**ProLUG 101**

**Unit 7 Worksheet**

# Instructions

Fill out this sheet as you progress through the lab and discussions. Hold onto all of your work to send to me at the end of the course.

# Discussion Questions:

**Unit 7 Discussion Post 1:** Why is software versioning so important to software security? Can you find 3 reasons, from the internet, AI, or your peers?

**Unit 7 Discussion Post 2**: You are new to a Linux team. A ticket has come in from an application team and has already been escalated to your manager. They want software installed on one of their servers but you cannot find any documentation and your security team is out to lunch and not responding. You remember from some early documentation that you read that all the software in the internal repos you currently have are approved for deployment on servers. You want to also verify by checking other servers that this software exists. This is an urgent ask and your manager is hovering.

1. How can you check all the repos on your system to see which are active?
2. How would you check another server to see if the software was installed there?
3. If you find the software, how might you figure out when it was installed? (Time/Date)

**Unit 7 Discussion Post 3**: (After you have completed the lab) - Looking at the concept of group install from DNF or Yum. Why do you think an administrator may never want to use that in a running system? Why might an engineer want to or not want to use that? This is a thought exercise, so it’s not a “right or wrong” answer it’s for you to think about.

1. What is the concept of software bloat, and how do you think it relates?
2. What is the concept of a security baseline, and how do you think it relates?
3. How do you think something like this affects performance baselines?

# Definitions/Terminology

Yum

DNF

Repo

GPG Key

Software dependency

Software version

Semantic Version

# Notes During Lecture/Class:

Links:

Terms:

Useful tools:

# Lab and Assignment

Unit 7 Security Patching and Package Management

Begin working on your project from the Project Guide

Topics:

* + 1. System Stability
    2. System Performance
    3. System Security
    4. System monitoring
    5. Kubernetes
    6. Programming/Automation

You will research, design, deploy, and document a system that improves your administration of Linux systems in some way.

# Digging Deeper

1. What is semantic versioning? <https://semver.org/>

# Reflection Questions

1. What questions do you still have about this week?
2. How does security as a system administrator differ from what you expected?