

# Simple ECS + S3 + Node.js Project with CDK Support

Sample node.js/express.js project with AWS S3 and ECS support.

This project assumes you had already installed these tools:

1. [Docker](#)
2. [nvm](#)
3. [AWS CLI](#)
4. [AWS CDK](#)
5. [postman](#)

## Useful informations about project

```
* API URL: CdkSt-simpl-1B0LTS6HUFLZD-410555775.eu-central-1.elb.amazonaws.com
* Web Server: AWS ECS
* App Framework: Node.js/Express.js
* CI/CD: Github Actions, Docker
* Test framework: Jest, Supertest
```

## Installation

- Installation of node and npm using nvm:

```
curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.39.0/install.sh | bash
```

- Running either of the above commands downloads a script and runs it. The script clones the nvm repository to ~/.nvm, and attempts to add the source lines from the snippet below to the correct profile file (~/.bash\_profile, ~/.zshrc, ~/.profile, or ~/.bashrc).

```
export NVM_DIR="$HOME/.nvm"
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm
[ -s "$NVM_DIR/bash_completion" ] && \. "$NVM_DIR/bash_completion" # This loads nvm bash_completion
```

- After *nvm* successfully installed, use the commands below:

```
nvm install 14.17.3
nvm use 14.17.0
```

## Development Environment

You just need to install docker and add *.env* for developing the project.

Sample *.env*

```
S3_REGION=<s3 bucket region for AWS>
S3_ACCESS_KEY_ID=<s3 access key for AWS>
S3_SECRET_ACCESS_KEY=<s3 secret access key for AWS>
S3_BUCKET_NAME=<s3 bucket name>
PORT=<node.js port config>
```

You can start the project using docker.

Below you can find the sample docker usage:

```
cd <this directory>/app
docker build -t simple-s3-app .
docker run -p 80:80 -it simple-s3-app:latest
```

After these commands you can access custom version of spirit using: 1. <http://localhost> 2. <http://127.0.0.1>

## Production Deployment

1. First you need to install and configure your [AWS CLI](#).
2. Install [Nodejs](#) then by using it install [AWS CDK](#).
3. Add *.env* to cdk folder

```
CDK_DEPLOY_ACCOUNT=<aws-deployment-account-id>
CDK_DEPLOY_REGION=<aws-deployment-account-region>
CDK_CLIENT_NAME=<client-name-for-custom-spirit-django>
CDK_PROJECT_ENV=<project-env>

S3_REGION=<s3 bucket region for AWS>
S3_ACCESS_KEY_ID=<s3 access key for AWS>
S3_SECRET_ACCESS_KEY=<s3 secret access key for AWS>
S3_BUCKET_NAME=<s3 bucket name>
PORT=<node.js port config>
```

4. After you installed necessary tools and configure `.env` files you can deploy your stack by using these commands:

```
cd <this-directory>/cdk
npm i
cdk bootstrap
cdk synth
cdk deploy
```

5. You can access the project by checking the application load balancer DNS.
6. You can also import `postman_collection.json`, see and try the endpoints by using postman.