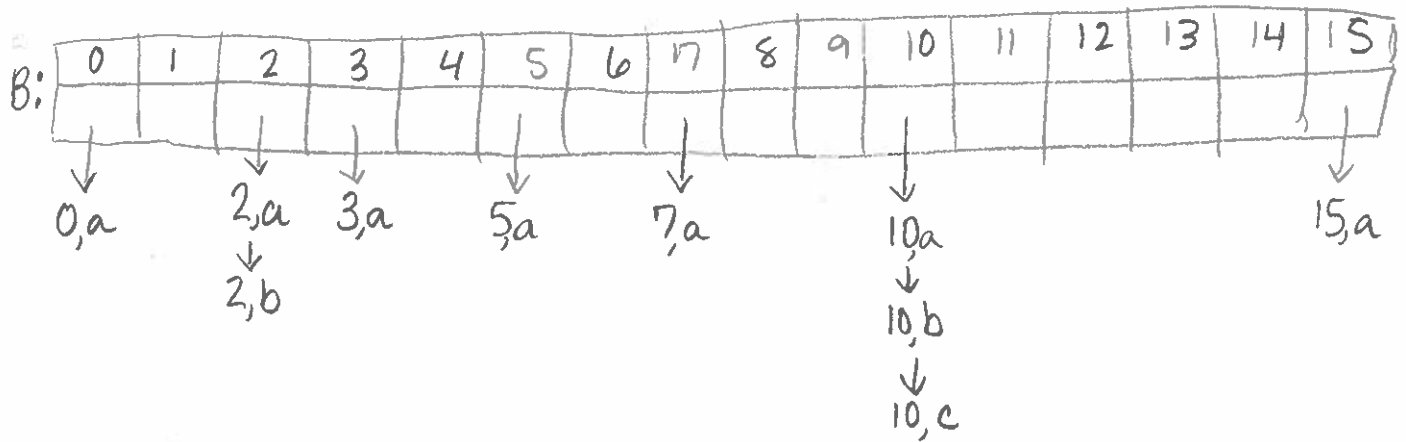


Illustrate the execution of BUCKET-SORT on the following

input  $S$  of key element pairs:  $2, 4, 6, 4, 5, 15$

$(5a), (10,a), (2,a), (3,a), (2,b), (15,a), (7,a), (10,b), (0,a), (10,c)$

step 1: construct  $B$  of size 16 (since largest element in  $S$  is 15)



step 2: For each cell of  $B$ , empty each item into sorted list

$(0,a), (2,a), (2,b), (3,a), (5,a), (7,a), (10,a), (10,b), (10,c), (15,a)$