

# Sortari

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# Sortari implementate in Python

- Radix Sort
- Merge Sort
- Shell Sort
- Quick Sort
- Counting Sort

# Timpul de rulare pentru Testul 1

$N=100$ ,  $MAX=10^5$

- Radix Sort- 0.0 secunde
- Merge Sort- 0.0 secunde
- Shell Sort- 0.0 secunde
- Quick Sort- 0.0 secunde
- Metoda sort()- 0.0 secunde
- Functia sorted()- 0.0 secunde

Counting Sort- 0.02398 secunde

## Timpii de rulare pentru Testul 2

$N=10^5, \text{Max}=100$

- Metoda sort()- 0.08502 secunde
- Functia sorted()- 0.09609 secunde
- Counting Sort- 0.12001 secunde
- Radix Sort- 0.24947 secunde
- Quick Sort- 0.38404 secunde
- Shell Sort- 0.57680 secunde
- Merge Sort- 0.63316 secunde

## Timpul de rulare pentru Testul 3

$N=10^5$ ,  $Max=10^5$

- Functia sorted()- 0.09849 secunde
- Metoda sort()- 0.12813 secunde
- Counting Sort- 0.17600 secunde
- Quick Sort- 0.38811 secunde
- Radix Sort- 0.41719 secunde
- Merge Sort- 0.70705 secunde
- Shell Sort- 1.02528 secunde

# Timpii de rulare pentru Testul 4

$N=10^3$ ,  $MAX=10^7$

- Metoda sort()- 0.01201 secunde
- Quick Sort- 0.01575 secunde
- Functia sorted()- 0.015996 secunde
- Merge Sort-0.01600 secunde
- Radix Sort- 0.01626 secunde
- Shell Sort- 0.0825 secunde
- Counting Sort- 2.29235 secunde

# Timpii de rulare pentru Testul 5

$N=10^7$ ,  $MAX=10^3$

- Metoda sort()- 10.92375 secunde
- Functia sorted()- 11.07764 secunde
- Counting Sort- 12.22280 secunde
- Radix Sort- 40.50882 secunde
- Quick Sort- 62.40975 secunde
- Merge Sort- 90.89926 secunde
- Shell Sort- 156.78852 secunde

# Timpii de rulare pentru Testul 6

$N=10^4$ ,  $MAX=10^4$

- Metoda sort()- 0.01625 secunde
- Functia sorted()-0.01728 secunde
- Counting Sort- 0.02418 secunde
  - Radix Sort- 0.04068 secunde
  - Quick Sort- 0.0407 secunde
- Merge Sort- 0.05629 secunde
  - Shell Sort- 0.06427 secunde



# Timpii de rulare pentru Testul 7

$N=10^4$ ,  $MAX=10^5$

- Functia sorted()- 0.02435 secunde
- Metoda sort()- 0.03118 secunde
  - Quick Sort- 0.04029 secunde
  - Radix Sort- 0.04835 secunde
  - Merge Sort- 0.05626 secunde
  - Shell Sort- 0.06607 secunde
- Counting Sort- 0.06812 secunde

# Timpii de rulare pentru Testul 8

$N=10^5$ ,  $MAX=10^4$

- Metoda sort()- 0.10618 secunde
- Functia sorted()- 0.11262 secunde
- Counting Sort- 0.16022 secunde
- Radix Sort- 0.39983 secunde
- Quick Sort- 0.45661 secunde
- Merge Sort- 0.66665 secunde
- Shell Sort- 0.93573 secunde