The secretary problem: define it and explain why the solution might not be optimal.

What is cost, in term of elem. operations, of the solution seen in class?

Secretary problem is an example of a ‘stopping problem’, the problem is finding an optimal point to stop looking/calibrating and make a choice. The premise of the problem is that you find out the rank of each element in the set of elements that have been observed one by one. You must decide whether to stop looking and accept an element immediately after it’s rank is observed. You must decide to accept or reject element immediately after learning it’s rank, You cannot go back to accept a previous element after you have rejected it.

The approach which leads to the optimum solution n

Compute the exact average operations or range?

No of operations =

Minimum comparisons (best case = n/e +1

Maximum comparisons = n-1

Learn probability density function – to calculate the actual average.

Dynamic programming – work out how many multiplications would be required for each combination of matrix multiplications that could be done. Store the results and multiply the matrices that results in the lowest number of scalar multiplications.

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