

### Rapid Ascent Assignments

#### Rubric

<Passing 80>	100	80	60	40
Meets Task Requirements	All	Most	Some	Very Few or None
Frequency	Always	Usually	Some of the Time	Rarely or None
Accuracy	No Errors	Few Errors	Some Errors	Frequent Errors
Comprehensibility	Always Comprehensible	Almost Always Comprehensible	Gist and Main Ideas Comprehensible	Isolated Bits are Comprehensible
Content Coverage	Fully Developed	Adequately Developed	Partially Developed	Minimally Developed
Cybersecurity Vocabulary	Broad and Varied	Adequate and Varied	Limited / Lacks Variety	Basic / Highly Repetitive

The above are in % points.

## **ASSIGNMENTS - Virtualization**

- **Virtualization** Assignment #1 – Virtualization Concepts
  - Assignment
    - Explain
      - Distinguish between Type I, Type II hypervisors, and Containers
    - Via Text
      - Explain virtualization in your own words, the different types, its purpose.
  
- **Virtualization** Assignment #2 – Virtualization Concepts
  - Assignment
    - Explain
      - Resource Allocation
      - Isolation
      - Snapshotting
      - Live Migration
      - Cloning
    - Via Text
      - Explain the list of virtualization features provided above in your own words and its purpose.
  
- **Virtualization** Assignment #3 – Virtualization Concepts – Golden Image
  - Assignment
    - Explain
      - What is a Golden Image, and how it's used
    - Via Text
      - Explain what a Golden Image is, and how it's used in your own words.
  
- **Virtualization** Assignment #4 – Virtualization Concepts – ISO File
  - Assignment
    - Explain
      - What is a ISO File and how its used
    - Via Text
      - Explain what an ISO File is, and how it's used in your own words.

- **Virtualization** Assignment #5– Live Class Exercise – Deploy Ubuntu 22.04 Linux Server (NO GUI)

- Assignment
- Tasks
  - Deploy an Ubuntu 22.04 Linux Server in VirtualBox
- Show Screenshots of
  - The Instructions you followed
  - Each step of the Installation process
  - Linux Server native commands and outputs
- Via Text
  - Explain in your own words the Linux Installation Process, each step, what it means and what you accomplished.

- **Virtualization** Assignment #4 – Live Class Exercise – Discovery

- Assignment
- Tasks
  - Demonstrate switching Virtual Network Modes in VirtualBox
  - Change between NAT and Bridged Modes
- Show Screenshots of
  - The Instructions you followed
  - Each Step of the Process
  - The changes that occurred in Linux, especially the IP Addresses
- Via Text
  - Explain in your own words Network Modes, its purpose, and the experience of using VirtualBox to change the virtual location of the Virtual Linux Server in your system vs the local network.