**S.Y. B. Tech. Academic Year 2022\_23 Trimester: III**

**Fundamentals of Data Structures**

**LABORATORY WRITE UP**

###### Experiment Number: 04

**TITLE: Implementation of Bucket sorting**

**PROBLEM STATEMENT**:

Write a C program to store first year percentage of students in array. Write function for sorting array of floating-point numbers in ascending order using bucket sort and display top five scores.

**OBJECTIVE:**

1. To implement and analyze bucket sort.

**THEORY: *//To be Written by Students***

***// Write theory by elaborating below points***

* Bucket Sorting (Explain with example)

**IMPLEMENTATION:**

* **PLATFORM:** 
  + 64-bit Open source Linux or its derivatives.
  + Open Source C Programming tool like gcc/Eclipse Editor.
* **TEST CONDITIONS:-**

1.Input at least 10 records.

4.Test bucket sorting methods for at least 10 records.

* **PSEUDO CODE: *//To be Written by Students***

Write pseudocode for bucket sort.

* **TIME COMPLEXITY: *//To be Written by Students***

Find out the time complexity of above operations

* **CONCLUSION:**

Thus, implemented bucket sort algorithm

* **FAQs *//To be Written by Students***

1. What are the applications of bucket sort?

2. Compare bucket sorting with other sorting methods?