

## CS681 – HomeWork 15

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### Explain a potential race condition with a sequence diagram

In this way of terminating the thread potential race condition can occur if there are no locks included.

Thread.interrupted() is a boolean method and if false it will keep generating prime numbers.

If multiple threads are accessing this method then even if thread is interrupted, Thread.interrupted() will get false value instead of true and will keep on generating prime numbers.

This is the race condition that may occur if locks are not applied here.

Once locks are included into system only one thread can access when interrupt() is called.

Diagram :

