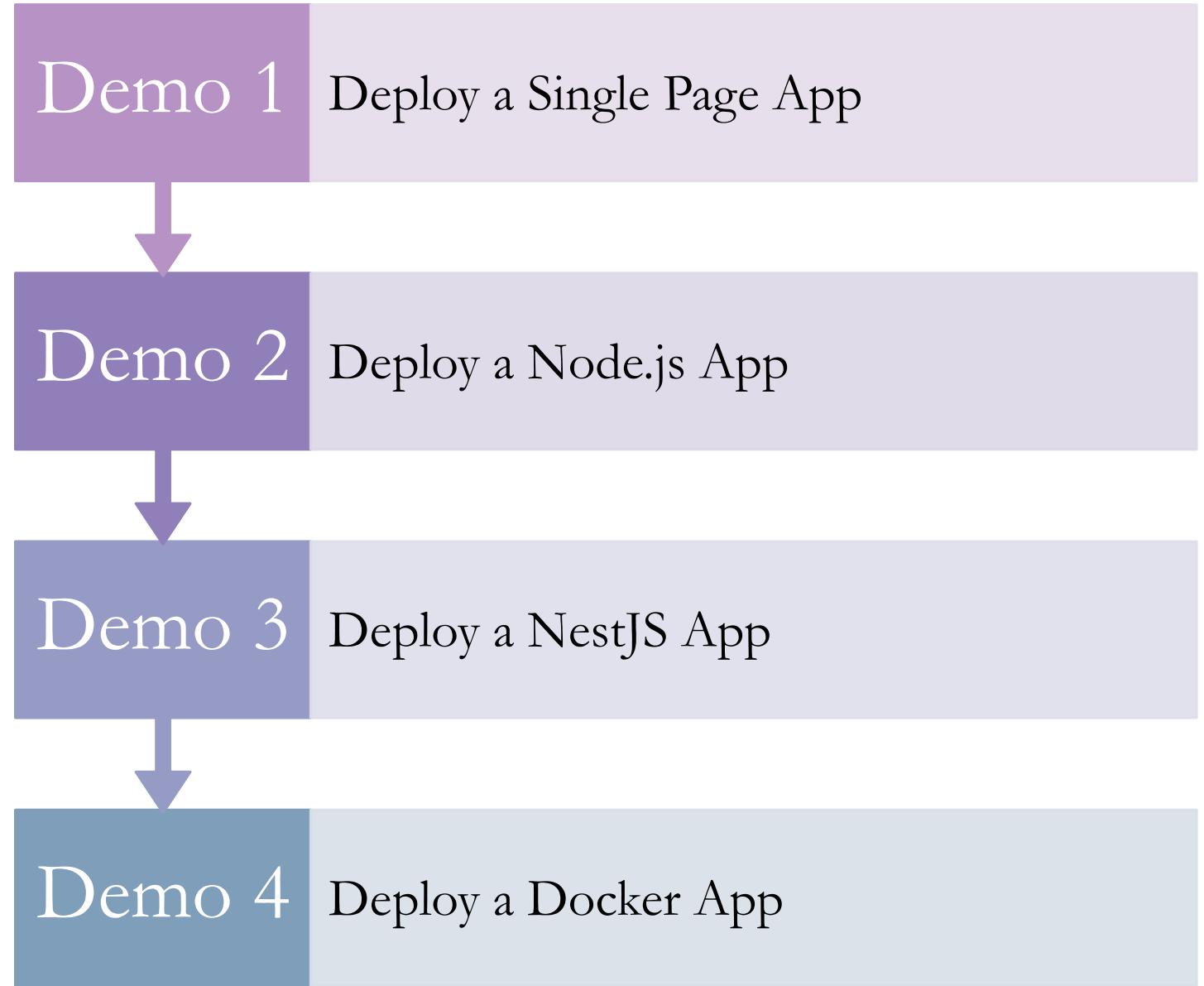


Deploy a custom Linux container to Azure App Service

Azure Taiwan #27: 建構 Azure App Service 容器化應用程式
Carl Su

Overview





Deploy a Single Page App

Demo 1

Prerequisites

Git

Node.js LTS

Visual Studio Code

Azure Storage for Visual Studio Code

Angular CLI

Deploy a Single Page App (1 / 2)

1. Install Azure Storage for Visual Studio Code.
2. Sign in to your Azure account.
3. Make sure you have compiled your app prior to deploying it to Azure.
4. Once you have your app open in Visual Studio Code, click the deploy button in the Azure Storage Explorer to deploy your app.

Deploy a Single Page App (2/2)

1. Create a new Angular web app:
 1. Run `npm install -g @angular/cli`.
 2. Run `ng new my-ng-app`.
 - Add Angular routing.
 - Use SCSS stylesheet format.
 3. Run `cd my-ng-app`.
2. Run `npm run start` and navigate to <http://localhost:4200/>.
3. Deploy the Angular app to Azure Storage.
 1. Run `npm run build`.
 2. Deploy the app `dist/my-ng-app` to Azure Storage
 3. Navigate to <https://bcbcarl.z22.web.core.windows.net/>.

The screenshot shows the Azure Storage blade. On the left, there's a vertical sidebar with icons for GitHub, Azure, and a gear. The main area has a header with a downward arrow and the word "STORAGE". Below the header, there are two items, each preceded by a yellow key icon:

- > Pay-As-You-Go
- > Visual Studio Enterprise

The "Visual Studio Enterprise" item is highlighted with a blue bar. In the top right corner of the list header, there are several icons: a plus sign, an upward arrow (which is highlighted with a blue box), a circular arrow, and a copy/paste icon.



Welcome



my-ng-app app is running!

Resources

Here are some links to help you get started:



[Learn Angular >](#)



Deploy a Node.js App

Demo 2

Prerequisites

Git

Node.js LTS

Visual Studio Code

Azure App Service for Visual Studio Code

Deploy a Node.js app

1. Create a new Express app.
 - Run ``npx express-generator my-express-app --view pug --git``.
 - Run ``cd my-express-app``.
 - Run ``npm install``.
2. Run ``npm run start`` and navigate to <http://localhost:3000/>.
3. Deploy the Express app to Azure App Service.
 - <https://docs.microsoft.com/en-us/azure/app-service/containers/quickstart-nodejs>
 - Navigate to <https://bcbcarl-express.azurewebsites.net/>.

Express

Welcome to Express



Deploy a NestJS App

Demo 3

Prerequisites

Git

Node.js LTS

Visual Studio Code

Azure App Service for Visual Studio Code

NestJS CLI

Deploy a NestJS app

1. Create a new NestJS app:
 1. Run `npm install -g @nestjs/cli`.
 2. Run `nest new my-nest-app`.
 - Set default package manager to npm.
 3. Run `cd my-nest-app`.
2. Run `npm run start` and navigate to <http://localhost:3000/>.
3. Deploy the NestJS app to Azure App Service.
 1. Edit `src/main.ts` to ensure it listens on `process.env.PORT` first.
 2. Run `npm run build`.
 3. Deploy the app to Azure App Service.
 4. Settings -> Configuration -> General Settings -> Startup Command: `npm run start:prod`.
 5. Restart the app and navigate to <https://bcbscarl-nestjs.azurewebsites.net/>.

HTTP Response

HTTP/1.1 200 OK

Content-Length: 12

Content-Type: text/html; charset=utf-8

ETag: W/"c-Lve95gj0VATpfV8EL5X4nxwjKHE"

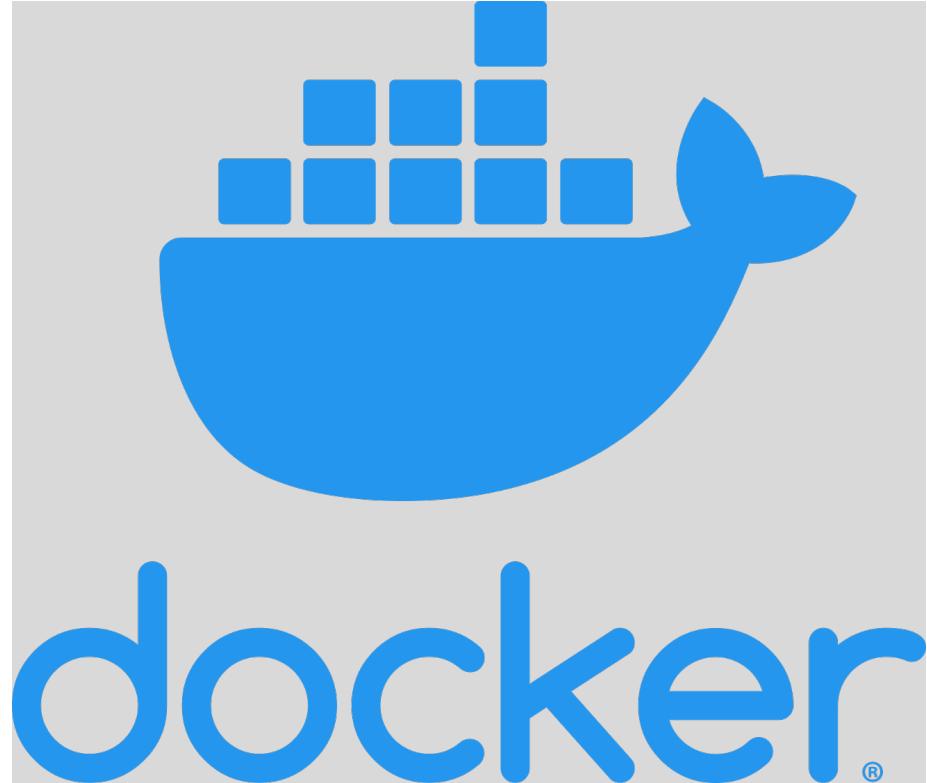
X-Powered-By: Express

Set-Cookie:

ARRAffinity=5e914be2cdc92cc2cda52e4d9438a1e1dadb92aa4fe70b5336ac42f6ef30248
3;Path=/;HttpOnly;Domain=bcbscarl-nestjs.azurewebsites.net

Date: Wed, 05 Feb 2020 12:00:00 GMT

Hello World!%



Deploy a Docker app

Demo 4

Prerequisites

Git

Node.js LTS

Docker

Visual Studio Code

Azure App Service for Visual Studio Code

Docker for Visual Studio Code

Azure CLI

NestJS CLI

Dockerfile

```
FROM node:12-alpine AS builder
WORKDIR /usr/src/app
COPY package*.json ./
RUN npm install --only=development
COPY . .
RUN npm run build
FROM node:12-alpine AS production
ARG NODE_ENV=production
ARG PORT=8080
ENV NODE_ENV=${NODE_ENV}
ENV PORT=${PORT}
WORKDIR /usr/src/app
COPY package*.json ./
RUN npm install --only=production
COPY . .
COPY --from=builder /usr/src/app/dist ./dist
EXPOSE ${PORT}
CMD ["node", "dist/main"]
```

Deploy a containerized NestJS app

1. Run `az acr login --name <acrName>`.
2. Run `az acr update --name <acrName> --admin-enabled true`.
3. Run `cd my-nest-app`.
4. Run `docker pull node:12-alpine`.
5. Run `docker build -t <acrName>/nest-app .`.
6. Run `docker tag bcbcarn/nest-app <acrName>.azurecr.io/my-nest-app`.
7. Run `docker push <acrName>.azurecr.io/my-nest-app`.
8. Deploy the image to Azure App Service.
9. Navigate to <https://bcbcarn-nestjs-2.azurewebsites.net/>.
10. More info: <https://docs.microsoft.com/zh-tw/azure/app-service/containers/quickstart-docker>

Advanced Topics

<https://docs.microsoft.com/azure/app-service/containers/tutorial-multi-container-app>

<https://docs.microsoft.com/azure/app-service/app-service-web-tutorial-custom-domain>

<https://docs.microsoft.com/en-us/azure/azure-monitor/app/app-insights-overview>

<https://docs.microsoft.com/en-us/azure/azure-monitor/app/monitor-web-app-availability>

<https://blog.logrocket.com/containerized-development-nestjs-docker/>

<https://trilon.io/blog/deploy-nestjs-azure-functions>

Thanks!