# Notes to instructors

These lessons are available as one large file or broken down into individual lesson. I recommend against using the solutions as graded items, however; solutions to all Holiday Hack challenges are available on the Internet. Questions for the students to answer that require thought should be gradable.

This document uses a question-and-answer format, where the answers are closed until the student opens them. Students can open the answers any time they wish; since solutions are available on the Internet there did not seem to be any purpose in implementing more security. The goal is that the student think and try alternatives before looking at solutions. Changes to the Word document may cause the answers to open; check for this before posting a version for the students. Also, the answers are always open if the document is converted to PDF.

Many of the lessons can be done in Windows, but many require the use of a Linux OS or hashcat. If your lab allows VMware Workstation Player (free for educational use), another hypervisor like Virtual Box, or access to online Virtual Machines (VMs) through a range like Virginia Cyber Range, students should have no trouble doing these lessons. They do require Internet access, but other than that and access to Windows and Linux, nothing else is required.

These lessons do not have to be run straight through, as most can be standalone lessons. There are a few exceptions; players must do the introduction to gain admittance to the North Pole. They must solve Objective 3 to enter Frost Tower and solve the Frostivator to leave the entry level of the tower.

Feel free to use any or all these lessons in your classes or texts. If you do use them, I ask that you let me know how it went. If you make improvements or run into problems, please contact me at [johnyork807@gmail.com](mailto:johnyork807@gmail.com) or @JohnYork\_r2 on Twitter.