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| PICTLOGO | PUNE INSTITUTE OF COMPUTER TECHNOLOGY  PUNE - 411043 | | |
| Department of Electronics & Telecommunication | | |
| ASSESMENT YEAR: 2024-2025 | CLASS: SE | |
| SUBJECT: DATA STRUCTURES | | |
| **EXPT No:** | LAB Ref: SE/2024-25/ | | Starting date: |
|  | Roll No:22168 | | Submission date: |
| **Title:** | **Quick Sort** | | |
| **Problem Statement** | Perform the experiment of Quick sort using C Language through virtual platform | | |
| Refer lab manual for below | | | |
| **Prerequisites:** | 1. Basic knowledge of C programming – Understanding of variables, loops and conditional statements. | | |
| 2. Functions – Knowledge of how to define and call functions in C. | | |
| 3. Basic knowledge of different sorting techniques on arrays. | | |
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| **Objectives:** | 1. Time and Space Complexity: - To find out running time of sorting process | | |
| 2. Comparison with other algorithms: - Compare quick sort with other algorithms | | |
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| **Theory:** | | | |
|  | Done on ruled sheets. | | |
| **Flow-chart**  **ERRORS** | **(Extra sheet may be attached)**  **(if any)** | | |
| **REMEDY** | **(if any)** | | |
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| **CONCLUSION:** | | | |
|  | **This experiment primarily focused on the mechanism of quick sort in arrays.** | | |
| **First, how the quick sort method works, and how it is different from other sorting techniques that can be implemented on arrays was discussed. Then, the time complexity and space complexity of quick sort was compared with other sorting techniques available, thereby learning its advantages and disadvantages.** | | |
| **After a thorough grasp and knowledge of the quick sort method on arrays was achieved, it was practically implemented on virtual lab.** | | |
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| **REFERENCES: refer lab manual for the same** | | | |
|  | **1. GeekforGeeks** | | |
| **2. Hacker Rank** | | |
| **3. StudytoNight** | | |
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| **Continuous Assessment for DS AY: 2024-25** | | | |
| **RPP (5)** | **SPO (5)** | **Total (10)** | **Signature:** |
|  |  |  | **Assessed By: Dr. V. B. Vaijapurkar** |
| **Start date** | **Submission date** | | **Date:** |
|  |  | |  |
| **\*Regularity, Punctuality, performance**  **\*Submission, Presentation, orals** | | | |