CSCI 3287 Design and Analysis of Data Systems

Homework #7 -- Cassandra Lab

April 16, 2020

Overview

This Project is worth 100 points (out of 1000) toward your final grade. It is due on Sunday, April 26 at 11:59 p.m. Your assignment submission should be a document saved and submitted as a PDF file via the link found in the assignment section of "Week 14" in Moodle which is the same place where you found this file.

This assignment will give you hands-on practice in working with the Apache Cassandra "NoSQL" database software.

Objectives

- Students will deploy and run the Apache Cassandra NoSQL database engine
- Students will gain exposure to CQL Cassandra Query Language
- Students will experience deployment of Apache Cassandra in GCP (the Google Cloud Platform)
- Students will launch and use the Cassandra CQL Shell in GCP

Sections

This assignment has been broken into FOUR sections so that instructions for each part can be posted when ready. This allows students to begin work on Parts One and Two before Part Three is posted.

Part One	Students sign up with GCP (Google Cloud Platform) and obtain free credits
Part Two	Students use free QuikLabs credits to complete QuickLabs course "GSP704 - Deploying an Open Source Cassandra™ Database using the GCP Marketplace"
Part Three	Students use GCP credits to spin up a VM, install Cassandra, create a Keyspace, Create a Table, load it with data, and run CQL queries to access that data
Part Four	Students assemble results in a final document and submit via Moodle link

Part One Instructions:

When signing up for your free GCP & Quicklabs credits, you must use your email address that is composed of your identikey ID (for example, mine is "alpa4161") followed by "@colorado.edu".

This is a valid Google account through which the GCP folks will verify that you are indeed a CU student and are therefore authorized to receive free GCP/QuikLabs credits.

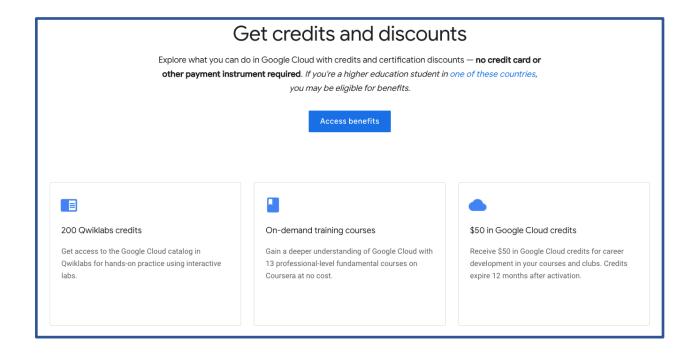
Step 1 - Navigate to the following page and enter in your student credentials

https://edu.google.com/programs/students/benefits/?modal_active=none

Click on the "Access Benefits" button and follow the instructions.

User = identikey@colorado.edu

Pass = Identikey password



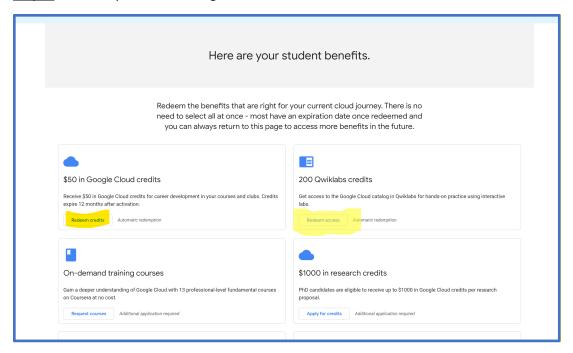
<u>Step 2</u> – Verify your student status

EDU VERIFICATION FORM

Verify your education credentials

you are signed in with the account you want yo profile picture in the top right corner of your so	our edu benefi			
* Required Fields.				
First name *	Last name *			
Sam	Stone			
Legal name registered with your institution		Legal name registered with your institution		
Role *		Email address		
Student	YourldentiKey@colorado.edu			
Country * United States \$\\$\displays{2}\$		Academic institution *		
United States	University of Colorado Boulder (Boulder, CO)			
Date of birth * August \$\frac{1}{27}\$ How did you hear about us? *		\$	1954	\$
A faculty or professor				\$
Sign up for Google Cloud emails with news, punsubscribe at any time. * Yes No	roduct updat	tes, event information	ı, special offers, and r	nore. You can
Information on this form, as well as your Google Ac Information provided will be processed by SheerID is Google privacy policy and any redemption of credits I agree	in accordance v	with their <u>privacy policy</u> .	Your information is also	governed by the
Submit				

Step 3 - Redeem your \$50 in Google Cloud Credits and 200 Quiklabs Credits



Now google will ask you for more information so that they can verify your student status for your free credits.

We need your ID & class schedule

Documents will be reviewed in a few minutes by staff at SheerID, a trusted partner. How does verifying work?

Upload your school-issued document that shows:

- · Your full name
- Your school
- Date proving enrollment for the current term (or within the last 3 months)

Acceptable examples include:

- · School ID card with expiration date
- · Class schedule
- · Tuition receipt

Drag & drop your files here or browse

File must be .jpg .png .pdf .gif or .bmp. You can upload multiple files together and extraneous information can be redacted.

Your information will be transferred to the United States and will be treated according to SheerID's privacy policy.

Verification services powered by SheerID SheerID FAQs

Once you hear back from their verification process, they will provide you with a key code that you must enter in order to activate your credits.