Parallelization in Python

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Induces graph. Specifically **directed, acyclic graph**. (why?)

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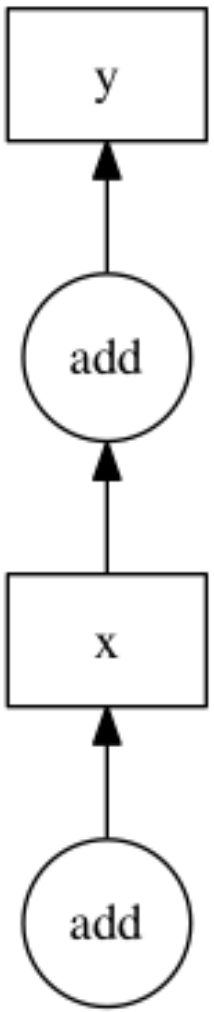

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Dask Answer: Some combination of the above.

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Results:

- Embarrassing.
- Hard.
- Could be made embarrassing.

Lazy evaluation

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Catch: When you specify a custom graph (i.e., a Dask graph), all computations will be run.

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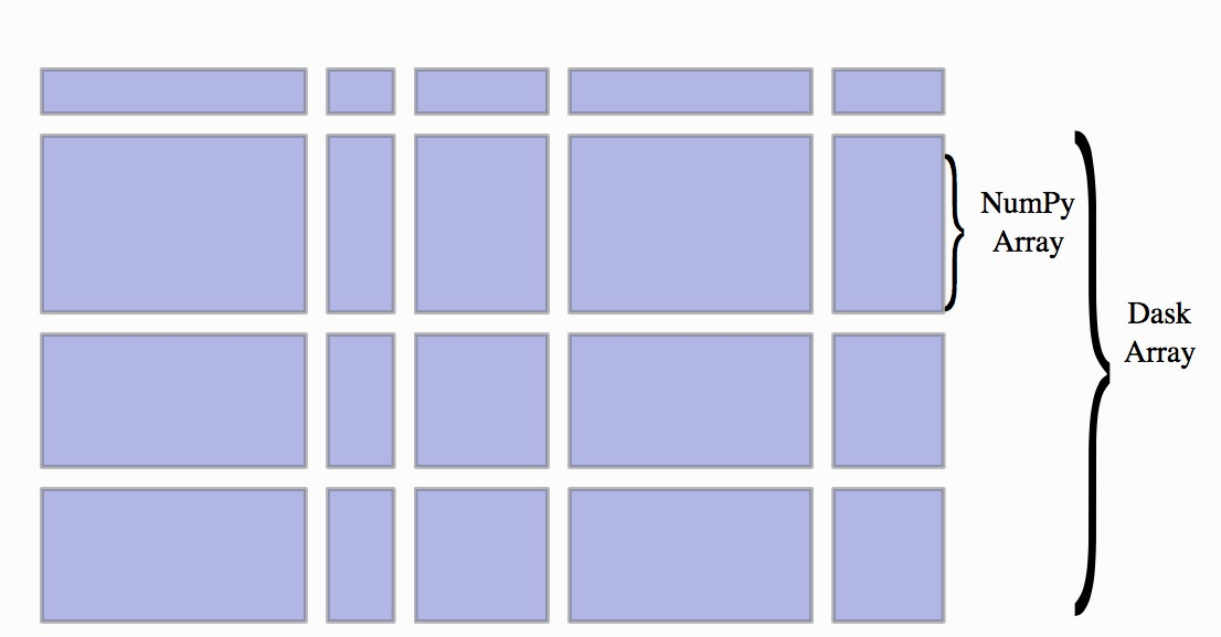

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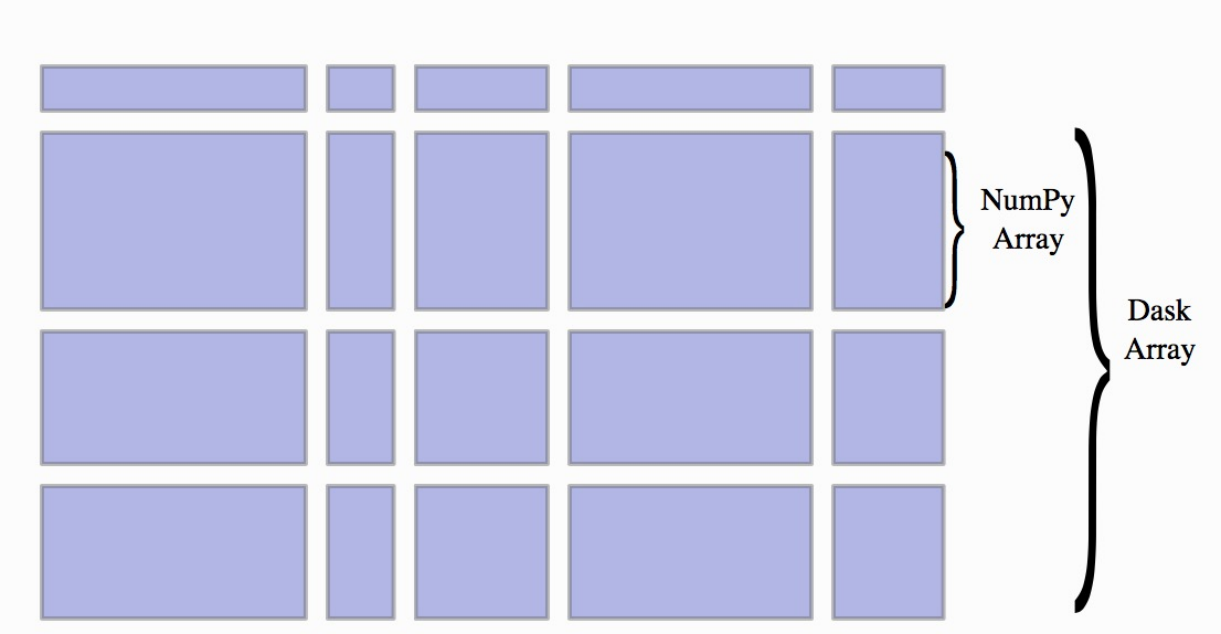

One Application: Your matrix is too big to load in memory.

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- Processes: More heavyweight, seperate memory spaces.
- Global Interpreter Lock: One thread touches the interpreter (and therefore the stack, all objects in memory, etc.) at a time.

Motivation