

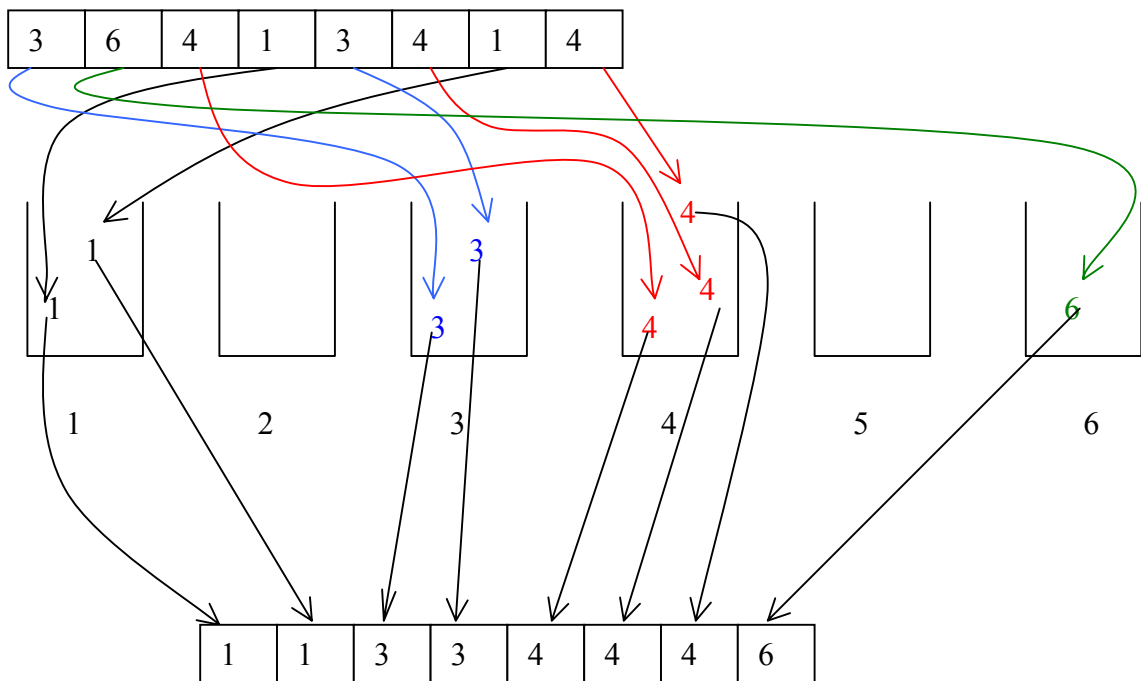
Bucket Sort

Input: Items from the set {1, 2, 3, ..., k}

Output: Sorted list

- Make buckets
- When you see an item every time, you throw it into the right bucket depending on the value of the item.
- You collect things in the bucket one at a time, then connect buckets in the right order.

Example:



```
void BucketSort(Item A[])  
{  
    for(int i=1; i<=n; i++)  
        Insert A[i] into B[A[i]];  
    for(int j=1; j<=k; j++)  
        Output list B[j];  
}
```

It requires $O(n+k)$ time.