

# Synthetic procedure to replicate the [INFN Open Access Repository](#) (based on [Invenio v3](#) and [Zenodo](#))

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## Step 1 - Create a custom Docker container

- Option A (recommended for long-term projects with heavy customisations)
  - Clone the INFN zenodo repository available at <https://github.com/osct/zenodo-apache-shibboleth-container>
  - Customise it and build the new image with Docker (<https://docs.docker.com/>)
  - Publish the image on Docker Hub (<https://hub.docker.com/>)
- Option B (recommended for tests with light customisations)
  - Pull the INFN zenodo repository available on Docker Hub from <https://hub.docker.com/r/infnct/zenodo>
  - Customise the container
  - Publish the new image on Docker Hub (<https://hub.docker.com/>)

## Step 2 - Install a Kubernetes cluster

- Install Kubernetes (<https://kubernetes.io/docs/setup/independent/install-kubeadm/>) and Docker (<https://kubernetes.io/docs/setup/cri/>) as container runtime interface on a (either real or virtualised) cluster made of a master and at least three nodes

- Connect both master and nodes to a NFS server (<https://wiki.archlinux.org/index.php/NFS>)

### Step 3 - Deploy Zenodo on the Kubernetes cluster

- Create resources and microservices to deploy Zenodo on Kubernetes using yaml configuration files (you can start from the INFN files available at <https://github.com/osct/zenodo-kubernetes> and modify them according to your infrastructure and containers)
- Make sure frontend and worker containers use the Docker Hub image created during Step 1
- Connect to frontend to complete the Zenodo initialisation as described at <https://zenodo.readthedocs.io/en/latest/installation.html#initialization>