**Counting sort**

**for** *i*1 **to** *k*

**do** *C*[*i*]0

**for** *j*1 **to** *n*

**do** *C*[*A*[ *j*]] ++

/\* After this step, *C*[*i*] contains num of elements

whose key =i \*/

**for** *i*2 **to** *k*

**do** *C*[*i*]*C*[*i*] + *C*[*i*–1]

/\* *After this step C* [*i*] = |{key *i*}| \*/

/\**C* indicates where to put the next A[*j*] when copying BA \*/

**for** *j**n* **downto** 1

**do** *x* *A*[ *j* ]

*B*[*C*[*x*]] *x*

*C*[*x*] *–*

***Bucket Sort***