# Homework 2

* Q1 **Virtual Box (does NOT work on mac with apple silicon)**
  + A) Picture of passwd file Tail
  + B) Picture of tail/ etc/group
  + C) Picture of file system as seen in example
* Q2 **Unix/Linux Permissions**
  + A) explain why alice can change Marks script
  + B) provide commands alice would use (provide screen shots)
* Q3 **5.5 from book (SQL statement**)
  + A) What is intent of statement?

It looks through a database for an ID that has the matching the forename and surname of John Smith.

* + B) With assumed, What is effect?

The new forename and stuff

* + C) New assumed, Effect this time?

The semicolon indicates end of the command and then it is overloading and adding the extra drop authors command to run on top.

The drop table authors— command would delete a table named authors.

* Q4 **Dynamic Queries**
  + A) given supposed, show SQL query

SELECT accounts FROM users WHERE login = ‘karen’ AND pass = ‘1q2w3e4r5t’ AND pin = ‘1234’

* + B) new supposed, what is new effect?

If the user adds OR 1 = 1 – then that would make it auto login as the SQL would try to login OR set it so that 1=1 which is always true.

* Q5 **Fire Suppression (Pros and Cons of each)**
  + A) Water Sprinkler

Pros: Widely available and used throughout many facilities. Water is also accessible with water lines being ran to almost every building in the modern world. Since most water companies flat charge you or charge per usage, this option would also be pretty in expensive.

Cons: For one thing, water is the natural enemy of most electronics.This could lead to damage of components, data loss or downtime of your systems.

* + B) Dry Chemical (ie bicarbonate)

Pros: Can extinguish fires in a time efficient manor. Unlike water, this option (and those that follow) are less detrimental to electronics.

Cons: Depending on the chemicals their could be different cons. Some may leave residues on your devices, some could be corrosive or reactive to some of the different pieces and components. If the chemical is released as a powder it could also get in and clog up cooling solutions and fans of running pieces as well.

* + C) Halon

Pros: Great fire suppressant while keeping devices safe and unlike the chemicals it doesn’t leave residues or cause corrosion.

Cons: This gas is bad for the environment as well as difficult to produce due to bans in some countries because of the environmental effects. This leads to Halon being a more expensive option and with the costs to maintain and recharge keeps those costs monthly or so.

* + D) Argon

Pros: Like Halon but environmentally friendlier. Still avoids residues and corrosion. Displaces oxygen so fire cannot breathe.

Cons: This is also very expensive for starting and maintenance. Also not widely available so difficult to get and maintain as well.

Fun fact: the school used to use a freon system in their server room/data center.

Pros: Effective at suppressing fires and non-conductive so safe to use with technology.

Cons: In the same way as Halon, freon is bad for the ozone and therefore the environment. Again, like Halon, it is banned in some countries and therefore difficult to get. It is also bad for people and so if it goes off, need to get it cleaned up (bad for skin and lungs).

* Q6 **6.5 from book (Consider following, what type of Malware is this)**
  + This first code segment that crashs a computer any Friday the 13th (fun fact: Friday the 13th only happens once every 200 ish days) would be a time or logic bomb. Time or Logic bombs wait for a specific time or circumstance to occur and then execute themselves.
* Q7 **6.6 from book (Consider following, what type of Malware is this)**
  + This code that allows the leet hacker login for just using that username looks like a backdoor into a login system. This could be added by a malicious person on a system no matter what.
* Q8 **6.7 from the book (Given scenario, answer questions)**