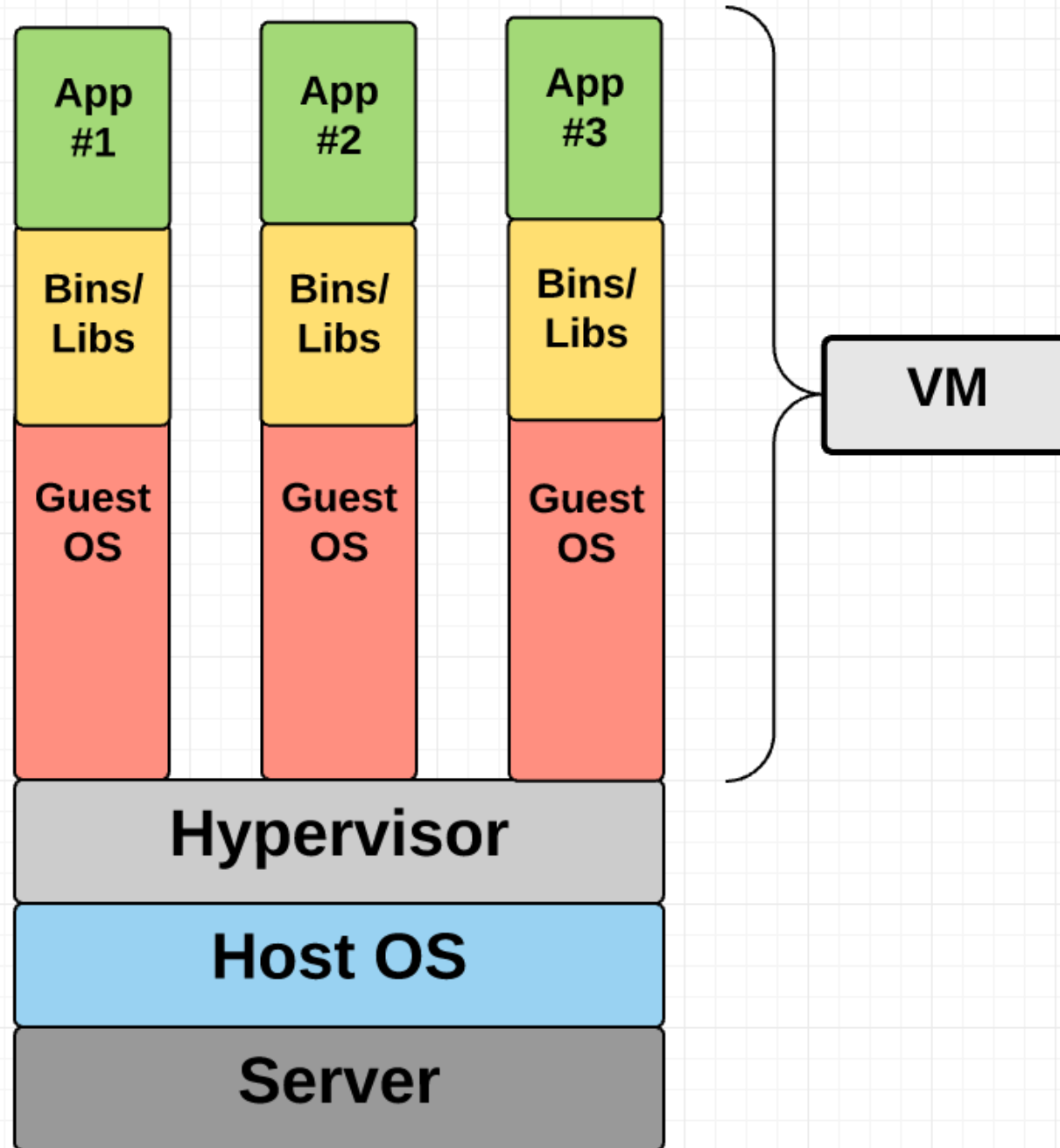
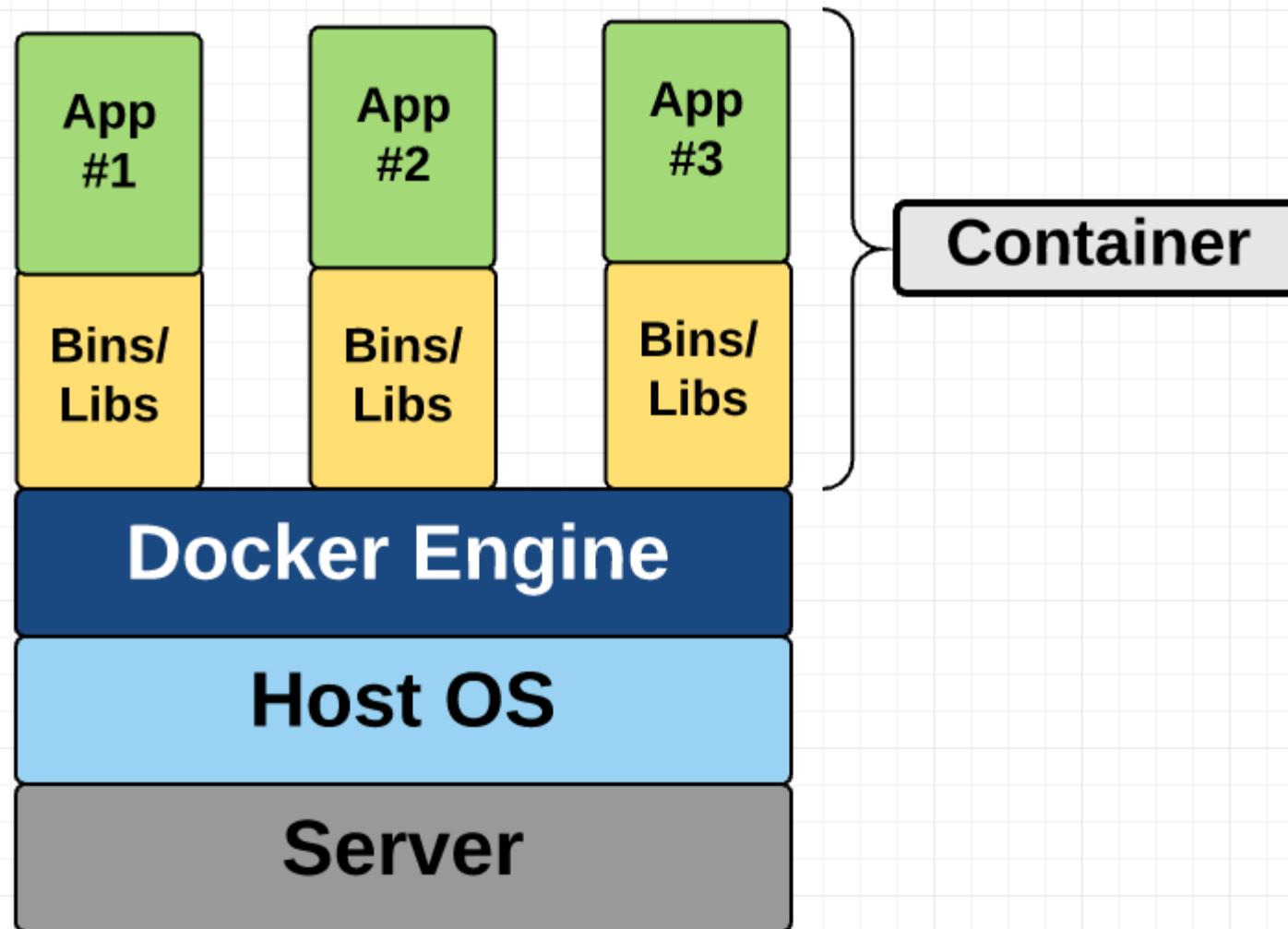
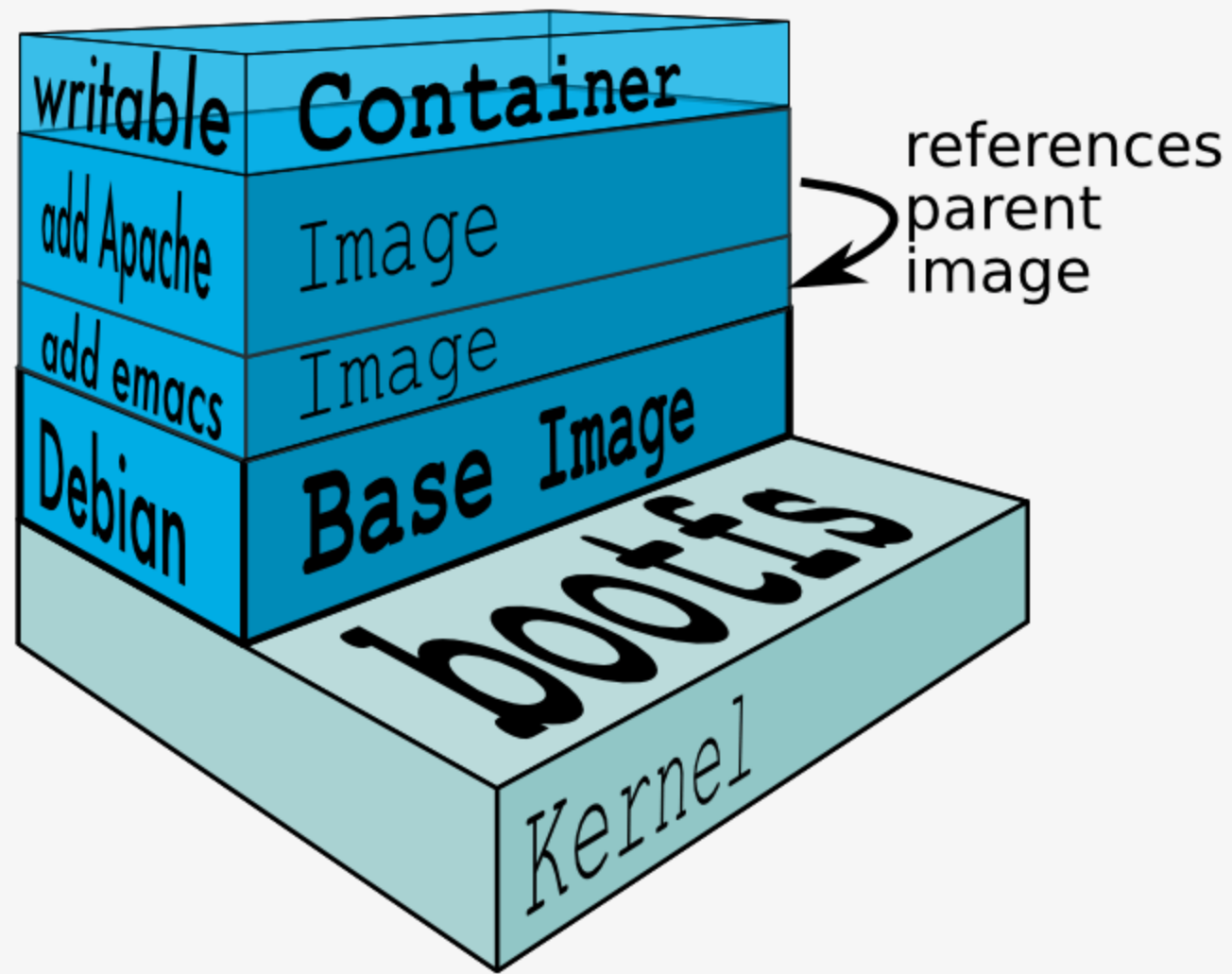


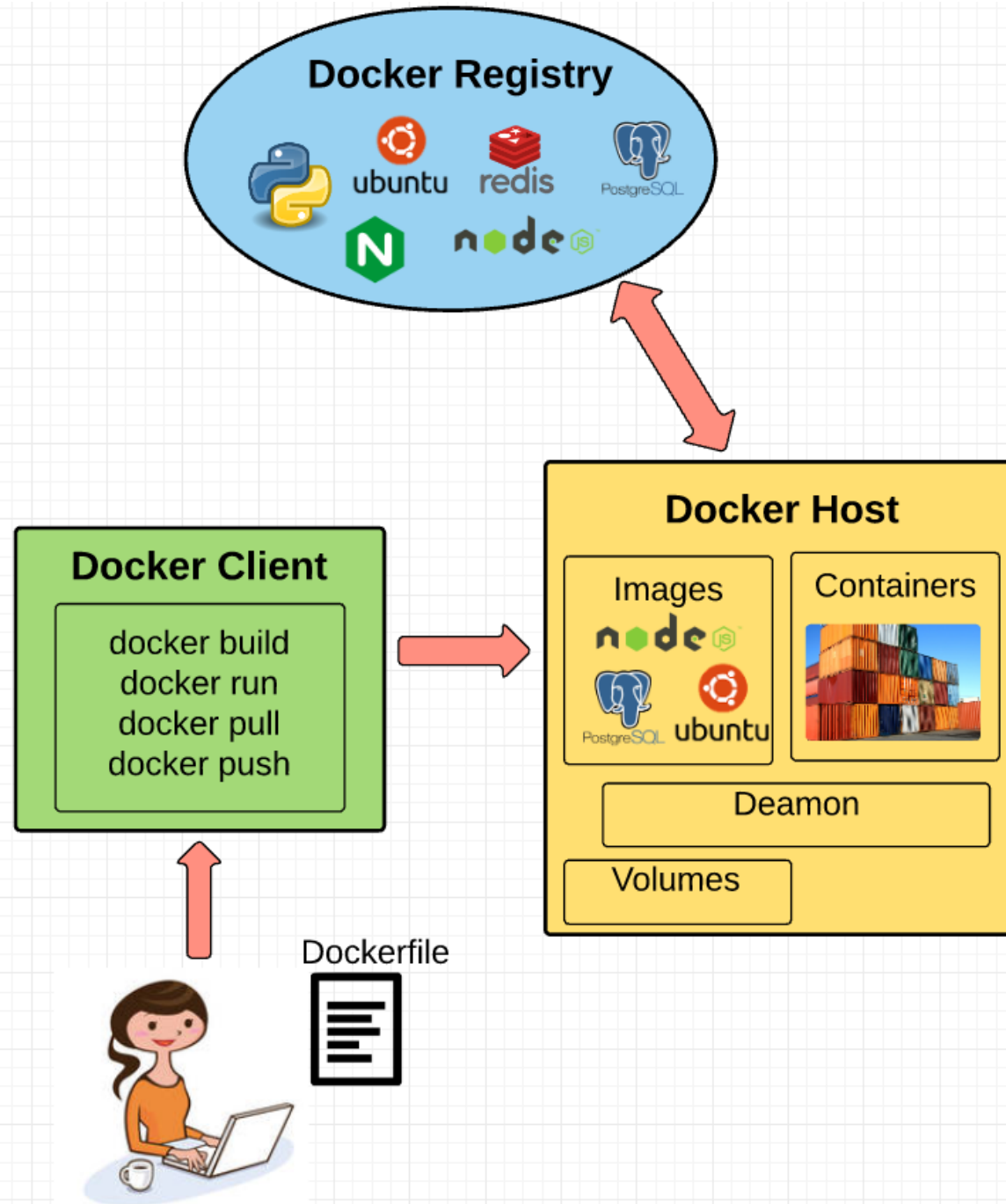
Deployment with K8s







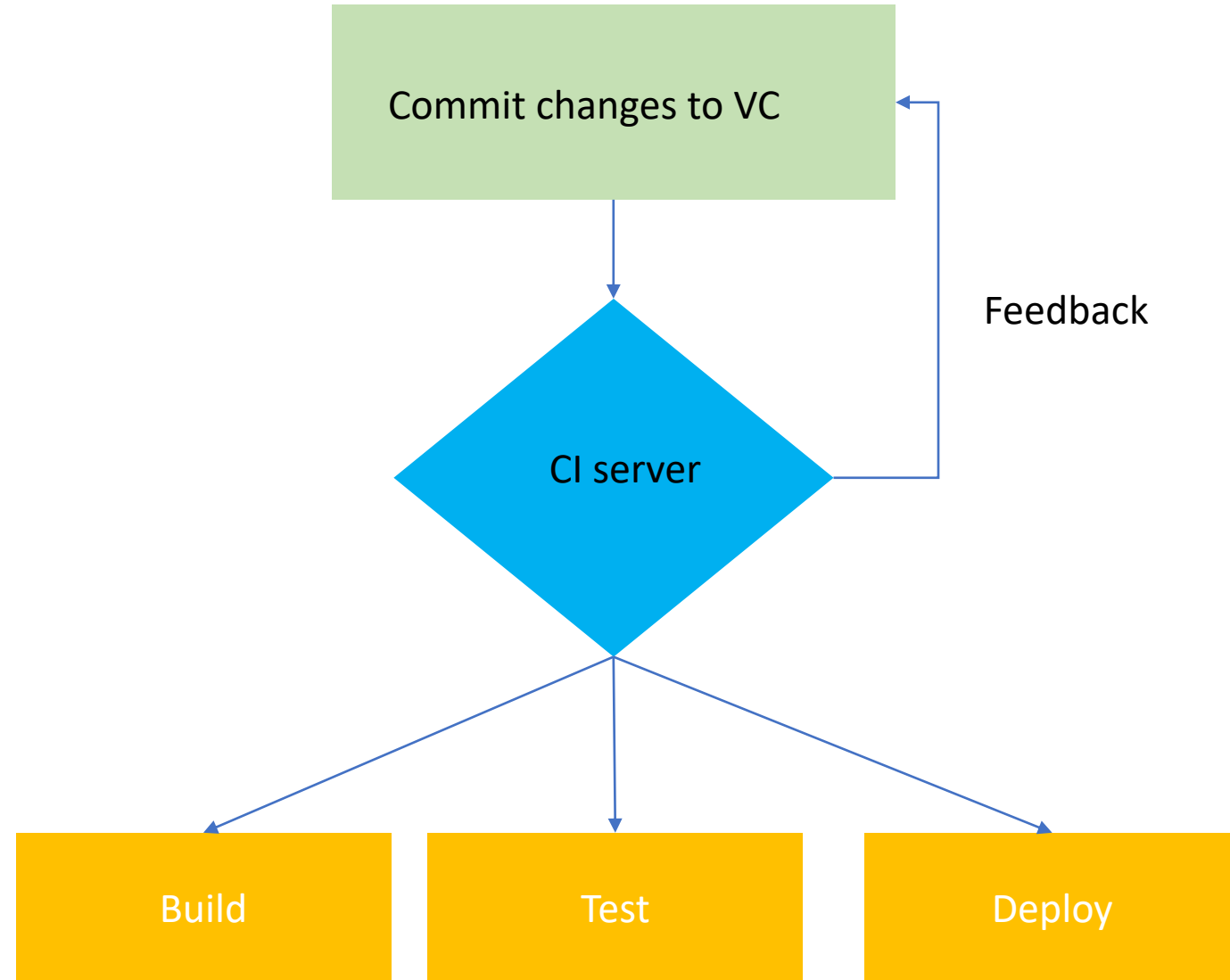


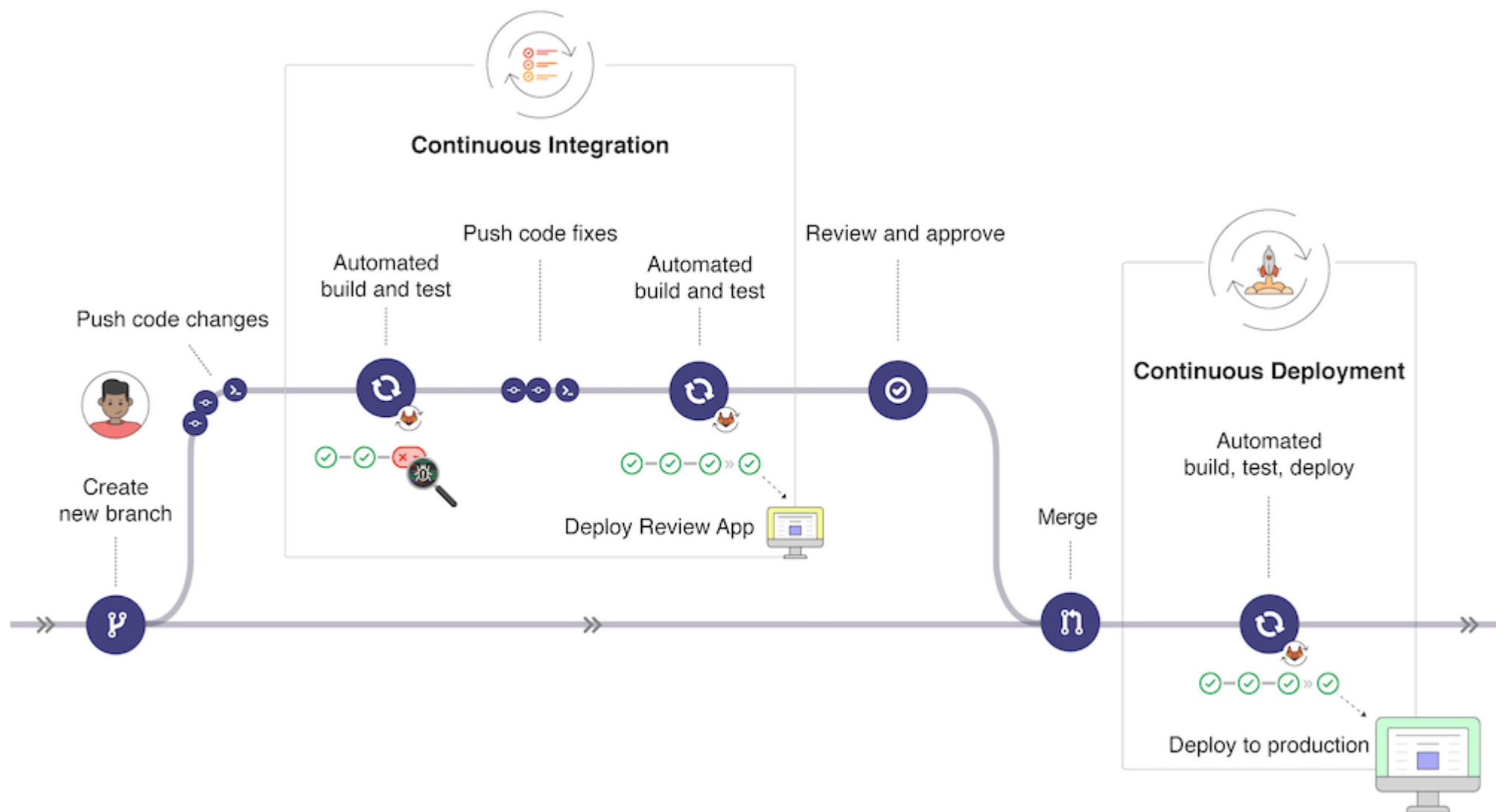


# CI / CD

- Continuous Integration
- Orchestrating builds
- Continuous deployment

CI / CD







# Deployment



- Replica-Sets
- Blue-Green Deployment
- Canary-Deployment

# Deployment

- ⌚ Recreate
  - ⌚ Delete all the old pods and start with the new pods
  - ⌚ Causes application downtime
  - ⌚ Can introduce breaking schema changes
- ⌚ Rolling update
  - ⌚ Start the pods and delete the old pods once the new pods are up and serving traffic
  - ⌚ No downtime
  - ⌚ Cannot introduce breaking schema changes

# K8s Deployment

- Higher order resource for Deployment
- Manages the Replica-Sets
- Creates the Replica-Sets in the background
- Co-ordinates between older and newer versions of Replica-Sets
- No change is needed at the Service and Ingress level

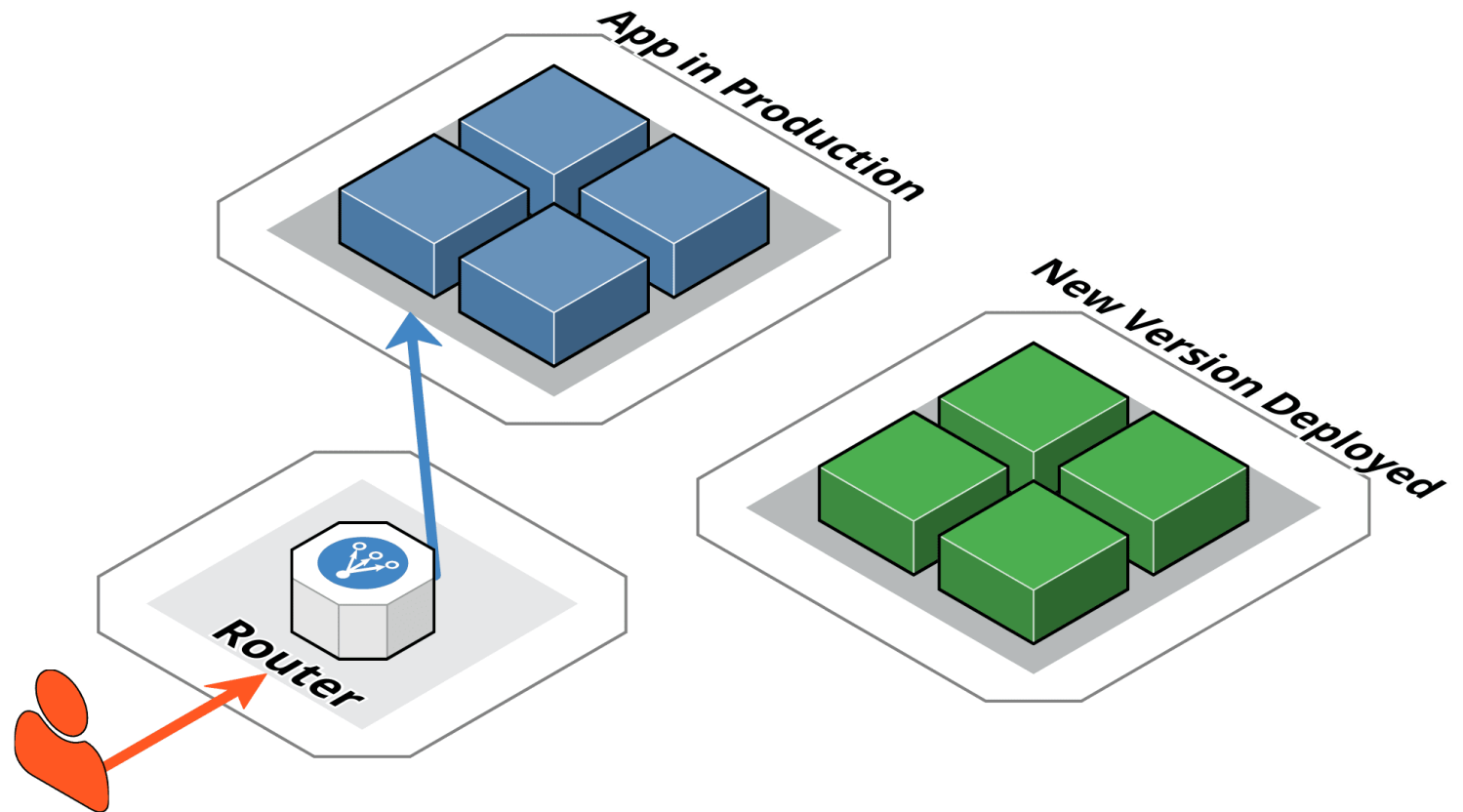
# Deployment Strategies

- Rolling Update
  - Default strategy
  - Removes the pod one by one while adding the pods
  - Application is available through out the deployment steps
  - Use this, when applications supports both versions of the application to run parallelly.

# Deployment Strategies

- Recreate
  - Delete all the pods and replaces with new pods
  - Use this, when different versions of the applications cannot be run parallelly.
  - Application downtime during deployment

# Blue-Green



# K8s Deployment Commands

- 🔄 Deployment
- 🔄 Triggering the rolling update
- 🔄 Pausing the deployment
- 🔄 Resuming the deployment
- 🔄 Status of the deployment