



# Problem Solving With C - UE24CS151B

## Sorting

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1. Why Sorting?
2. Sorting Algorithms
3. Selection Sort Algorithm
4. Demonstration of C Code

### Why Sorting ?

- To access the data in a very quick time
- Think about searching for something in a sorted drawer and unsorted drawer
- If the large data set is sorted based on any of the fields, then it becomes easy to search for a particular data in that set.

### Sorting Algorithms

- Bubble Sort
- Insertion Sort
- Quick Sort
- Merge Sort
- Radix Sort
- **Selection Sort**
- Heap Sort

### Selection Sort Algorithm

- The algorithm maintains two sub-arrays in a given array
  - The sub-array which is already sorted.
  - Remaining sub-array which is unsorted.
- In every iteration, the minimum element (considering ascending order) from the unsorted sub-array is picked and moved to the sorted sub-array.

# PROBLEM SOLVING WITH C

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### Demonstration of C Code

- Demo of Selection sort on Array of integers



## THANK YOU

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