

**RUSTAMJI INSTITUTE OF TECHNOLOGY**  
**BSF ACADEMY, TEKANPUR**

**Practical File for  
CS303 (Data Structure)**



Submitted by

*Name of Student (Enrolment No.)*

B.Tech. Computer Science & Engineering 3<sup>rd</sup> Semester  
(2023-2027 batch)

Subject Teacher  
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File Checked by  
Mr. Yashwant Pathak



## Self-Declaration Certificate

I, [Student's Name], hereby declare that I have completed the lab work of CS303 (Data Structure) at my own effort and understanding.

I affirm that the work submitted is my own, and I take full responsibility for its authenticity and originality.

Date:

[Student's Signature]

[Student's Name]

[Enrolment No.]

## **ENVORIONMENT USED**

**Hardware Configuration** : <hardware configuration of machine>

**C Compiler** : GCC Compiler

**User Interface** : <name of user interface used>

## **GROUP MEMBERS**

**Member-1** : Name & Enrolment No.

GitHub Repository URL

**Member-2** : Name & Enrolment No.

GitHub Repository URL

**Member-3** : Name & Enrolment No.

GitHub Repository URL

**Member-4** : Name & Enrolment No.

GitHub Repository URL

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2	Implementation of Linked List using Pointers.		CO-1
3	Implementation of Doubly Linked List using Pointers.		CO-1
4	Implementation of Circular Single Linked List using Pointers.		CO-1
5	Implementation of Circular Doubly Linked List using Pointers.		CO-1

## Section-B (Stack)

S. No.	Practical Description	Page Nos.	COs
1	Implementation of Stack using Array.		CO-2
2	Implementation of Stack using Pointers.		CO-2
3	Program for Tower of Hanoi using recursion.		CO-2
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## Section-C (Queue)

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## **Section-D (Trees & Graphs)**

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## **Section-E (Sorting & Searching)**

<b>S. No.</b>	<b>Practical Description</b>	<b>Page Nos.</b>	<b>COs</b>
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2	Implementation of Binary Search on a list of numbers stored in an Array		CO-5
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4	Implementation of Linear Search on a list of strings stored in an Array  OR  Implementation of Binary Search on a list of strings stored in a Single Linked List		CO-5

## Experiment No.: 1

### **Program Description:**

Implementation of Linked List using array.

### **Solution:**

### **Output:**