Vulnerabilities

**Race conditions**

# Unit 7 lab Solutions

The students will write their own reflection on these topics. Here is a brief description of each incident:

* The Therac-25 was a radiation therapy machine produced in 1982 and had several programming errors; among those was a race-condition error
* These errors resulted in at least six accidents where patients were given massive overdoses of radiation
* Sometimes these doses were hundreds of times greater than normal; this resulted in death or radiation burns/poison
* A race-condition error was also the cause of the Northeast blackout of 2003 which left 55 million people without power for 2-7 days