STABILITY

An algorithm is considered to be stable if equivalent elements retain their relative positions after sorting.

(OR) Two objects with equal keys appear in the same order in the sorted output.

Not relevant when the elements to be sorted are integers or the whole element is the key.

(eg) a list like {3,2,2,1,5} ——>> {1,2,2,3,5}

ADVANTAGE OF STABLE ALGORITHMS WITH AN EXAMPLE

Consider the following data set of students and their class sections.

(Dave, A)

(Alice, B)

(Ken, A)

(Eric, B)

(Carol, A)