VS.

Blocking vs. Non-wait-free vs. Wait Free

Blocking

- May context switch for example due to a lock, system call etc.
- Caches likely to be invalidated
- Memory may be swapped

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Non Wait-free

- Execution time is unbounded
- Must contain a loop (which is unbounded)
- Blocking operations are never wait-free (but not vice versa)

Blocking	Non-wait-free	Wait-free
May context switch for example due to a lock, system call etc.	Execution time is unbounded	Execution time is bounded*
Caches likely to be invalidated	Must contain a loop (which is unbounded)	No unbounded loops
Memory may be swapped	Blocking operations are never wait-free (but not vice versa)	

Blocking vs. Non-wait-free vs. Wait Free

Blocking	Non-wait-free	Wait-free
May context switch for example due to a lock, system call etc.	Execution time is unbounded	Execution time is bounded*
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Memory may be swapped	Blocking operations are never wait-free (but not vice versa)	

In Summary

- Don’t block!
  - **System calls**
  - **Waiting to acquire a lock** of any kind