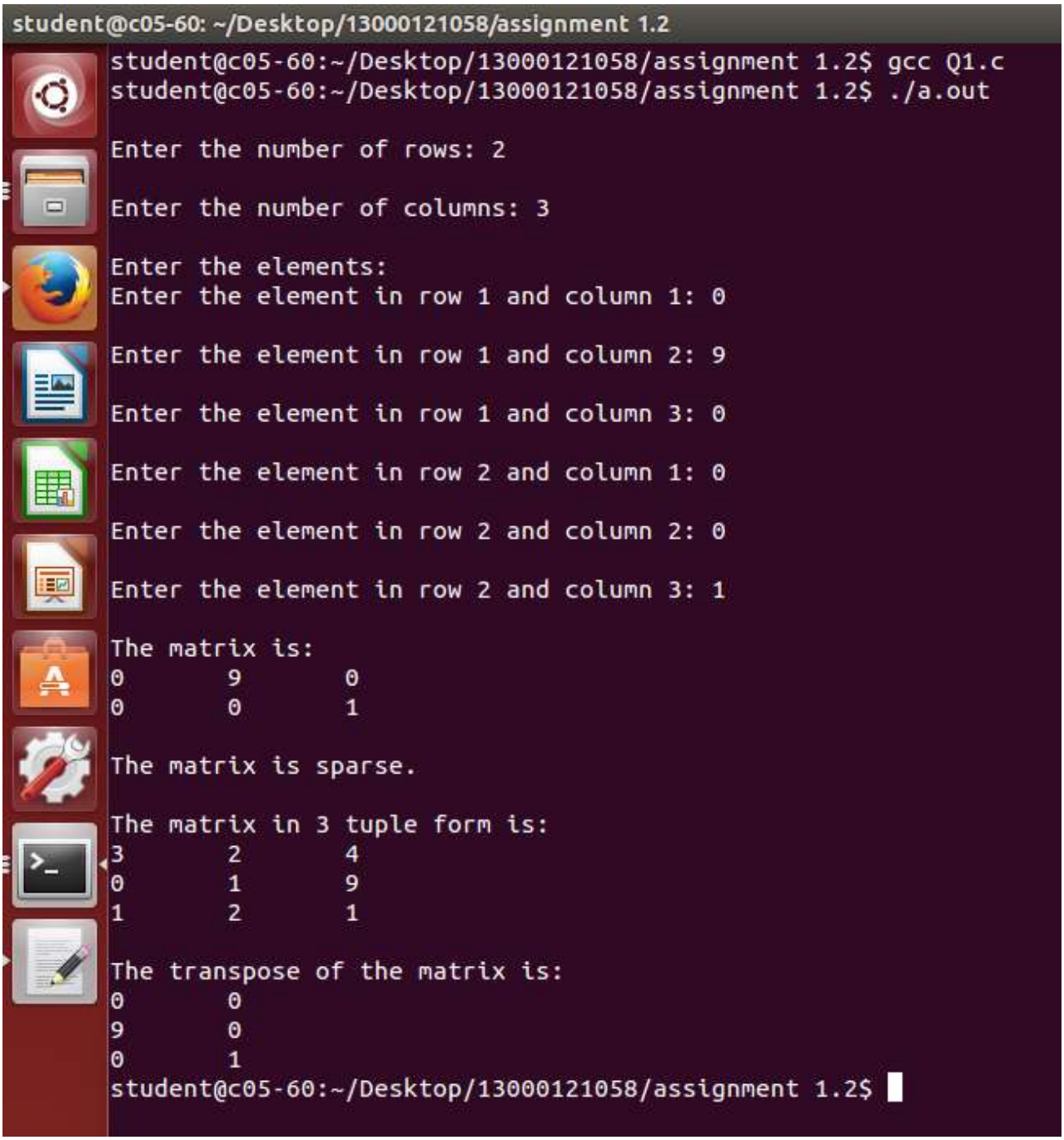
OUTPUT


student@c05-60: ~/Desktop/13000121058/assignment 1
student@c05-60:~/Desktop/13000121058/assignment 1$ gcc Q1.c
student@c05-60:~/Desktop/13000121058/assignment 1$ ./a.out
Enter the number of elements in the list: 4
Enter the elements of the list:
Enter element 1: 12
Enter element 2: 54
Enter element 3: 8
Enter element 4: 4
Enter the element to be searched: 4
Element 4 is found at position 4
student@c05-60:~/Desktop/13000121058/assignment 1$ ./a.out
Enter the number of elements in the list: 3
Enter the elements of the list:
Enter element 1: 12
Enter element 2: 21
Enter element 3: 5
Enter the element to be searched: 78
Element 78 is not found in the list
student@c05-60:~/Desktop/13000121058/assignment 1$

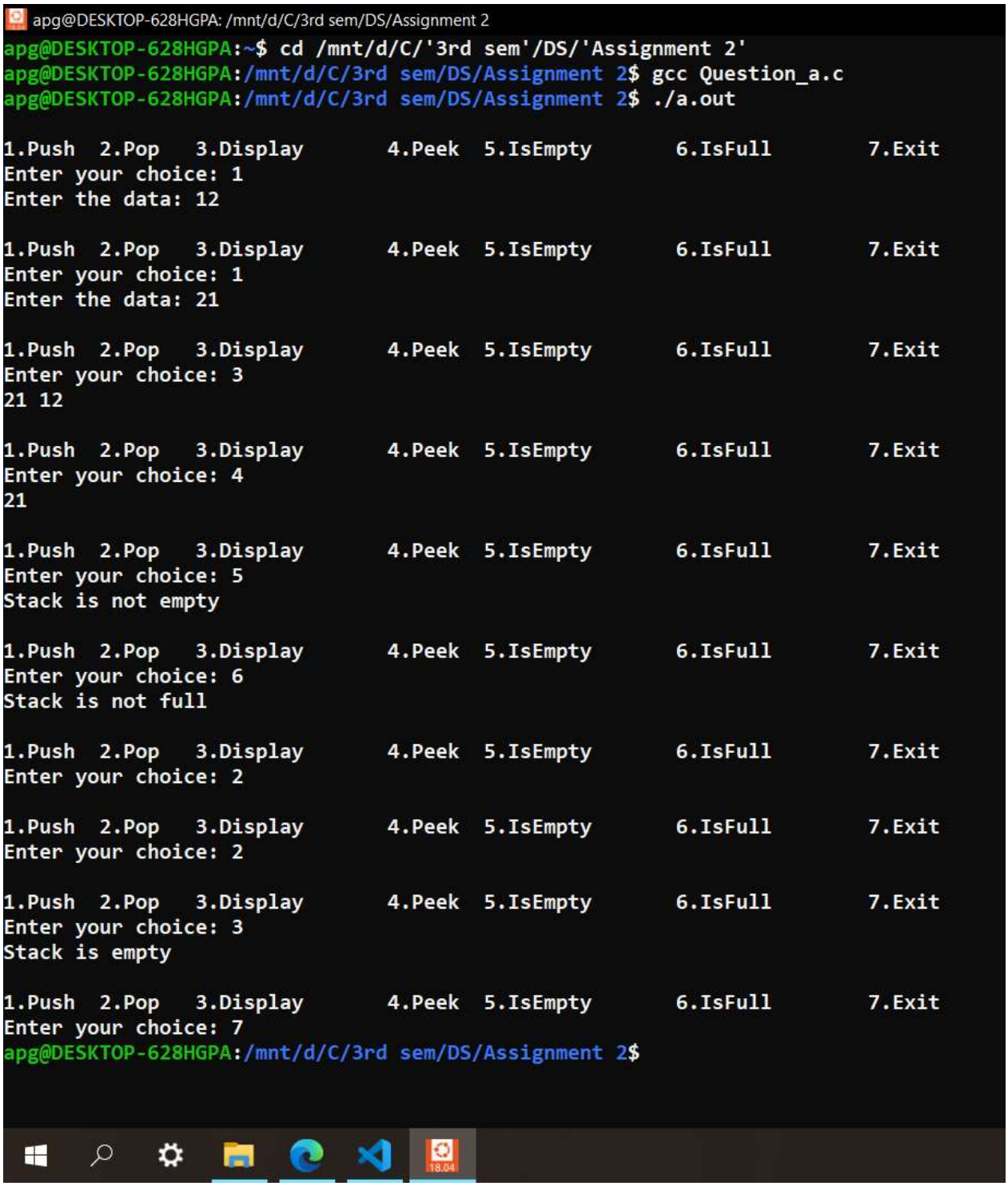
OUTPUT


student@c05-60: ~/Desktop/13000121058/assignment 1
student@c05-60:~/Desktop/13000121058/assignment 1$ gcc Q2.c
student@c05-60:~/Desktop/13000121058/assignment 1$ ./a.out
Enter the polynomial order: 4
Enter the coefficients of the polynomial:
Enter coefficient 1: 12
Enter coefficient 2: 45
Enter coefficient 3: 78
Enter coefficient 4: 4
Enter the value of x: 2
The value of the polynomial is: 436
student@c05-60:~/Desktop/13000121058/assignment 1$ ./a.out
Enter the polynomial order: 3
Enter the coefficients of the polynomial:
Enter coefficient 1: 4
Enter coefficient 2: 5
Enter coefficient 3: 6
Enter the value of x: 8
The value of the polynomial is: 302
student@c05-60:~/Desktop/13000121058/assignment 1$

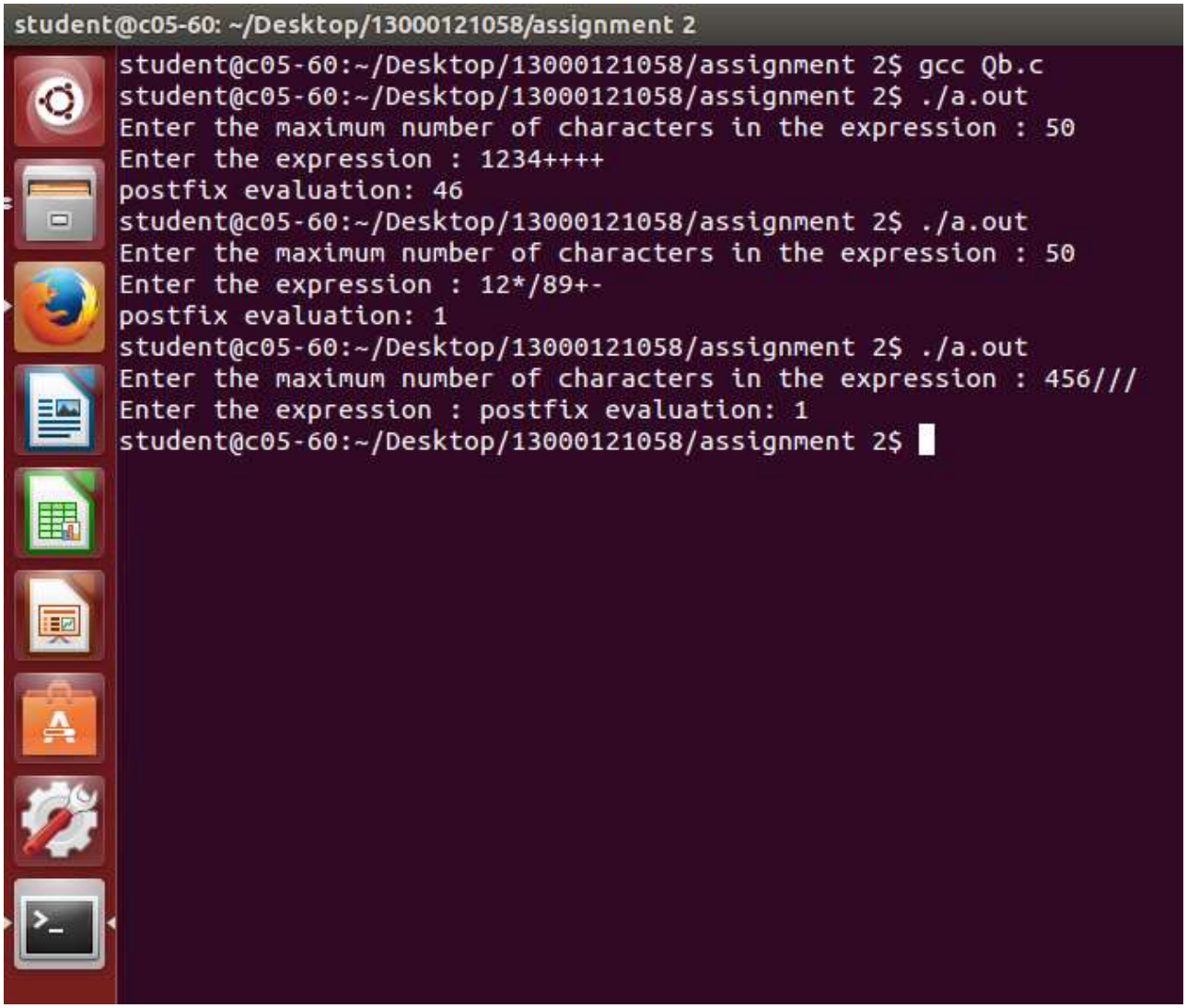
OUTPUT


student@c05-60: ~/Desktop/13000121058/assignment 1.2
student@c05-60:~/Desktop/13000121058/assignment 1.2$ gcc Q1.c
student@c05-60:~/Desktop/13000121058/assignment 1.2$ ./a.out
Enter the number of rows: 2
Enter the number of columns: 3
Enter the elements:
Enter the element in row 1 and column 1: 0
Enter the element in row 1 and column 2: 9
Enter the element in row 1 and column 3: 0
Enter the element in row 2 and column 1: 0
Enter the element in row 2 and column 2: 0
Enter the element in row 2 and column 3: 1
The matrix is:
0 9 0
0 0 1
The matrix is sparse.
The matrix in 3 tuple form is:
3 2 4
0 1 9
1 2 1
The transpose of the matrix is:
0 0
9 0
0 1
student@c05-60:~/Desktop/13000121058/assignment 1.2$

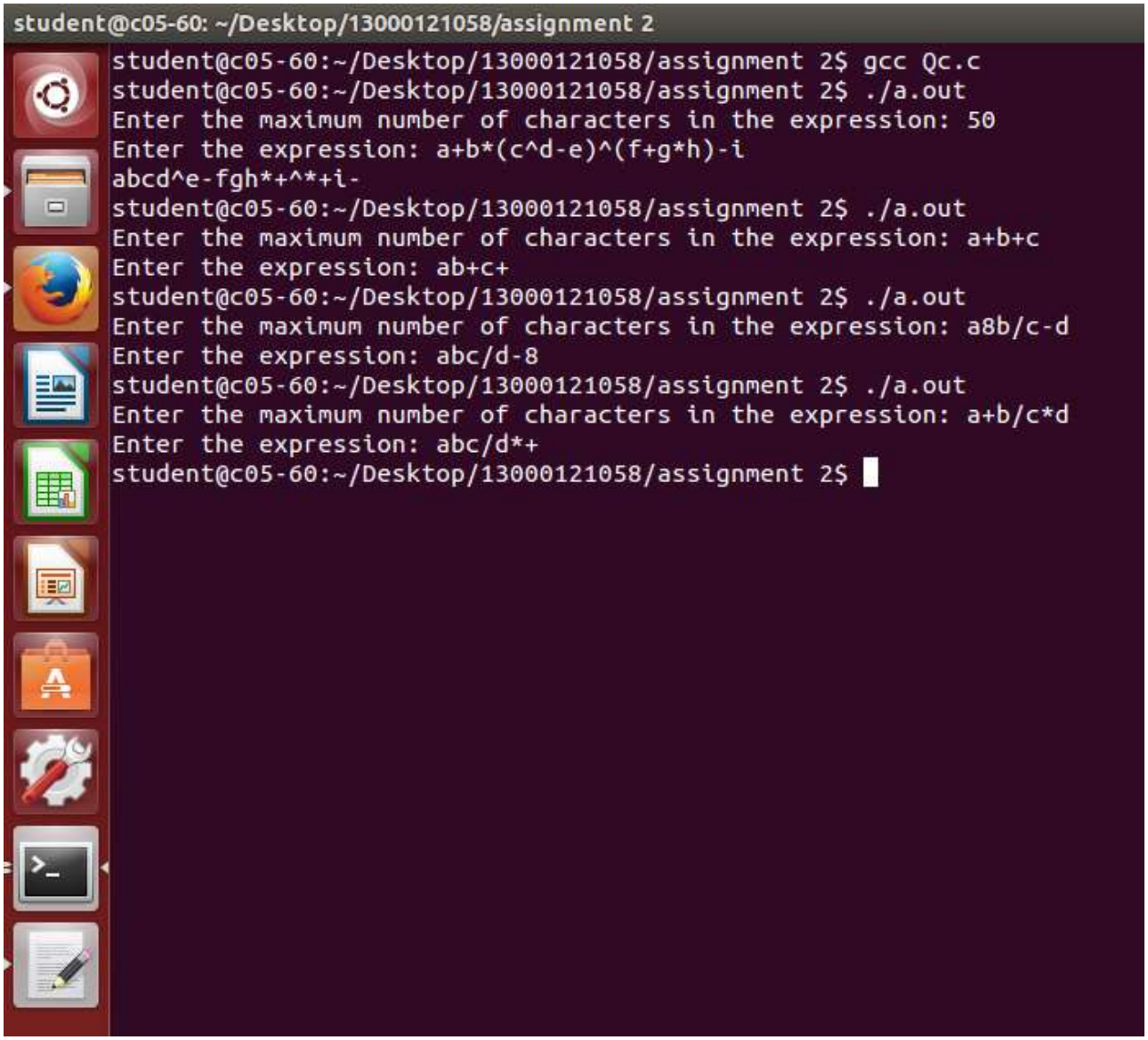
OUTPUT


apg@DESKTOP-628HGPA: /mnt/d/C/3rd sem/DS/Assignment 2
apg@DESKTOP-628HGPA:~$ cd /mnt/d/C/'3rd sem'/DS/'Assignment 2'
apg@DESKTOP-628HGPA:/mnt/d/C/3rd sem/DS/Assignment 2$ gcc Question_a.c
apg@DESKTOP-628HGPA:/mnt/d/C/3rd sem/DS/Assignment 2$ ./a.out
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 1
Enter the data: 12
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 1
Enter the data: 21
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 3
21 12
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 4
21
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 5
Stack is not empty
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 6
Stack is not full
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 2
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 2
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 3
Stack is empty
1.Push 2.Pop 3.Display 4.Peek 5.IsEmpty 6.IsFull 7.Exit
Enter your choice: 7
apg@DESKTOP-628HGPA:/mnt/d/C/3rd sem/DS/Assignment 2$

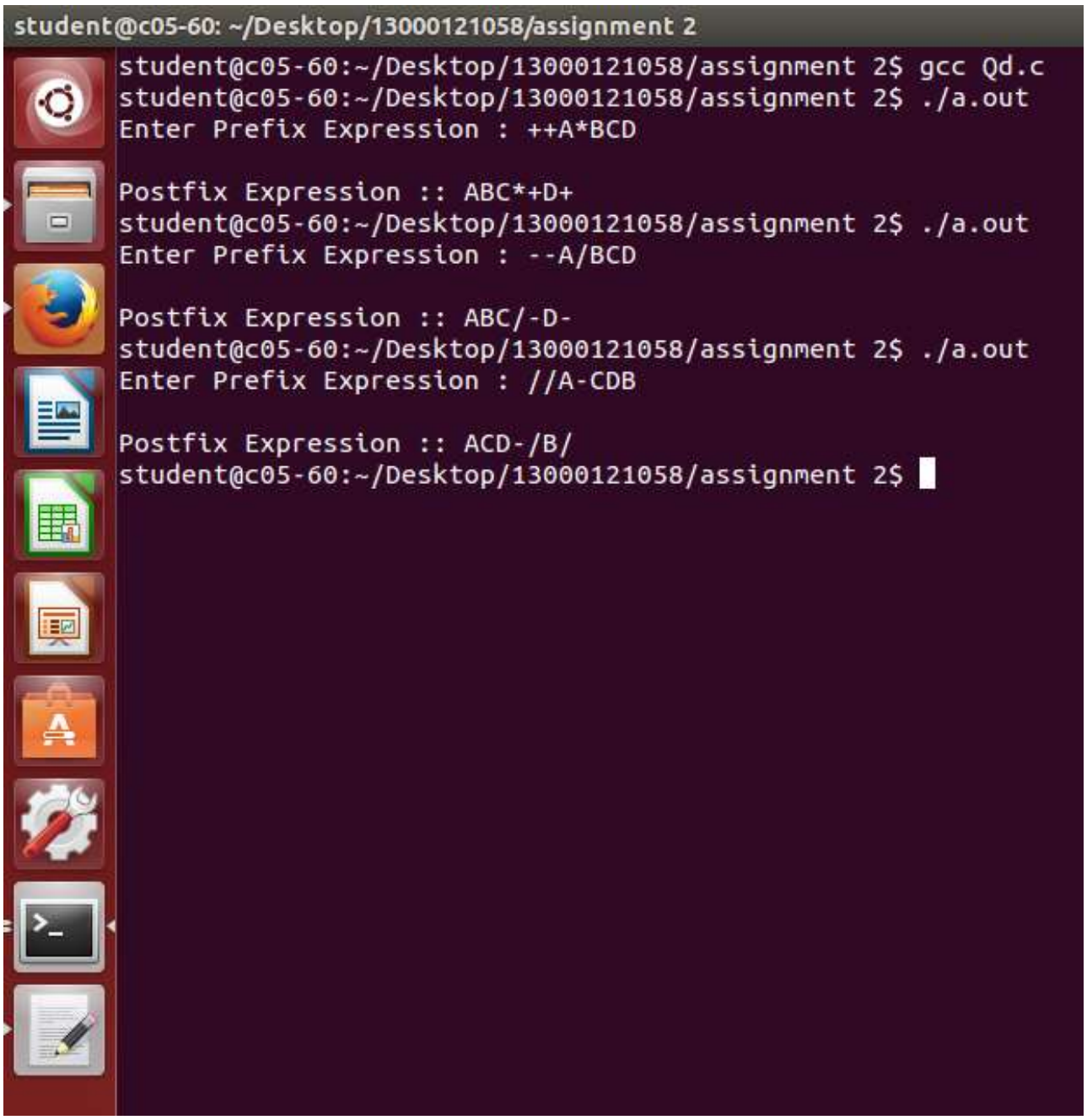
OUTPUT


student@c05-60: ~/Desktop/13000121058/assignment 2
student@c05-60:~/Desktop/13000121058/assignment 2$ gcc Qb.c
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter the maximum number of characters in the expression : 50
Enter the expression : 1234++++
postfix evaluation: 46
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter the maximum number of characters in the expression : 50
Enter the expression : 12*/89+-
postfix evaluation: 1
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter the maximum number of characters in the expression : 456///
Enter the expression : postfix evaluation: 1
student@c05-60:~/Desktop/13000121058/assignment 2$

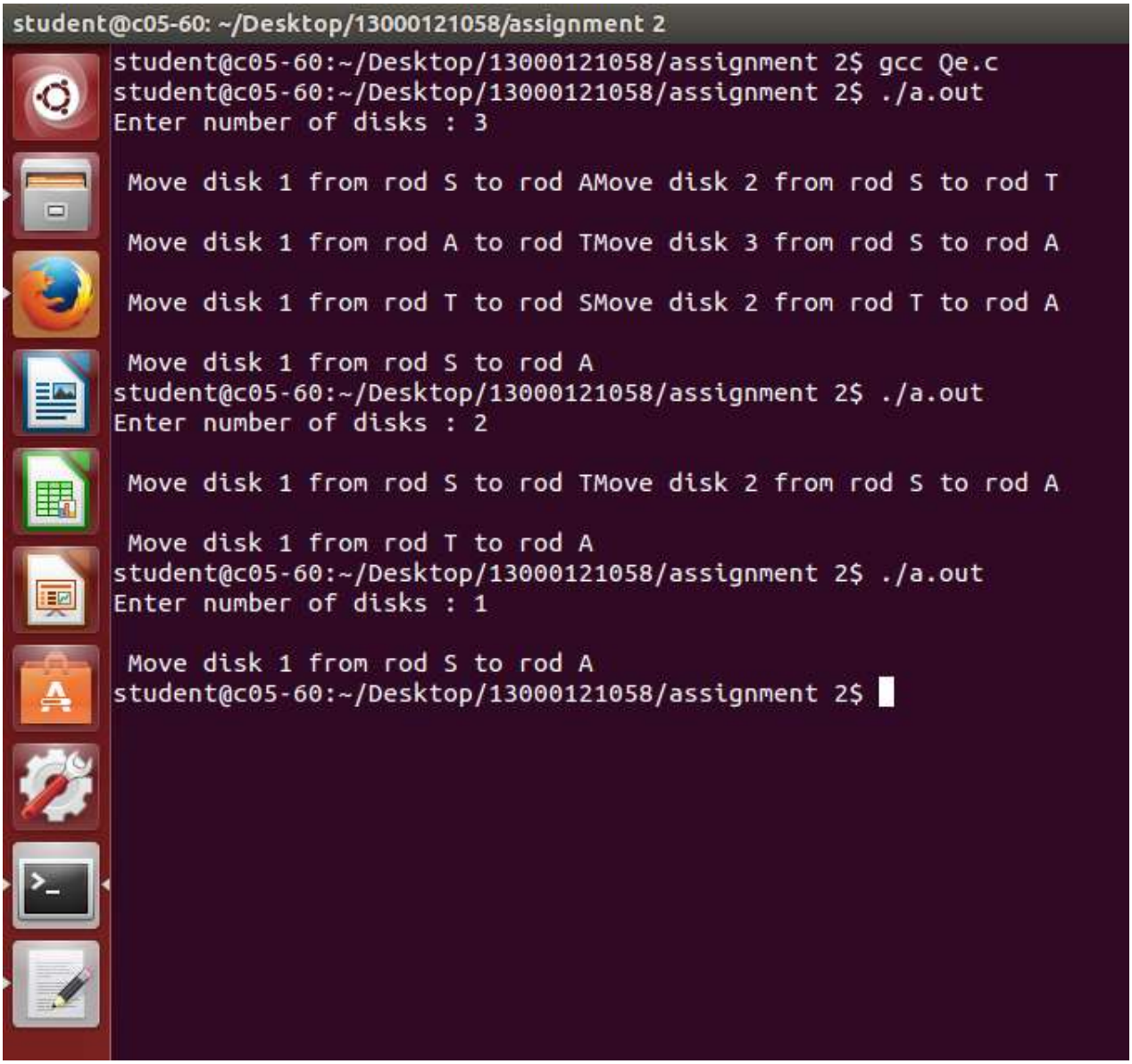
OUTPUT


student@c05-60: ~/Desktop/13000121058/assignment 2
student@c05-60:~/Desktop/13000121058/assignment 2$ gcc Qc.c
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter the maximum number of characters in the expression: 50
Enter the expression: a+b*(c^d-e)^(f+g*h)-i
abcd^e-fgh*+^*+i-
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter the maximum number of characters in the expression: a+b+c
Enter the expression: ab+c+
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter the maximum number of characters in the expression: a8b/c-d
Enter the expression: abc/d-8
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter the maximum number of characters in the expression: a+b/c*d
Enter the expression: abc/d*+
student@c05-60:~/Desktop/13000121058/assignment 2$

OUTPUT


student@c05-60: ~/Desktop/13000121058/assignment 2
student@c05-60:~/Desktop/13000121058/assignment 2$ gcc Qd.c
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter Prefix Expression : ++A*BCD
Postfix Expression :: ABC*+D+
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter Prefix Expression : --A/BCD
Postfix Expression :: ABC/-D-
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter Prefix Expression : //A-CDB
Postfix Expression :: ACD-/B/
student@c05-60:~/Desktop/13000121058/assignment 2$

OUTPUT


student@c05-60: ~/Desktop/13000121058/assignment 2
student@c05-60:~/Desktop/13000121058/assignment 2$ gcc Qe.c
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter number of disks : 3
Move disk 1 from rod S to rod AMove disk 2 from rod S to rod T
Move disk 1 from rod A to rod TMove disk 3 from rod S to rod A
Move disk 1 from rod T to rod SMove disk 2 from rod T to rod A
Move disk 1 from rod S to rod A
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter number of disks : 2
Move disk 1 from rod S to rod TMove disk 2 from rod S to rod A
Move disk 1 from rod T to rod A
student@c05-60:~/Desktop/13000121058/assignment 2$ ./a.out
Enter number of disks : 1
Move disk 1 from rod S to rod A
student@c05-60:~/Desktop/13000121058/assignment 2$