

CKA/CKAD : Complete Certification Guide

Kubernetes - Authentication,
Authorization, Admission Control



CKA/CKAD Certification



Authentication

Authorization

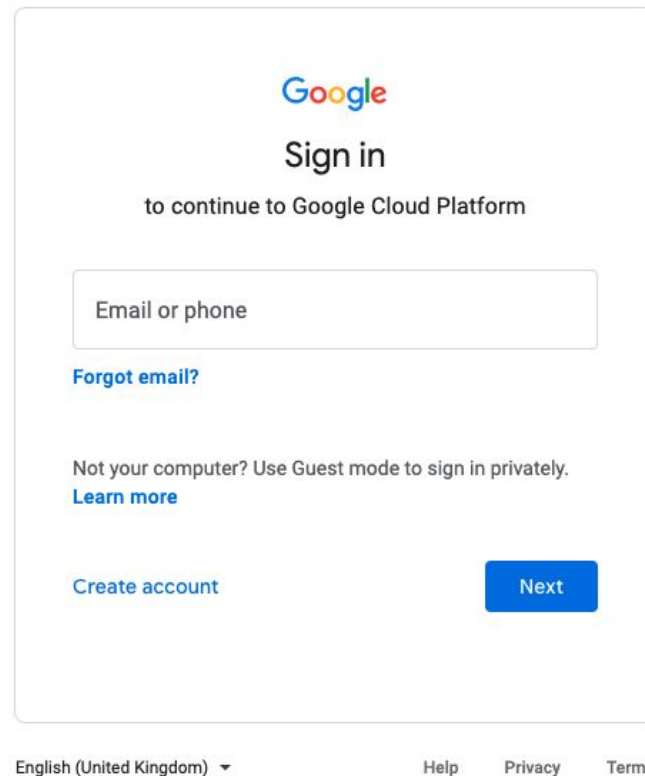
Admission Control

**They all mean the Same?
Right**



CKA/CKAD Certification

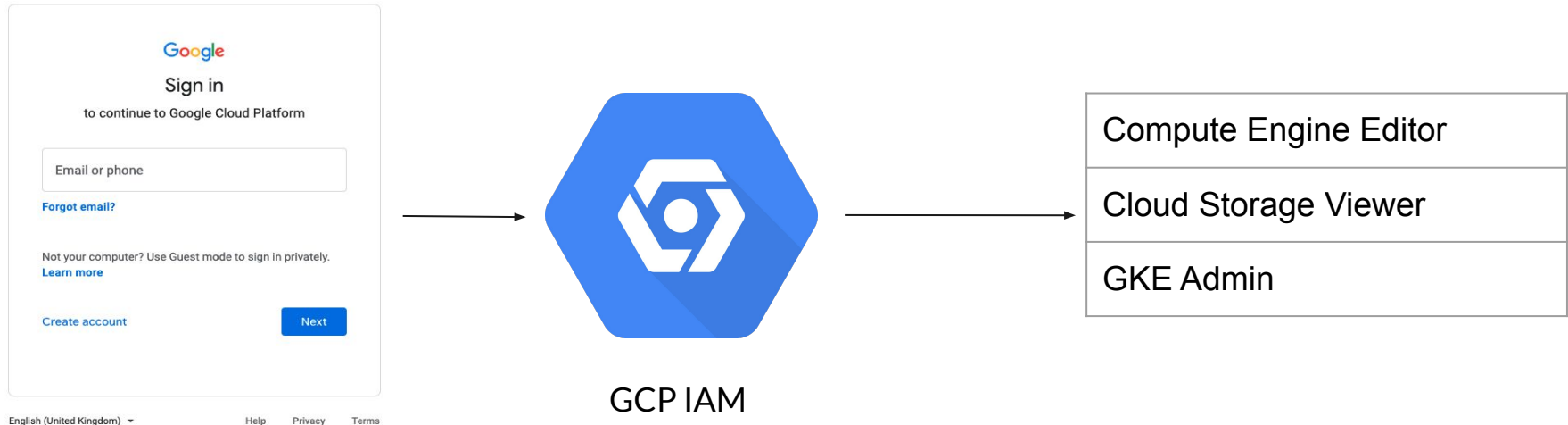
- **Authentication:**
- Identify and verify, who you are.
- x509 Certificates
- Bearer Tokens
- Username/Password
- LDAP/Oauth



The screenshot shows the Google Cloud Platform sign-in interface. At the top is the Google logo, followed by the text "Sign in" and "to continue to Google Cloud Platform". Below this is a text input field labeled "Email or phone". Under the input field is a link "Forgot email?". Further down is the text "Not your computer? Use Guest mode to sign in privately." with a link "Learn more". At the bottom left is a link "Create account" and at the bottom right is a blue button labeled "Next". The footer contains a language selector "English (United Kingdom)", and links for "Help", "Privacy", and "Terms".

CKA/CKAD Certification

- **Authorization**
- Authentication process happens before Authorization.
- Authorization focus on level of privilege and permissions.



CKA/CKAD Certification

Identity	Authorization	
	Service	Permission
Mark	Cloud Storage	Editor
June	Compute Engine	Viewer
Alice	GKE Cloud Storage	Editor Admin
Peter	IAM	Create/Delete Users

- In Kubernetes Authorization Managed by the **RBAC** (Role-based access control).

CKA/CKAD Certification

- **Admission Control :**
- Admission controllers are a powerful Kubernetes-native feature that helps to define and customize what is allowed to run on K8s cluster.
- Admission controller **intercepts** and **processes** requests to the Kubernetes API prior to persistence of the object, but after the request is authenticated and authorized.

CKA/CKAD Certification

- **Power of Kubernetes admission controllers**
- Is the pod requesting too many resources?
- They can block pods from running if the cluster is out of resources or if the images are not secure.
- What is the priority of this deployment compared to the others?
- Which privileges are currently granted to the service account linked to these pods/deployments? Do they adhere to the principle of least privilege?

Thank You...

Don't be the Same! Be Better!!!
