

## PRACTICAL ONE

Name

Batch

Roll nO

Q1. Write a program to find Minimum and Maximum element in the given array using Min-Max Algorithm based on Divide and Conquer Strategy.

**About min-max**

**Some theory about min-max**

**Output**

Include the following points in your submission

- 1. Input:**
- 2. Output:**
- 3. Table**

| No of input | Min-max Linear (Time) | Min-max (DAC)<br>Time |
|-------------|-----------------------|-----------------------|
| 100         | 35sec                 | 30sec                 |
| 150         |                       |                       |
| 200         |                       |                       |
| 250         |                       |                       |
| 1000        |                       |                       |

- 4. Graph**
- 5. Analysis for your result (One paragraph)**

Sample result

OUTPUT:

Enter number of test cases

5

Enter size of array

10000

Generating array of 10000 random numbers

Linear Approach: Min=193686 Max=2147482951, Time required:

DAC Approach: Min=193686 Max=2147482951, Time required:

Enter size of array

20000

Generating array of 20000 random numbers

Linear Approach: Min=35442 Max=2147350758

DAC Approach: Min=35442 Max=2147350758

Enter size of array

30000

Generating array of 30000 random numbers

Linear Approach: Min=6379 Max=2147439130

DAC Approach: Min=6379 Max=2147439130

Enter size of array

40000

Generating array of 40000 random numbers

Linear Approach: Min=60275 Max=2147474125

DAC Approach: Min=60275 Max=2147474125

Enter size of array

50000

Generating array of 50000 random numbers

Linear Approach: Min=31186 Max=2147480311

DAC Approach: Min=31186 Max=2147480311