

```
1.push
2.pop
3.display
4.exit
enter your choice: 1
enter the number to push: 1

enter your choice: 1
enter the number to push: 2

enter your choice: 1
enter the number to push: 3

enter your choice: 1
enter the number to push: 4

enter your choice: 1
enter the number to push: 5

enter your choice: 1
enter the number to push: 6
stack overflow
enter your choice: 2
popped item=5
enter your choice: 2
popped item=4
enter your choice: 3
content of stack is
|1|
|2|
|3|

enter your choice: 4
```

```
1.enqueue
2.dequeue
3.display
4.exit
enter your choice: 2
queue underflow
enter your choice: 1
enter the number to enqueue: 1

enter your choice: 1
enter the number to enqueue: 2

enter your choice: 1
enter the number to enqueue: 3

enter your choice: 1
enter the number to enqueue: 4

enter your choice: 1
enter the number to enqueue: 5

enter your choice: 1
enter the number to enqueue: 6
queue overflow
enter your choice: 2
dequeued item=1
enter your choice: 2
dequeued item=2
enter your choice: 3
content of queue is
|3|
|4|
|5|
```

```
1.enqueue
2.dequeue
3.display
4.exit
enter your choice: 1
enter the number to push: 1

enter your choice: 1
enter the number to push: 2

enter your choice: 1
enter the number to push: 3

enter your choice: 1
enter the number to push: 4

enter your choice: 1
enter the number to push: 5
queue overflow
enter your choice: 2
dequeued item=1
enter your choice: 2
dequeued item=2
enter your choice: 3
content of queue is
|3|
|4|
enter your choice: 4
```

```
Enter a number: 5
Factorial of 5 is 120
```

```
Enter a number: 5
Factorial of 5 is 15
```

```
Enter two numbers: 4
5
Product of 4 and 5 is 20
```

```
Enter the number of disks: 3
Steps to solve the Tower of Hanoi problem 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
```

```
how many element: 5  
enter array element: 5 6 7 8 9  
enter the search key: 9  
search successful and found at location 5
```

```
Enter the value of n: 5  
Enter the array elements: 1 3 2 4 5  
Enter the search key: 5  
Key 5 is at location 4
```

```
Enter the number of terms: 7  
Fibonacci Series up to 7 terms:  
0, 1, 1, 2, 3, 5, 8,
```

```
enter the no of element: 5
```

```
enter the element:
```

```
1
```

```
4
```

```
3
```

```
2
```

```
8
```

```
the elements after sorting are
```

```
1
```

```
2
```

```
3
```

```
4
```

```
8
```

Enter the number of elements: 6

Enter the elements:

1

3

2

4

5

7

The elements after sorting are:

1

2

3

4

5

7

```
Enter the number of elements: 7
```

```
Enter the elements:
```

```
1
```

```
2
```

```
3
```

```
6
```

```
5
```

```
4
```

```
7
```

```
The elements after sorting are:
```

```
1
```

```
2
```

```
3
```

```
4
```

```
5
```

```
6
```

```
7
```



```
Enter the number of elements: 8
```

```
Enter 8 elements:
```

```
1
```

```
2
```

```
3
```

```
8
```

```
7
```

```
6
```

```
5
```

```
4
```

```
Original array:
```

```
1 2 3 8 7 6 5 4
```

```
Sorted array:
```

```
1 2 3 4 5 6 7 8
```

```
enter the no of element: 9
```

```
enter 9 elements 1
```

```
2
```

```
3
```

```
4
```

```
9
```

```
8
```

```
7
```

```
6
```

```
5
```

```
elements after sort are
```

```
1
```

```
2
```

```
3
```

```
4
```

```
5
```

```
6
```

```
7
```

```
8
```

```
9
```

Menu:

1. Add at beginning
2. Add at end
3. Add at specific position
4. Delete from beginning
5. Delete from end
6. Delete from specific position
7. Display the list
8. Exit

Enter your choice: 1

Enter the number: 2

Enter your choice: 1

Enter the number: 3

Enter your choice: 1

Enter the number: 4

Enter your choice: 2

Enter the number: 5

Enter your choice: 7

4 -> 3 -> 2 -> 5 -> NULL

Enter your choice: 8

Menu:

1. Add at beginning
2. Add at end
3. Delete from beginning
4. Delete from end
5. Display
6. Exit

Enter your choice: 1

enter the number: 2

Enter your choice: 2

enter the number: 3

Enter your choice: 4

the deleted item is 3

Enter your choice: 5

2

Enter your choice: 6

Menu:

1. Add at beginning
2. Add at end
3. Delete from beginning
4. Delete from end
5. Display
6. Exit

Enter your choice: 1
enter the number: 2

Enter your choice: 1
enter the number: 3

Enter your choice: 1
enter the number: 4

Enter your choice: 2
enter the number: 3

Enter your choice: 3
deleted item is 4

Enter your choice: 5
3 2 3

Enter your choice: 6

Menu:

1. Push
2. Pop
3. Display
4. Exit

Enter your choice: 1
enter the number: 2

Enter your choice: 1
enter the number: 3

Enter your choice: 1
enter the number: 4

Enter your choice: 2
deleted item is 4

Enter your choice: 3
3 2

Enter your choice: 4

Menu:

1. Enqueue
2. Dequeue
3. Display
4. Exit

Enter your choice: 1

Enter the number: 1

Enter your choice: 1

Enter the number: 2

Enter your choice: 1

Enter the number: 3

Enter your choice: 2

the deleted item is 1

Enter your choice: 3

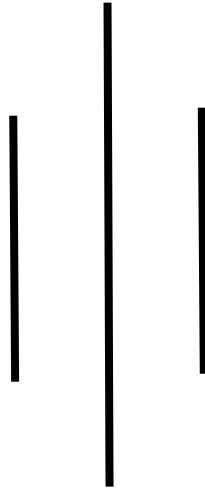
Queue elements are:

2 3

Enter your choice: 4

Exiting...

Lab Report
Of
Data Structure and Algorithm
Subject Code: CSC211



Submitted To
NAGARJUNA COLLEGE OF IT
(AFFILIATED TO TRIBHUVAN UNIVERSITY)

Shankhamul, Lalitpur

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College Roll Number:29

**Program: Bachelor of Science in Computer Science and
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