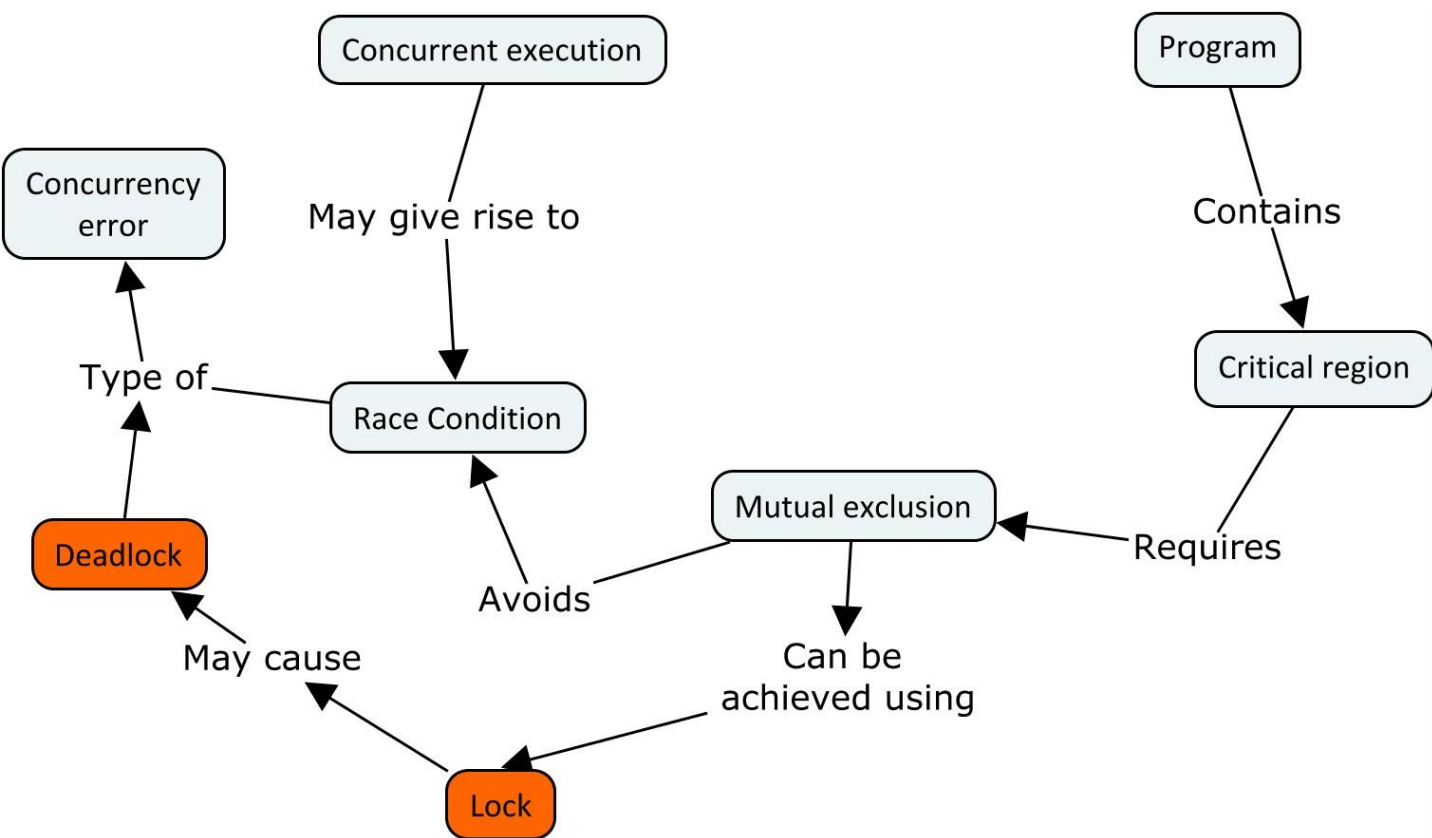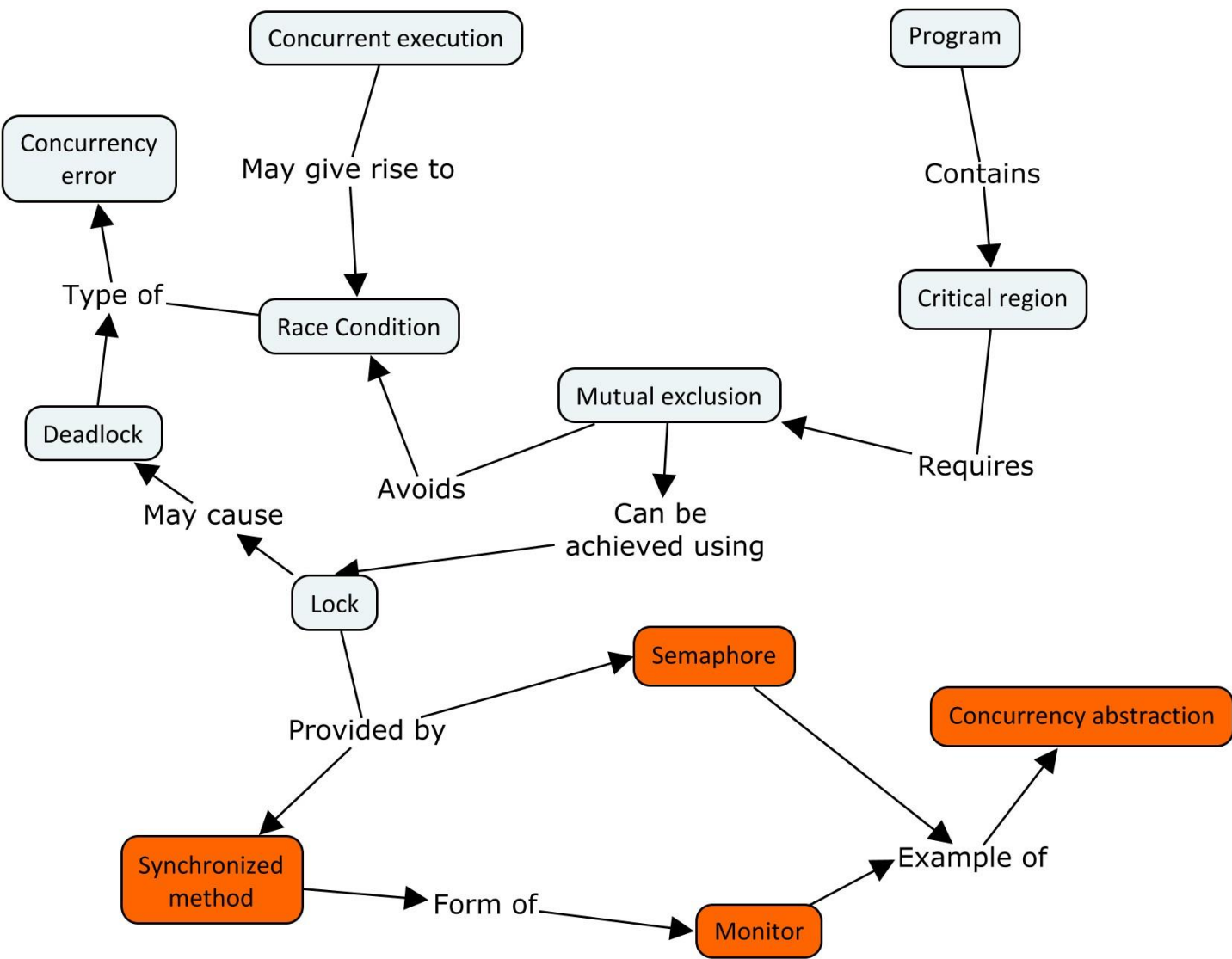- A <u>program</u> may contain <u>critical region</u>s
- A critical region requires <u>mutual exclusion</u>
    - At most one thread of execution at any time to avoid a '<u>race condition</u>' …
    - … which can result from concurrent execution
- A 'race condition' is one form of <u>error in a concurrent program</u>

- <u>Mutual exclusion</u> can be achieved using <u>locks</u>
- But locks can also lead to <u>deadlock</u>
- Deadlock is another type of concurrency error

- Semaphores and synchronized methods provide locks
- These are both examples of concurrency abstractions used in programs