**Task**

You are tasked with the creation of a Cookbook and the completion of networking challenges.

**Each submission must include the following at a minimum**

* A cookbook containing three recipes.
* Each recipe follows the following process:
  + Problem being solved
  + How does solving this problem help?
  + Explanation of procedure to solve the problem
  + Analysis | Evaluation | Compare | Contrast | “Story.”
* Challenge Response.

# Tools of Learning

### Cookbook

A cookbook is a collection of recipes that are often themed. In Information Technology, cookbooks are prolific and are themed around current problems that you might face in some domain.

<https://www.librarything.com/nseries/7655/OReilly-Cookbook-series>

### Recipes (technical)

Technical recipes are similar to recipes you find on a food blog except in reverse. The story about why you might want to make Nanna’s secret apple pie ice cream comes first in a food blog. It helps set the scene for why people care.

In Technical recipes, people don’t need to be convinced that they need help; that’s why they are reading your recipe. They need to understand why your solution is the best approach.

#### An example of a technical recipe:

|  |
| --- |
| Configuring the router via TFTPProblem: You want to load configuration commands via TFTP. Solution: You can use copy tftp: command to configure the router via the Trivial Fire Transfer Protocol (TFTP)   Discussion: Generally, most people configure their routers by using telnet/ssh and the configure terminal command. However, for large configuration changes people tend to resort to cutting and pasting a large set of commands. While this method works, it is inefficient and slow, particularly if you have to configure a large number of routers.  Using TFTP to download a large set of configuration commands, the router doesn’t need to echo each character to your screen, which reduces the overhead and increase the speed of the interaction.  In this example, the router is configured by downloading a file called NEWCONFIG from a server at 192.168.10.1 by using the Trivial File Transfer Protocol (TFTP). The router will copy the entire file by TFTP before entering the commands into the running configuration.  This is useful because sometimes some commands in the middle of a configuration could disrupt your access to the router, but the rest of the commands might fix the problem. If you tried to enter them manually using telnet/ssh and configure terminal, you could simply lock yourself out of the router. A typical example of this problem happens when you replace an active access-list. When you enter the first line the router puts an implicit deny all at the end which can break your session. Using TFTP avoids this problem. |

### Challenge Response

Lastly, you must submit the response to the Networking Challenge issued as a part of your Labs. This challenge-response will require the subnetting calculations and Network Configuration for the following Network

Diagram, schematic

Description automatically generated

NOTE: This network is incomplete and will be updated early this week.