

# ProLUG 101

## Unit 15 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 15 Discussion Post 1:** Your management is all fired up about implementing some Six Sigma processes around the company. You decide to familiarize yourself and get some basic understanding to pass along to your team: <https://www.sixsigmacouncil.org/wp-content/uploads/2018/08/Six-Sigma-A-Complete-Step-by-Step-Guide.pdf>

1. Page 56 – What about the “5S” methodology might help us as a team of system administrators? (Think of your virtual or software workspaces)
2. Page 94 - What are the four layers of process definition? How would you explain them to your junior engineers?

**Unit 15 Discussion Post 2:** Your team looks at a lot of visual data. You decide to write up an explanation for them to explain what they look at.

1. What is a high water mark? Why might it be good to know in utilization of systems?
2. What is an upper and lower control limit in a system output? While this isn't exactly what we're looking at, why might it be good to explain to your junior engineers?

### Definitions/Terminology

- Incident
- Problem
- FMEA
- Six Sigma
- TQM
- Post Mortem

- Scientific Method
- Iterative
- Discrete data
  - Ordinal
  - Nominal (binary – attribute)
- Continuous data
- Risk Priority Number (RPN)
- 5 Whys
- Fishbone Diagram (Ishikawa)
- Fault Tree Analysis (FTA)
- PDCA
- SIPOC

## Notes During Lecture/Class:

Links:

Terms:

Useful tools:

## Lab and Assignment

Unit 15 – No Lab – Christmas Miracle

Continue 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 (optional)

1. Spend more time in <https://www.sixsigmacouncil.org/wp-content/uploads/2018/08/Six-Sigma-A-Complete-Step-by-Step-Guide.pdf>
  - a. Page 243 – Starts looking at visual data analysis.
2. Get your White belt (Free) Six Sigma Certification.

## Reflection Questions

1. What questions do you still have about this week?
2. How can you apply this now in your current role in IT? If you're not in IT, how can you look to put something like this into your resume or portfolio?