

Enterprise Network Technologies  
CPTR 2245  
Lab 07

- Contact your instructor with your questions about the assignments.
- The student must insure all the answers are free from any malware.
- The student must insure all answers are legal as defined by the class syllabus.
- All parts of your answers must be neat and easy to read.
- Paragraphs are at least four properly constructed English sentences.
- Embedding documents within documents does not work with the D2L Bright Space assignments.
- All videos must be viewable in the VLC player.

**Lab 07: Multi-Cloud-Systems & Traffic Performance Testing**

- 7.1 Each part is worth eight points for a maximum of twenty-five points. Upload each section answer to D2L Bright Space Assignment section 7.1 before the due date found in the 2245a.pdf document. The text must be readable by the instructor. Submit a Portable Document Format (PDF) or word processing file containing your answers
- 7.1.1 Provide evidence of successfully completing the following Qwiklabs Quest, Deploy to Kubernetes in Google Cloud (7 hours – 18 credits)
    - 7.1.1.1 Introduction to Docker
    - 7.1.1.2 Kubernetes Engine: Qwik Start
    - 7.1.1.3 Orchestrating the Cloud with Kubernetes
- 7.2 Each part is worth six points for a maximum of twenty-five points. Upload each section answer to D2L Bright Space Assignment section 7.2 before the due date found in the 2245a.pdf document. The text must be readable by the instructor. Submit a Portable Document Format (PDF) or word processing file containing your answers.
- 7.2.1 Provide evidence of successfully completing the following Qwiklabs Quest, Deploy to Kubernetes in Google Cloud (7 hours – 18 credits)
    - 7.2.1.1 Managing Deployments Using Kubernetes Engine
    - 7.2.1.2 Continuous Delivery with Jenkins in Kubernetes Engine
    - 7.2.1.3 Deploy to Kubernetes in Google Cloud: Challenge Lab
  - 7.2.2 Provide the URL showing your earned the badge. If you were not able to finish the quest, explain the troubleshooting you did to resolve the problem(s).
- 7.3 Each part is worth five points for a maximum of twenty-five points. Upload each section answer to D2L Bright Space Assignment section 7.3 before the due date found in the 2245a.pdf document. The text must be readable by the instructor. Submit a Portable Document Format (PDF) or word processing file containing your answers.
- 7.3.1 Provide evidence of successfully completing the following Qwiklabs Quest, Cloud Architecture (6 hours – 14 credits)
    - 7.3.1.1 Orchestrating the Cloud with Kubernetes
    - 7.3.1.2 Continuous Delivery Pipelines with Spinnaker and Kubernetes
    - 7.3.1.3 Multiple VPC Networks
    - 7.3.1.4 Troubleshooting Workloads on GKE for Site Reliability Engineers
  - 7.3.2 Provide the URL showing your earned the badge. If you were not able to finish the quest, explain the troubleshooting you did to resolve the problem(s).
- 7.4 Each part is worth four points for a maximum of twenty-five points. Upload each section answer to D2L Bright Space Assignment section 7.4 before the due date found in the 2245a.pdf document. The text must be readable by the instructor. Submit a Portable Document Format (PDF) or word processing file containing your answers.
- 7.4.1 Provide the iperf3 results between two VM separated by a router.
  - 7.4.2 Provide the iperf3 results between two Docker separated by a router.
  - 7.4.3 Provide the iperf3 results between two cloud containers in the same location.
  - 7.4.4 Provide the iperf3 results between two cloud containers in different locations. Please identify the cloud locations.
  - 7.4.5 Format the data into an easy to understand format.
  - 7.4.6 In a paragraph or more, explain the performance differences.