

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.
- Plagiarism will not be tolerated.
- Unless noted, all lab sections must be done as unprivileged login.

**Lab 07: Multi-Cloud-Systems & Build Your Own Network Elements**

- 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 Qwiklab, Set Up and Configure a Cloud Environment in Google Cloud (6 hours, 18 credits) [ 24 points ]
    - 7.1.1.1 Cloud IAM: Qwik Start
    - 7.1.1.2 Introduction to SQL for BigQuery and Cloud SQL
    - 7.1.1.3 Multiple VPC Networks
  - 7.1.2 Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used. [ 1 point ]
- 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 Qwiklab, Set Up and Configure a Cloud Environment in Google Cloud (6 hours, 18 credits) [ 12 points ]
    - 7.2.1.1 Cloud Monitoring: Qwik Start
    - 7.2.1.2 Managing Deployments Using Kubernetes Engine
    - 7.2.1.3 Set Up and Configure a Cloud Environment in Google Cloud: Challenge Lab
  - 7.2.2 Provide the URL showing your earned the badge. [ 12 points ]
    - 7.2.2.1 If you were not able to finish the quest, explain the troubleshooting you did to resolve the problem(s).
  - 7.2.3 Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used. [ 1 point ]
- 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 Qwiklab, Deploy and Manage Cloud Environments with Google Cloud (7 hours 45 minutes, 11 credits) [ 24 points ]
    - 7.3.1.1 Configuring IAM Permissions with gcloud
    - 7.3.1.2 Hosting a Web App on Google Cloud Using Compute Engine
    - 7.3.1.3 Orchestrating the Cloud with Kubernetes
    - 7.3.1.4 Networking 101
  - 7.3.2 Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used. [ 1 point ]
- 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 evidence of successfully completing the following Qwiklab, Deploy and Manage Cloud Environments with Google Cloud (7 hours 45 minutes, 11 credits) [ 12 points ]
    - 7.4.1.1 Using BigQuery and Cloud Logging to Analyze BigQuery Usage
    - 7.4.1.2 Migrate to Cloud SQL for PostgreSQL using Database Migration Service

- 7.4.1.3 Deploy and Manage Cloud Environments with Google Cloud: Challenge Lab
- 7.4.2 Provide the URL showing your earned the badge. [ 12 points ]
  - 7.4.2.1 If you were not able to finish the quest, explain the troubleshooting you did to resolve the problem(s).
- 7.4.3 Identify if an AI type program was used to complete this lab section. If an AI program is used, identify the AI system used. [ 1 point ]