

How to Deploy React App on Elestio

So you made a React web application and want to deploy it to the cloud ☐

You probably heard about Kubernetes (and all its complexity) or various options to deploy your apps like Heroku, Render Fly, or Railways. They all have something in common, those products are building your own source code on every commit from your GIT repository.

Elestio is doing the same ... **but different!** Instead of deploying your app to a shared cluster, we deploy to dedicated VMs.

In this tutorial, we will deploy a simple ReactJS app that was created using the create-react-app command. You can use any existing application, create a new one with create-react-app, or simply fork and use our example by following the [link](#).

To learn more about the elestio CI-CD, go [here](#).

<https://www.youtube.com/embed/BhFAWWwF6Q8>

If you're new, sign up for [Elestio](#), otherwise, login to your existing account.

Deploy a ReactJs web app with CI/CD to the cloud

Step 1:

Go to CI/CD from the left sidebar.

Step 2:

Now, select the deployment source.

Create CI/CD pipeline

1 Source

2 Target

3 Configuration

1. Deployment Method



Select the deployment method of your Service between Github, Gitlab and Docker. When using the Github/Gitlab deployment method, each time a change is pushed to your repository, a new deployment of your service will occur.



Github

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



Gitlab

GitLab Inc. is the open-core company that provides GitLab, the DevOps software that combines the ability to develop, secure, and operate software in a single application



Docker compose

Compose is a tool for defining and running multi-container Docker applications. With Compose, you use a YAML file to configure your application's services

In this tutorial, I'm deploying using GITHUB, but you can also use GITLAB if you have a project there.

Step 3:

Select the repository.

If you have already authenticated your GITHUB or GITLAB account in ci-cd for repository access, you can choose the desired repository to deploy directly. Otherwise, you must first authenticate your GIT account with elestio ci-cd for repository access.

2. Git repository

Import Git Repository

Clone Template

Import Git Repository

Git Account

amitshuklabag

Git Scope

elestio-examples

reactjs

reactjs

4 months ago

Selected

Import Third-Party Git Repository →

Step 4:

Choose Deployment Targets

1. Choose Deployment Targets



Where do you want this service to be deployed?

Deploy on a new VM

Deploy on existing VM

Deployment mode

Single Node

Cluster

Elestio offers two types of deployment targets "**Deploy on a new VM**" and "**Deploy on an existing VM**".

You are allowed to set up n pipelines on each elestio Ci-CD target/VM. According to the project configuration you select and the project you're deploying, the number of pipelines varies.

If you want to deploy these projects as a pipeline on a new Target/VM or don't have any installed targets, choose "Deploy on a new VM." If you already have any installed or previously configured ci-cd targets/VMs, choose "Deploy on an existing VM," and then choose the existing target from the targets dropdown.

Follow the steps below only if you select "**Deploy on a new VM**," otherwise click the next button to proceed.

CI/CD Pipelines by Elestio are available with our 5 cloud partners (AWS Lightsail, Digital Ocean, Vultr, Linode & Hetzner) in 85 locations over 27 countries but also on any cloud (AWS, Azure, Google, Oracle, ...) and on-premise with BYOVM.


- Select Service Cloud Provider



- Select Service Cloud Region

Europe North America


fsn1

 Germany - Falkenstein

hel1

 Finlande - Helsinki

nbg1

 Germany - Nuremberg

- Select Service Plan

SMALL-1C-2G
1 CPU 2 GB RAM 20 GB Storage 20 TB Bandwidth included

SMALL-2C-2G
2 CPU 2 GB RAM 40 GB Storage 20 TB Bandwidth included

MEDIUM-2C-4G
2 CPU 4 GB RAM 40 GB Storage 20 TB Bandwidth included

MEDIUM-3C-4G
3 CPU 4 GB RAM 80 GB Storage 20 TB Bandwidth included

- Now Customize the target name and project (where the CICD Target will be created).

5. Provide a name for your new CICD Target instance



The CICD Target name cannot be changed afterwards. This is the name of the instance that will contain one or more pipelines.

Name*

cicd-xttin

6. Select the target project where the CICD Target will be created

elestio-services

“ If you want to deploy it with a different name and a different project, you can customize it. By default, we configure it with a dynamic target name and the current project.

Step 5:

Configure your Project



Define your project build and run

Project Name	<input type="text" value="reactjs"/>	Branch	<input type="text" value="master"/>
Runtime	<input type="text" value="NodeJs"/>	Version	<input type="text" value="16 (27-10-2022)"/>
Framework	<input type="text" value="React"/>	Root Directory	<input type="text" value="/"/>

Here you can configure the project details by filling up the project name, branch, run time, version, framework, and root directory.

Build and Output Setting

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

In the Build and output setting, you can configure your project install, run and build command.

Life cycle scripts (optional)

Pre install command	<input type="text" value="./scripts/preInstall.sh"/>	Post install command	<input type="text" value="./scripts/postInstall.sh"/>
Pre Backup command	<input type="text" value="./scripts/preBackup.sh"/>	Post Backup command	<input type="text" value="./scripts/postBackup.sh"/>
Pre Restore command	<input type="text" value="./scripts/preRestore.sh"/>	Post Restore command	<input type="text" value="./scripts/postRestore.sh"/>

The configuration of life cycle scripts is always optional; they should only be used if you want to execute a specific command before and after building your project. Otherwise, leave them empty.

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
```

You can list all of your project's API keys and secrets here if they were saved in ENV

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

172.17.0.1

Host Protocol

HTTP



Host Port

3000

Container Port

3000



+ Add Another

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

HTTPS



Port

443



Protocol

HTTP



IP

172.17.0.1

Port

3000

Path

/



Require Basic Auth

+ Add Another

The final step is to configure the exposed port and reverse proxy settings. You can specify the port on which your project will run here.

“ If your project includes **elestio.yml**, Elestio will auto-fill all of these fields. As in this tutorial, we're using our Reactjs elestio example, so you can see in the above images that all of our fields are auto-filled.

Refer to these links to learn how to create our own [elestio.yml](#) for the project.

A sample elestio.yml for Reactjs is shown below. check it out on [github](#)

```
config:
  runTime: 'NodeJs'
  version: '16'
  framework: 'React'
  buildCommand: 'npm run build'
  buildDir: 'build'
  runCommand: 'npm run start'
  installCommand: "npm install"
  icon: "src/logo.svg"
  screenshot: "src/screenshot.png"
ports:
- protocol: "HTTPS"
  targetProtocol: "HTTP"
  listeningPort: "443"
  targetPort: "3000"
  targetIP: "172.17.0.1"
  public: true
  path: "/"
  isAuth: false
  login: ""
  password: ""
environments:
- key: 'ENV'
  value: 'production'
webUI:
- url: "https://[CI_CD_DOMAIN]"
```

label: "Website"

Step 6:

Click the **Create CI/CD pipeline** button to deploy your pipeline.



Provider

Hetzner Cloud

Region

Europe, Germany
Falkenstein

Estimated Monthly Price*

\$10

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

Create CI/CD pipeline

In a couple of moments, your application was successfully deployed on [elestio](#) ☐.

Termination protection

Disabled. Pipeline can be terminated.

Protection deactivated



Pipeline Details

CNAME: reactjs-u76.vm.appdrag.net
Deployment method: Github
Runtime: NodeJs (16)
Framework: React
Branch name: master
Repo url: <https://github.com/elestio-examples/reactjs>

Website

Show

View Instructions

View Instructions from README

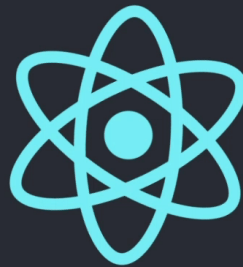
View Instructions

Manage Stack

View running logs

Restart Stack

Stop Stack



Edit `src/App.js` and save to reload.

[Learn React](#)

You can now view your deployed URL and access your application by going to desired application pipeline details.

Please let us know by contacting our support [email](#) or [ticketing](#) system if you give it a shot and encounter any problems or if anything goes wrong.

Join us on [discord](#) to know more.

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