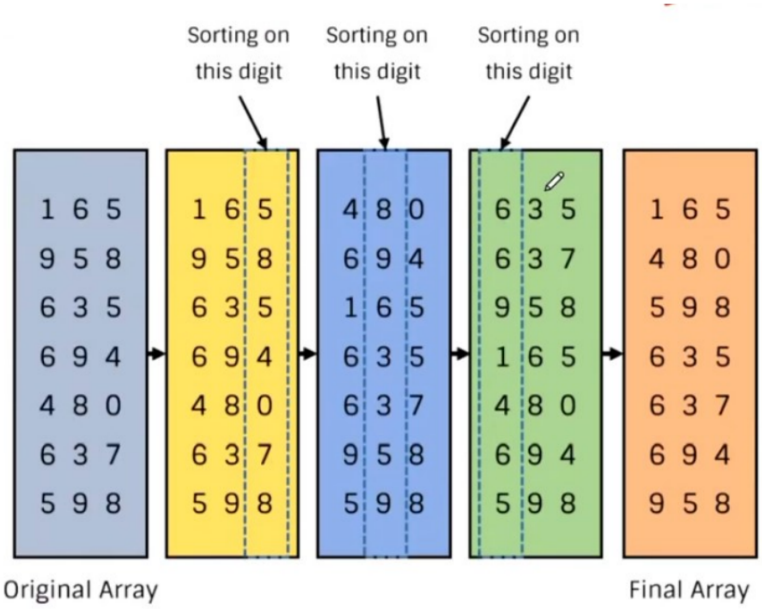
Radix Sort Algorithm



1. Take the least significant digit of each key
2. Sort the list of elements based on that digit, but keep the order of elements with the same digit.
3. Repeat the sort with each more significant bit

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RADIX-SORT(A, d)
1  for i = 1 to d
2      use a stable sort to sort array A on digit i
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Number of comparisons (Cn) = b*d*n

Where

• b or k = Digits in a number (b=10 for decimal digit)

• d = Number of digits in a number (s = 4 for 972, 8345 & 89 numbers)

• n = Number of items (given numbers to be sorted)

• Time depends upon comparisons, so time complexity is O(n)