

# Por qué aprender Kubernetes?

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# ESTRUCTURA

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- Qué es Kubernetes?
- Por qué aprender Kubernetes?
- Cómo aprender Kubernetes?
- Certificarse o no ☁️?
- Los mejores recursos
- Extras





# Qué es Kubernetes?

## Parte 01



— 03

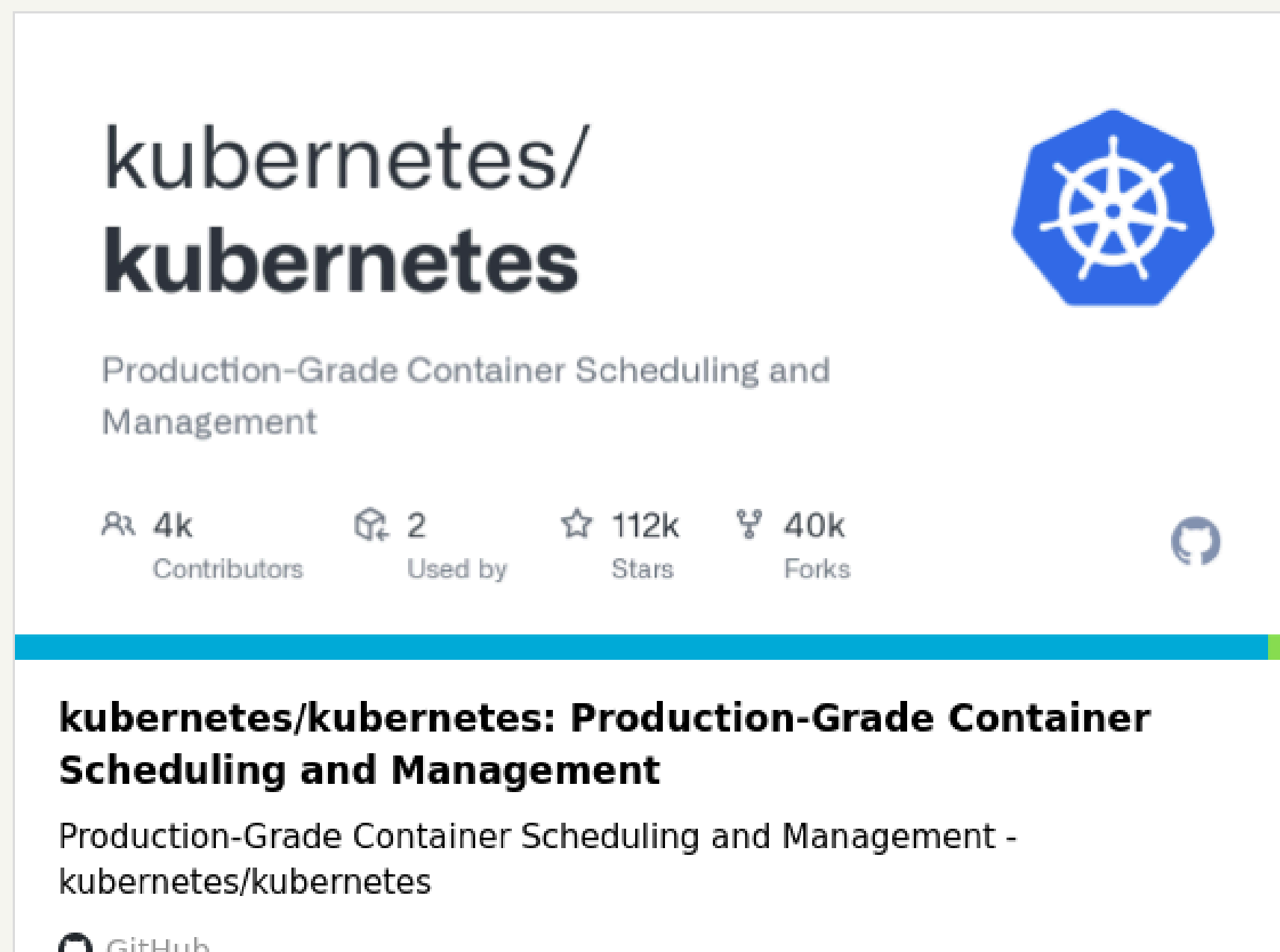


# Kubernetes [1]

**Proyecto que surgió de Google** como una **plataforma de orquestación de contenedores** de código abierto.

Construido a partir de las lecciones aprendidas en las experiencias de desarrollo y ejecución de Borg [2] y Omega de Google.

Diseñado desde cero como una colección de componentes poco acoplados centrados en la implementación, el mantenimiento y la ampliación de cargas de trabajo.



[2] <https://static.googleusercontent.com/media/research.google.com/en/pubs/archive/43438.pdf>

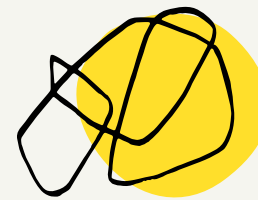


## 2. Por qué aprender Kubernetes?



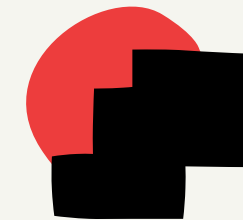
### Dinero

Tienen el vicio de comer tres veces al día



### Desafío

Si te gusta Elder Ring te encantará Kubernetes



### Diversión

Utilizar una herramienta tan compleja suele ofrecerte mucha variedad de trabajos



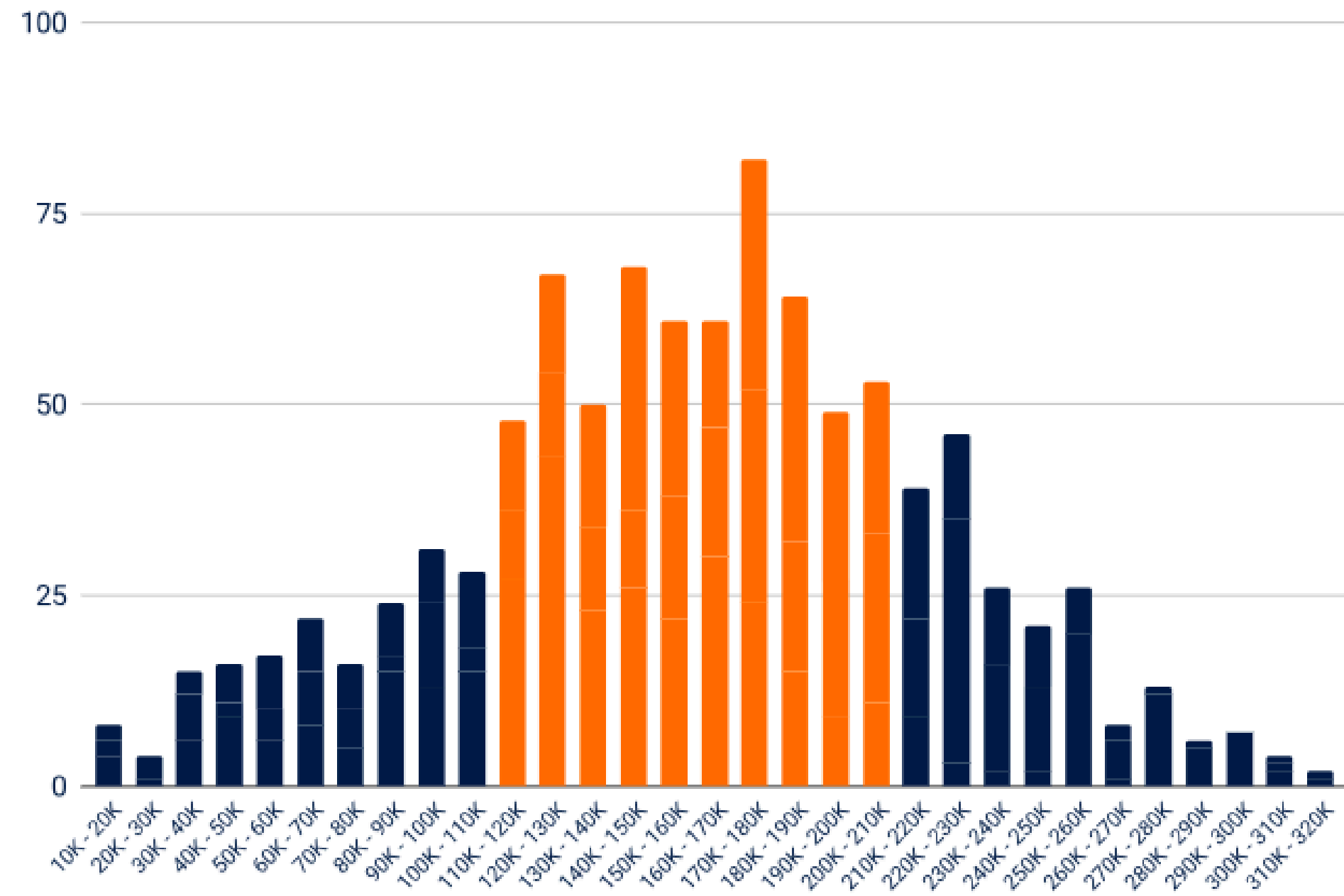
# Dinero

Aprende algo  
dinero – MC  
Dinero

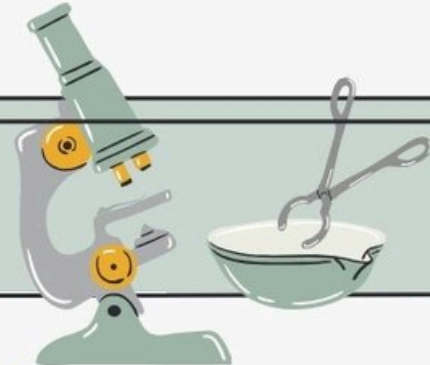


On average, it pays a minimum of **\$135,692**  
and a maximum of **\$188,823**.



Average Kubernetes job salaries (Worldwide)






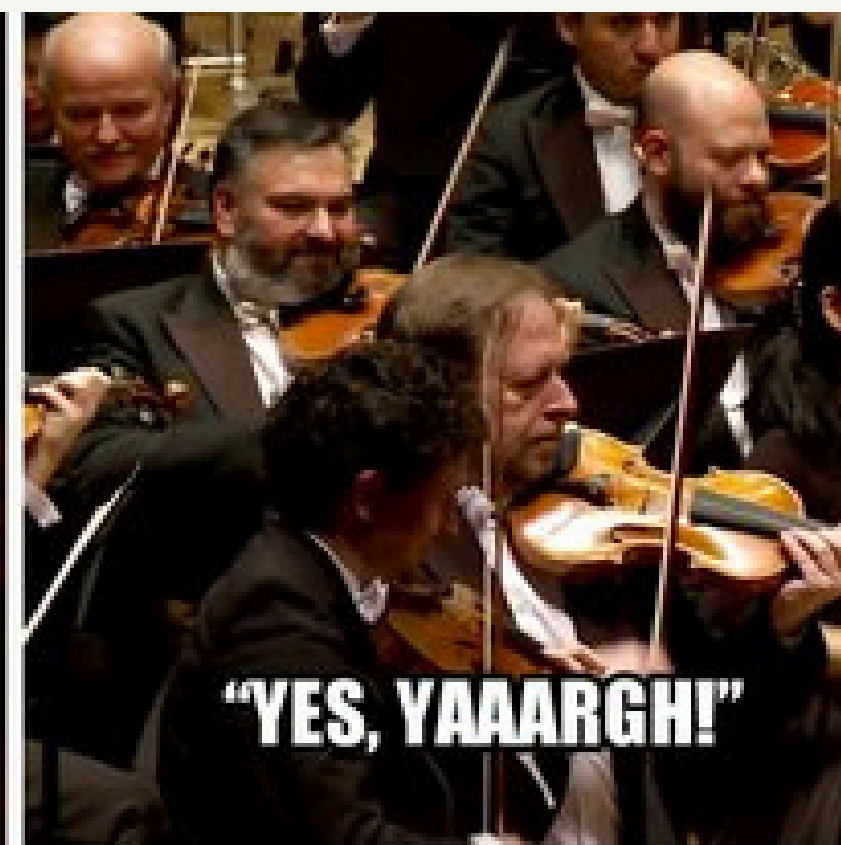


KUBETOOLS PERIODIC TABLE



|  |  |   |  |   |   |   |   |   |  |  |   |   |  |  |   |  |  |   |  |  |
|--|--|---|--|---|---|---|---|---|--|--|---|---|--|--|---|--|--|---|--|--|
| 1<br><b>H</b><br>Helm<br>Deployment              |  |   |  |   |   |   |   |   |  |  |   |   |  |  |   |  | 2<br><b>He</b><br>HelmCabin<br>CI/CD           |   |  |  |
| 3<br><b>Li</b><br>Linkerd<br>Service Mesh        | 4<br><b>Be</b><br>Bazel<br>Testing Tool          |   |  |   |   |   |   |   |  |  |   | 5<br><b>B</b><br>Bitnami<br>Deployment          | 6<br><b>C</b><br>Cert-Manager<br>Security      | 7<br><b>N</b><br>Netshoot<br>Networking          | 8<br><b>O</b><br>Okteto<br>Development        | 9<br><b>F</b><br>Flagger<br>CI/CD                  | 10<br><b>Ne</b><br>Netassert<br>Networking     |   |  |  |
| 11<br><b>Na</b><br>Naml<br>Deployment            | 12<br><b>Mg</b><br>Miniikube<br>Cluster Creation |   |  |   |   |   |   |   |  |  |   | 13<br><b>Al</b><br>Apollo<br>CI/CD              | 14<br><b>Si</b><br>Starboard<br>Security       | 15<br><b>P</b><br>Prometheus<br>Nonmetal         | 16<br><b>S</b><br>Skaffold<br>Deployment      | 17<br><b>Cl</b><br>Civo<br>Cluster Management      | 18<br><b>Ar</b><br>Audit2rbac<br>Security      |   |  |  |
| 19<br><b>K</b><br>KubeVirt<br>Cluster Management | 20<br><b>Ca</b><br>Calico<br>Networking          | 21<br><b>Sc</b><br>KubiScan<br>Cluster Management                                   | 22<br><b>Ti</b><br>Thanos<br>Alert and Monitoring  | 23<br><b>V</b><br>Vcluster<br>Cluster Management      | 24<br><b>Cr</b><br>ConfigMap<br>K8s Objects     | 25<br><b>Mn</b><br>Monokle<br>Development             | 26<br><b>Fe</b><br>Fluentd<br>Logging           | 27<br><b>Co</b><br>ClusterMan<br>Cluster Management | 28<br><b>Ni</b><br>Node Problem Detector<br>Cluster Management | 29<br><b>Cu</b><br>ChartSec<br>Security                | 30<br><b>Zn</b><br>GVisor<br>Dev Tool             | 31<br><b>Ga</b><br>Garden<br>Development        | 32<br><b>Ge</b><br>Gangway<br>Security         | 33<br><b>As</b><br>Akri<br>Edge                  | 34<br><b>Se</b><br>Sealed Secrets<br>Security | 35<br><b>Br</b><br>Bamboo<br>CI/CD                 | 36<br><b>Kr</b><br>KubeForm<br>CI/CD           |   |  |  |
| 37<br><b>Rb</b><br>Robusta<br>Observability      | 38<br><b>Sr</b><br>Skaffold<br>CI/CD             | 39<br><b>Y</b><br>YAML<br>K8s Objects   | 40<br><b>Zr</b><br>zookeeper<br>Cluster Management | 41<br><b>Nb</b><br>Nuclio<br>FaaS                     | 42<br><b>Mo</b><br>Mokbox<br>Cluster Management | 43<br><b>Tc</b><br>Telepresence<br>Cluster Management | 44<br><b>Ru</b><br>RBAC Lookup<br>Security      | 45<br><b>Rh</b><br>Reef<br>CI/CD                    | 46<br><b>Pd</b><br>PipeCD<br>CI/CD                             | 47<br><b>Ag</b><br>ArgoCD<br>CI/CD                     | 48<br><b>Cd</b><br>Clair<br>Security              | 49<br><b>In</b><br>Ingress<br>Networking        | 50<br><b>Sn</b><br>Spinnaker<br>CI/CD          | 51<br><b>Sb</b><br>Submarine<br>Network Policies | 52<br><b>Te</b><br>TerraScan<br>Security      | 53<br><b>I</b><br>Istio<br>Service Mesh            | 54<br><b>Xe</b><br>Xenon<br>Cluster Management |   |  |  |
| 55<br><b>Cs</b><br>Chaoskube<br>Observability    | 56<br><b>Ba</b><br>Botkube<br>Observability      |   |  | 72<br><b>Hf</b><br>Hwameistor<br>Storage Provider     | 73<br><b>Ta</b><br>Tekton<br>CI/CD              | 74<br><b>W</b><br>Werf<br>CI/CD                       | 75<br><b>Re</b><br>Rook<br>Storage Provider     | 76<br><b>Os</b><br>Otterize<br>Security             | 77<br><b>Ir</b><br>Inspektor Gadget<br>Troubleshooting         | 78<br><b>Pt</b><br>Paralus<br>Security                 | 79<br><b>Au</b><br>Aptakube<br>Development        | 80<br><b>Hg</b><br>Hubble<br>Security           | 81<br><b>Tl</b><br>Tilt<br>Developer Kit       | 82<br><b>Pb</b><br>Pulumi<br>Cluster Management  | 83<br><b>Bi</b><br>Buildpacks<br>Deployment   | 84<br><b>Po</b><br>Portainer<br>Cluster Management | 85<br><b>At</b><br>Autopilot<br>Service Mesh   | 86<br><b>Rn</b><br>RKE<br>Cluster Management    |  |  |
| 87<br><b>Fr</b><br>Flex<br>CI/CD                 | 88<br><b>Ra</b><br>Rancher<br>Cluster Management |  |  | 104<br><b>Rf</b><br>Routernetes<br>Cluster Management | 105<br><b>Db</b><br>Datree<br>Security          | 106<br><b>Sg</b><br>Scope<br>Alert & Monitoring       | 107<br><b>Bh</b><br>BUCK<br>Controller          | 108<br><b>Hs</b><br>HybridK8s<br>CI/CD              | 109<br><b>Mt</b><br>MetalLB<br>Transition Metal                | 110<br><b>Ds</b><br>Drone<br>CI/CD                     | 111<br><b>Rg</b><br>Rudr<br>Cluster Tool          | 112<br><b>Cn</b><br>Chaos Toolkit<br>Extensions | 113<br><b>Nh</b><br>Nerdtl<br>CLI Tool         | 114<br><b>Fl</b><br>Flagger<br>CI/CD             | 115<br><b>Mc</b><br>MicroK8s<br>Compute Edge  | 116<br><b>Lv</b><br>Lusca<br>Security              | 117<br><b>Ts</b><br>Traeffik<br>Networking     | 118<br><b>Og</b><br>OpenEBS<br>Storage Provider |  |  |
|  |  |   |  | 57<br><b>La</b><br>Layer5<br>Servie Mesh              | 58<br><b>Ce</b><br>Cloudtty<br>CoreCLI          | 59<br><b>Pr</b><br>Pachyderm<br>Orchestration         | 60<br><b>Ne</b><br>network-mapper<br>Networking | 61<br><b>Pm</b><br>Prometheus<br>Observability      | 62<br><b>Sm</b><br>Spiderpool<br>Network Policies              | 63<br><b>Eu</b><br>Egress-Operator<br>Network Policies | 64<br><b>Gd</b><br>Gatekeeper<br>Network Policies | 65<br><b>Tb</b><br>TiKV<br>Storage Provider     | 66<br><b>Dy</b><br>Devtron<br>CI/CD            | 67<br><b>Ho</b><br>Headlamp<br>Observability     | 68<br><b>Er</b><br>Erda<br>Deployment         | 69<br><b>Tm</b><br>Tracetest<br>Observability      | 70<br><b>Yb</b><br>Yupd<br>Cluster Management  | 71<br><b>Lu</b><br>Lemur<br>Observability       |  |  |
|  |  |   |  | 89<br><b>Ac</b><br>active-minitor<br>Monitoring       | 90<br><b>Th</b><br>Theia<br>Observability       | 91<br><b>Pa</b><br>Prow<br>Deployment                 | 92<br><b>U</b><br>Uffizi<br>Infrastructure      | 93<br><b>Np</b><br>Npviz<br>Network Policies        | 94<br><b>Pu</b><br>Pumba<br>Chaos Engineering                  | 95<br><b>Am</b><br>aiac<br>AI                          | 96<br><b>Cm</b><br>Cilium<br>Network Policies     | 97<br><b>Bk</b><br>Bke<br>Cluster Management    | 98<br><b>Cf</b><br>Colima<br>Container Runtime | 99<br><b>Es</b><br>Escalator<br>Autoscaler       | 100<br><b>Fm</b><br>Fission<br>FaaS           | 101<br><b>Md</b><br>Mico<br>AI                     | 102<br><b>No</b><br>Nocalhost<br>Development   | 103<br><b>Lr</b><br>LoxiLB<br>Network Policies  |  |  |

# Diversión





# Cómo aprender Kubernetes?

Parte  
02





# Recursos para aprender Kubernetes

<https://www.okteto.com/blog/kubernetes-basics/>

<https://www.pluralsight.com/browse/kubernetes-training>

<https://roadmap.sh/kubernetes>

<https://kodekloud.com/learning-path/kubernetes/>

<https://medium.com/wisemonks/how-to-learn-kubernetes-complete-roadmap-resources-with-images-2f659246327c>

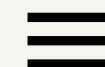
<https://devopscube.com/learn-kubernetes-complete-roadmap/>





# Deberia certificarme?

## Part 03



YES!



## Certified Kubernetes Administrator (CKA)

Recognized Globally + Vendor-Neutral +  
Relevant Across Industries

ENROLL TODAY



### **Certified Kubernetes Administrator (CKA) | Linux Foundation Education**

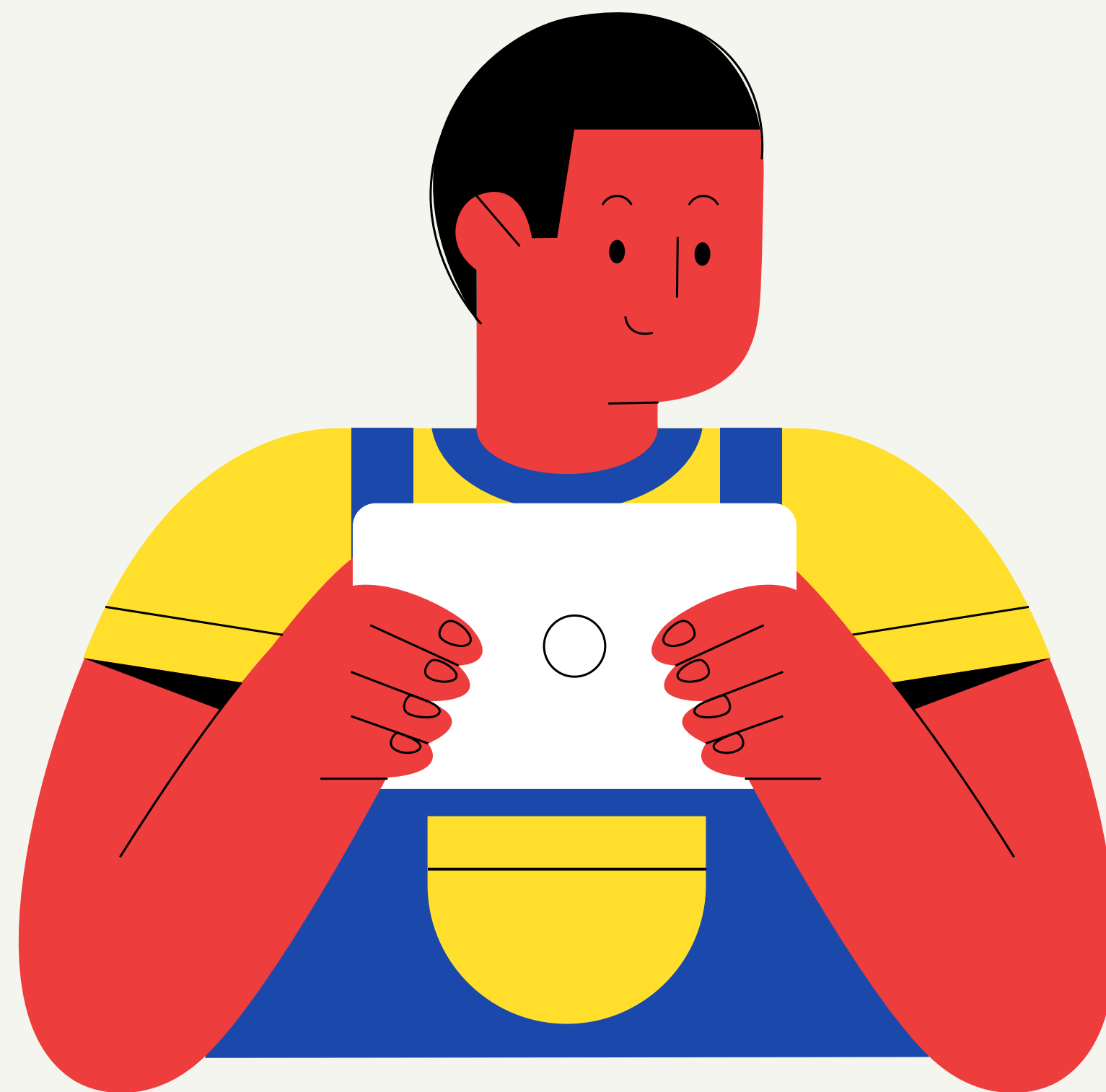
Training in skills, knowledge, and competency to perform the responsibilities of Kubernetes administrators and become a CKA.





# Extra

## Part 04





## **abiosoft/colima: Container runtimes on macOS (and Linux) with minimal setup**

Container runtimes on macOS (and Linux) with minimal setup -  
abiosoft/colima

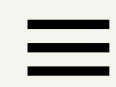
 GitHub

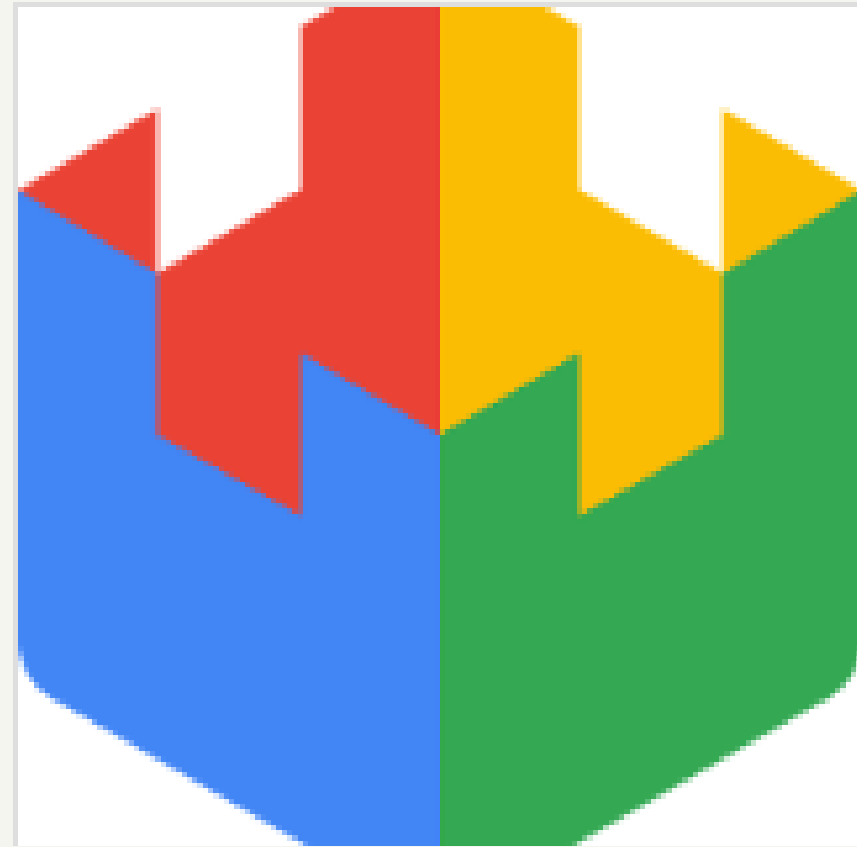




## The Illustrated Children's Guide to Kubernetes

Brought to you by... Written by: Matt Butcher and Karen Chu Illustrated by: Bailey Beougher Illustration of Goldie is based on the Go Gopher designed by Renee French Phippy, Goldie, Captain Kube...





# Google - Site Reliability Engineering

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