

```

public static void RadixSort(int [] arr) {
    int max= Arrays.stream(arr).max().getAsInt();
    int[] sortedArray;
    for (int exp=1; max/exp>0 ;exp*=10) {
        sortedArray=countSort(arr, max, exp);
        System.arraycopy(sortedArray, 0, arr, 0, arr.length);
    }
}

public static int[] countSort(int[] arr, int max, int exp) {
    // int [] indexArray = new int[max+1];
    int [] indexArray = new int[10];
    for(int value : arr) {
        indexArray[value/exp % 10]++;
    }

    for (int i=1; i < indexArray.length; i++) {
        indexArray[i] += indexArray[i-1];
    }

    int[] sortedArray = new int[arr.length];
    for (int i=arr.length-1; i>=0; i--) {
        int current = arr[i];
        sortedArray[indexArray[current/exp % 10]-1]=current;
        indexArray[current/exp % 10]--;
    }
    return sortedArray;
}

```