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A radix sort algorithm that uses iteration to

sort an array from low to high numbers.

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import java.util.Random;

public class RadixIteration

{

public static void main(String[] args)

{

int[] array = new int[10];

int[] temp = new int[array.length]; //creates a temporary array to hold sorted data

Random randomObj = new Random();

//fills each index of array with random numbers.

for (int a = 0; a < array.length; a++)

{

array[a] = randomObj.nextInt(1000);

System.out.print(array[a] + " ");

}

System.out.println();

//sorts items considering the 1's place based on the temporary array and stores it in temporary array

int i = 0;

for (int b = 0; b < 10; b++)

{

for (int a = 0; a < array.length; a++)

{

if (array[a]%10 == b)

{

temp[i] = array[a];

i++;

}

}

}

//sorts items considering the 10's places based on temporary array and stores it in the temporary array

int j = 0;

for (int b = 0; b < 10; b++)

{

for (int a = 0; a < array.length; a++)

{

if (((temp[a]%100)/10) == b)

{

array[j] = temp[a];

j++;

}

}

}

//sorts the items considering the 100's place based on temporary array and stores it in the temporary array

int k = 0;

for (int b = 0; b < 10; b++)

{

for (int a = 0; a < array.length; a++)

{

if ((array[a]/100) == b)

{

temp[k] = array[a];

k++;

}

}

}

//prints out the sorted array.

for (int d = 0; d < temp.length; d++)

{

System.out.print(temp[d] + " ");

}

}

}