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### **Complexity of the Banker's algorithm**

The worst case scenario for the runtime of the algorithm is  $O(n^2)$ , which happens in the case where the process that first fulfills the requirements is at the bottom of the iteration.

However, since  $n$  is usually very small, running the algorithm for every resource request will not be taxing to the process nor the system as a whole. It will only be taxing if a batch of processes have to share resources and yet is running time-critical code (e.g. trading platforms).