

# Deploy your first CI/CD pipeline on Elestio

You are about to learn how to deploy an application from a Git repository to production on any cloud.

First, open the [Elestio dashboard](#) and click on CI/CD

## 1) Select your source


### Create CI/CD pipeline


1 Source


2 Target

3 Configuration

#### 1. Deployment Method

**GitHub**  
GitHub, Inc. is a provider of Internet hosting for software development and version control using Git. It offers the distributed version control and...

**Gitlab**  
GitLab Inc. is the open-core company that provides GitLab, the DevOps software that combines the ability to develop, secure, and...

**Docker compose**  
Compose is a tool for defining and running multi-container Docker applications. With Compose, you use a YAML file to configure your applicatio...

#### 2. Git repository

Import Git Repository

Clone Template

**Import Git Repository**

**Git Account**

amitshuklabag

**Git Scope**

elestio-examples

Search repo

airbyte	19 days ago	Import
angular	3 months ago	Import
astro	3 months ago	Import
bookstack	a month ago	Import
brunch	3 months ago	Import

Import Third-Party Git Repository →

From there click on Github or Gitlab, and you will be asked to provide authorization to list your projects in Elestio.

Then you will be able to browse Organizations & Repositories detected on your account. You can also use the search to find directly your project to deploy. Once you found it, click on Import, then click on next.

## 2) Select your target

Here you have to indicate where the app should be deployed, it can be a "New infrastructure", in that case, you can select your preferred provider/region/instance size. Or an existing infrastructure, then you just have to pick it from the list.

**elestio**

PROJECT: shared-dev

- Services
- Volumes
- Load Balancer
- CI/CD**
- Members
- Billing
- Settings
- Audit Trail

\$426.12 CREDITS  
\$0.0420/hour SPENDING  
[Add credits](#)

### Create CI/CD pipeline

1 Source 2 Target 3 Configuration

#### 1. Choose Deployment Targets

Where do you want this service to be deployed?

New Infrastructure Existing Infrastructure

#### Deployment mode

Single Node Cluster

#### 2. Select Service Cloud Provider

HETZNER DigitalOcean Amazon Lightsail linode VULTR

#### 3. Select Service Cloud Region

Europe North America Asia

ca-central-1  
🇨🇦 Canada - Montreal

us-east-1  
🇺🇸 USA - N. Virginia

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CREDITS

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SPENDING

us-west-2  
USA - Oregon

4 . Select Service Plan

SMALL-1C-2G  
1 CPU 2 GB RAM 60 GB Storage 3 TB Bandwidth included

MEDIUM-2C-4G  
2 CPU 4 GB RAM 80 GB Storage 4 TB Bandwidth included

LARGE-2C-8G  
2 CPU 8 GB RAM 160 GB Storage 5 TB Bandwidth included

XLARGE-4C-16G  
4 CPU 16 GB RAM 320 GB Storage 6 TB Bandwidth included

2XLARGE-8C-32G  
8 CPU 32 GB RAM 640 GB Storage 7 TB Bandwidth included

### 3) Configure your project

This is the last step of the process where you can configure your project name, branch, runtime, and all other settings about your build and environment configuration.


#### a) global settings

Select the Runtime & version matching your project needs. If you are using a framework select it in the framework dropdown, this will auto-populate the build/run commands.

## Create CI/CD pipeline



### Configure your nodejs-express-pug Project

 Define your project build and run

Project Name	Branch
<input type="text" value="nodejs-express-pug"/>	<input type="text" value="main"/>
Runtime	Version
<input type="text" value="NodeJs"/>	<input type="text" value="16.15 (23-06-2022)"/>
Framework	Root Directory
<input type="text" value="No Framework"/>	<input type="text" value="/"/>

Build and Output Setting +

Life cycle scripts (optional) +

Environment variables +

Volume config +

Exposed Ports +

Reverse proxy configuration +

## b) Build settings

You can customize the install/build/run command to suit your requirements.

Build and Output Setting -

Install command	Run command
<input type="text" value="npm install"/>	<input type="text" value="npm start"/>
Build command	Build Output dir
<input type="text" value="npm run build"/>	<input type="text" value="/"/>

## c) Life cycle scripts

In some situations, you will need to execute scripts before or after the installation of a new pipeline to setup your env, install some dependencies, and copy the dataset, ... In those cases, you can define pre/post scripts to execute before/after an installation and other actions like backup/restore. To activate it just indicate your script path relative to the root folder of your git repository.


**Life cycle scripts (optional)**

<b>Pre install command</b>	<b>Post install command</b>
<code>./scripts/preInstall.sh</code>	<code>./scripts/postInstall.sh</code>
<b>Pre Backup command</b>	<b>Post Backup command</b>
<code>./scripts/preBackup.sh</code>	<code>./scripts/postBackup.sh</code>
<b>Pre Restore command</b>	<b>Post Restore command</b>
<code>./scripts/preRestore.sh</code>	<code>./scripts/postRestore.sh</code>

## d) Environment variables

In most case, you will have to indicate configuration for your app through env vars. This is useful to pass various configurations to your app like database connection string, S3 bucket details, email address to use, and other global configurations.

**Environment variables**

 Use Environment variables to store configuration values. API keys and secrets. You can access them in your service like regular environment variables.

`.env`  
1 ENV=production  
2 MY\_PARAM\_1=true  
3

## e) Volumes (data storage)

A lot of apps are totally stateless and don't require any volumes, but some of them need persistent storage to store file uploads, config, logs and other files. You can define one or multiple volumes as folders from the host (CI/CD target instance) mounted into the container. That way the files are persisted and available to the container.

**Volume config**

Host path

Container path

./data

/data


+ Add Another

Host path must be relative and must start with ./

## f) Exposed ports

If your app is listening on port 3000, you should indicate Container port to 3000, then Host port can be the same or anything else. If your app is listening on multiple ports you can add them as additional rows by clicking on "Add another".

**Exposed Ports**

 Configure the ports which should be exposed. When the ports are not exposed publicly, they are only accessible to other Services of the same App via the internal network.

Interface

Host Protocol

Host Port

Container Port

172.17.0.1

HTTP

3000

3000


+ Add Another

If you need to deploy several instances of the same app on a single node you will have to change the host port in the exposed ports > host port and also in reverse proxy > targetport accordingly.

## g) Reverse proxy

Finally to make your app accessible on the internet, indicate in the target port the same thing you have configured on the host port in the previous step, so here is port 3000.


Reverse proxy configuration

 Configure the ports which should be exposed. When the ports are not exposed publicly, they are only accessible to other Services of the same App via the internal network.

Listen			Target			
Protocol	Port		Protocol	IP	Port	Path
HTTPS	443	→	HTTP	172.17.0.1	3000	/
<input type="checkbox"/> Require Basic Auth						
<a href="#">+ Add Another</a>						


It's possible to activate Basic Authentication if you check the corresponding checkbox and define login and password

Reverse proxy configuration

 Configure the ports which should be exposed. When the ports are not exposed publicly, they are only accessible to other Services of the same App via the internal network.

Listen			Target			
Protocol	Port		Protocol	IP	Port	Path
HTTPS	443	→	HTTP	172.17.0.1	3000	/
<input checked="" type="checkbox"/> Require Basic Auth						
			Login		Password	
			root		123	
<a href="#">+ Add Another</a>						

Finally, click on "Create CI/CD pipeline" to complete your deployment.



**Provider**  
Amazon Lightsail


**Region**  
North America, Canada  
Montreal

**Estimated Monthly Price\***  
\$0

\*Estimated monthly price is based on 730 hours of usage.

Create CI/CD pipeline

After a few minutes, your app should be accessible on the CI/CD pipeline url, you can find it in the dashboard overview of your pipeline. Also, each time you commit to your repo code will be rebuilt & re-deployed.



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\$426.08 CREDITS  
\$0.0420/hour SPENDING  
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Back to target

nodejs-express-pug (karpeto-dev)

CI/CD Deployed Success

Open terminal Delete Pipeline

Details Tools Build & Deploy History Domain Management

**Pipeline Details**

CNAME:	nodejs-express-pug-u3.vm.appdrag.net
Deployment method:	Github
Runtime:	NodeJs (16.15)
Framework:	No Framework
Branch name:	main
Repo url:	https://github.com/elestio-examples/nodejs-express-pug

**Manage Stack** View running logs Restart Stack Stop Stack

**Move Pipeline** Move pipeline to new and existing target Move Pipeline

**Created By** You

**Last Deployment** June 29th 2022, 2:43 pm

**Creation time** June 29th 2022, 2:43 pm



Revision #26

Created 29 June 2022 08:46:08 by Joseph Benguira

Updated 29 September 2022 13:31:55 by Amit