Extra Credit. An assortment of Sorting techniques.

I think that the sorting Stability becomes really important when dealing with equal or repeated elements. To give an example we could use Birthdays and names.

Lets say we have the following info:

Person	Name	Birthday
A	Jack	1/1/2005
B	Karen	2/25/2005
C	Linda	7/21/2005
D	George	1/1/2005

If we are sorting by Names then Bdays for an unstable sorting algorithm it could look like this.

Sorted by names: DABC

Then by birthday: ADBC

This is possible to happen because A and D have the same birthdays despite George being before by name sorting. This is a possible error that could occur with an unstable sorting algorithm like Quick sort. A Stable algorithm on the other hand would handle duplicates properly and sorting by different things wouldn't effect it negatively

This is the biggest problem if a Sorting algorithm doesn't have the stability holding good. Since it doesn't guarantee how duplicate elements are treated, it could cause a real big issue when sorting specific data.