

Web Based Dashboards

Module # 3 (Deploying the Web Application)

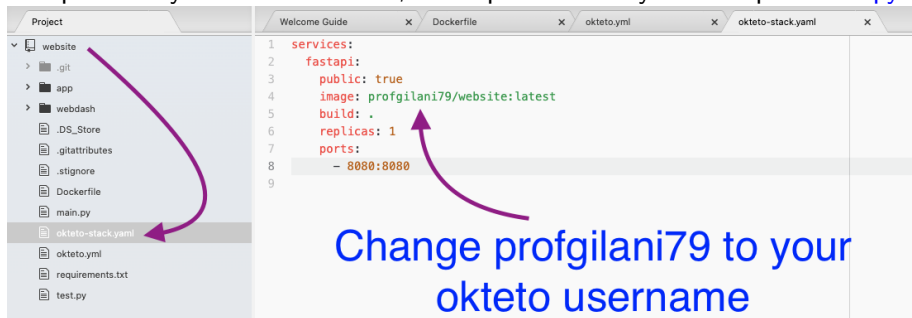
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Step # 1: Download file okteto-stack.yaml from Canvas

In Canvas, I have posted the file named [okteto-stack.yaml](#). Download it and put it in your [website](#) folder, same place where you have put [main.py](#).



The screenshot shows an IDE interface. On the left, a 'Project' sidebar displays a file tree with folders like 'website', 'app', and 'webdash'. The 'website' folder is expanded, showing files including '.DS_Store', '.gitattributes', '.stignore', 'Dockerfile', 'main.py', 'okteto-stack.yaml' (highlighted), 'okteto.yml', 'requirements.txt', and 'test.py'. A purple arrow points from the 'website' folder to 'okteto-stack.yaml'. On the right, the 'okteto-stack.yaml' file is open, showing a YAML configuration for a 'fastapi' service. The 'image' field is set to 'profgilani79/website:latest'. A purple arrow points from the text 'Change profgilani79 to your okteto username' to the 'profgilani79' part of the image path.

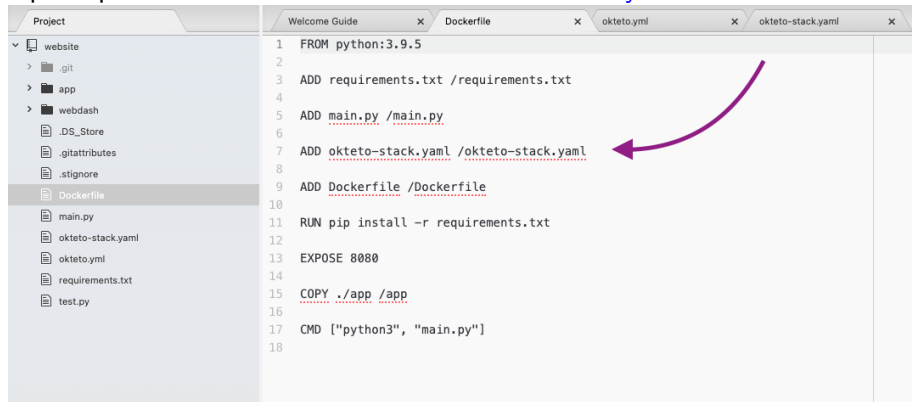
```
1 services:
2   fastapi:
3     public: true
4     image: profgilani79/website:latest
5     build: .
6     replicas: 1
7     ports:
8       - 8080:8080
9
```

Change profgilani79 to your okteto username

Open the code in [atom](#), and change the username [profgilani79](#) to your [okteto](#) username.

Step # 2: Update Dockerfile with okteto-stack.yaml

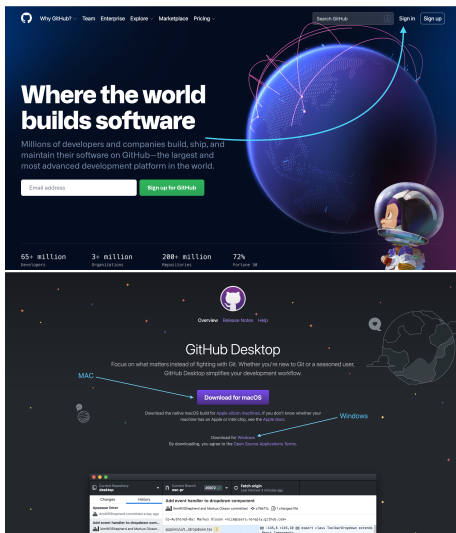
Open up [Dockerfile](#) and now add the [okteto-stack.yaml](#) file to it.



The screenshot shows a code editor with a project explorer on the left and a code editor on the right. The project explorer shows a tree structure with folders like 'website', 'app', and 'webdash', and files like 'main.py', 'okteto-stack.yaml', 'okteto.yml', 'requirements.txt', and 'test.py'. The code editor shows the content of the 'Dockerfile' file, which includes instructions for building a Docker image. A purple arrow points from the 'okteto-stack.yaml' file in the project explorer to the 'ADD okteto-stack.yaml /okteto-stack.yaml' line in the Dockerfile.

```
1 FROM python:3.9.5
2
3 ADD requirements.txt /requirements.txt
4
5 ADD main.py /main.py
6
7 ADD okteto-stack.yaml /okteto-stack.yaml
8
9 ADD Dockerfile /Dockerfile
10
11 RUN pip install -r requirements.txt
12
13 EXPOSE 8080
14
15 COPY ./app /app
16
17 CMD ["python3", "main.py"]
18
```

Step # 3: Create an Account on GitHub

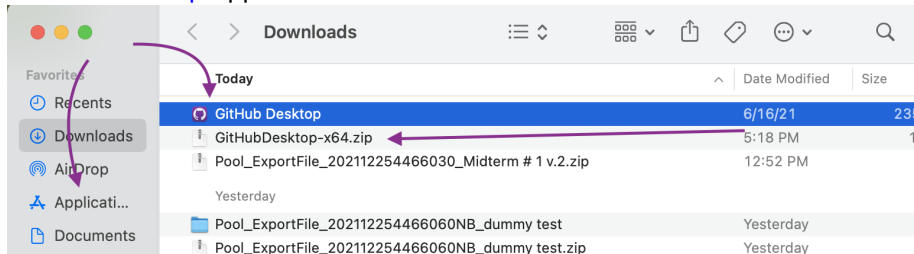


Go to the URL <https://github.com/>, and sign into your **GitHub** account:

Open a new tab, and go to the URL <https://desktop.github.com/>, and click on **download** for your particular operating system:

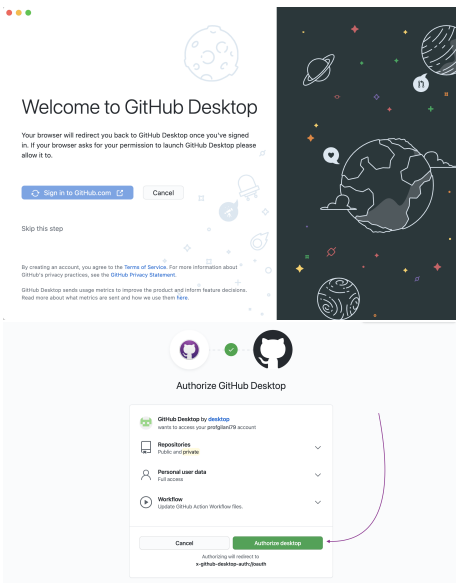
Step # 4: Install GitHub Desktop

For **macs** you will get a **zip file** and for **windows** you will get an **.exe file**. For windows, just execute that file and the installation should be straight-forward. For macs, when you unzip your file you will see the **GitHub Desktop** application in downloads.



Move the **GitHub Desktop** application into your **Applications** folder. Now you can launch it from Applications.

Step # 5: Launch GitHub Desktop



Go to the URL <https://github.com/>, and sign into your **GitHub** account:

Open **GitHub Desktop** and log in and authorize it to be run on your laptop. It might ask you to log in via a browser again.

Step # 6: Configure and Add Repository

Configure Git

This is used to identify the commits you create. Anyone will be able to see this information if you publish commits.

- ☒ Use my GitHub account name and email address
- ☐ Configure manually

Name
profgilani79

Email
85319998+profgilani79@users.noreply.github.com

[Finish](#) [Cancel](#)

Example commit
Fix all the things
profgilani79 - 30m

Let's get started!

Add a repository to GitHub Desktop to start collaborating

[Create a Tutorial Repository...](#)

[Clone a Repository from the Internet...](#)

[Create a New Repository on your Hard Drive...](#)

[Add an Existing Repository from your Hard Drive...](#)

ProTip! You can drag & drop an existing repository folder here to add it to Desktop

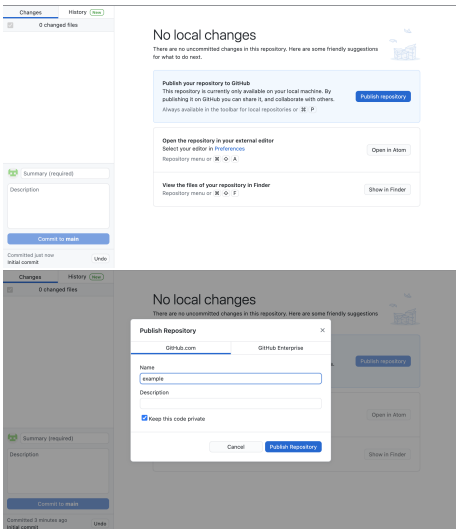
Filter your repositories

Looks like there are no repositories for profgilani79 on GitHub.com. [Refresh this list](#) if you've created a repository recently.

Keep the same login information and click **Finish**.

Now we need to create a **repository**. A repository contains all of your project's files and each file's revision history. You can manage your project's work within the repository. We already have a folder where we started working on a project. We will make that folder our repository. Select **Add an Existing Repository from your Hard Drive..**

Step # 7: Publish Repository



Click on **Publish Repository**.

Now give your **Repository** a name.
(Do not name it example!!!) It is up to you, if you want to keep your project code private or public. I keep my work code private for obvious reasons.

And now you see in the top left corner, the **Current Repository** is pointed to whatever the **name** of your repository is.

Step # 8: Deploy to Okteto!

The screenshot displays the Okteto dashboard for the namespace 'profgilani79'. The left sidebar contains navigation links for Namespaces, Settings, Start Pro Free Trial!, and Help. The main panel shows a list of pipelines: 'website' (Deployed), 'fastapi' (Running), and 'okteto-website' (Unused). A pink arrow points to the 'Deploy' button in the top navigation bar. Below the pipeline list, the details for the 'website' pipeline are shown, including endpoints, repository, branch, and creation time. The 'Logs' tab is selected, displaying the deployment process logs.

Namespace: **profgilani79** Deploy Share Pods: 1 / 10 Storage: 2GB / 5GB

website Pipeline Deployed Redeploy Destroy

Endpoints: <https://fastapi-profgilani79.cloud.okteto.net> Repository: <https://github.com/profgilani79/website.git> Branch: **main** Created: 15 hrs ago Last updated: 34 mins ago

Logs **YAML**

```
Cloning git repository 'https://***:***@github.com/profgilani79/website.git' branch 'main'...
Cloning into '/okteto/src'...
Running okteto pipeline at commit c81c1b347422f21400083a58bef859279b4f9d40...
Processing file 'okteto-stack.yaml'

Running 'okteto stack deploy --build -f okteto-stack.yaml'...
i Running your build in tcp://buildkit.cloud.okteto.net:1234...
i Building image for service 'fastapi'...
#1 [internal] load build definition from buildkit-125362277
#1 sha256:06c306d0c06a3a370631a4bd702c0e89aba02e028c104dfdece40d7c3df23864
```

Log into **Okteto** and now click on **Deploy**.

Step # 8: Deploy to Okteto - Continued

cloud.okteto.com

From Git

From Compose

From Chart

Help

Deploy

Source

Github Git URL

Repository Missing a repo? [Configure Github](#)

profgilani79

Search

website · just now

Variables

Cancel Deploy

Your first time, you will not see your Repository, Okteto will ask you to configure it.

Step # 8: Deploy to Okteto - Continued

From Git

From Compose

From Helm

From Chart

Deploy

Source

GitHub

Git URL

Repository

riamana

▼

🔍 Search

No repositories found

Configure the Okteto app on GitHub to grant access to the repositories in your account.

+ Configure GitHub

Variables

>

Help

Cancel

Deploy

Install & Authorize on your organization Okteto

☒ All repositories

This applies to all current *and* future repositories.

☐ Only select repositories

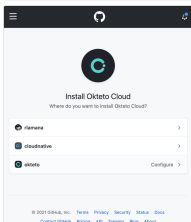
with these permissions:

✓ Read access to code, members, and metadata

✓ Read access to emails

Install & Authorize

Cancel



When you configure Okteto with your Github Account, it will ask you to install [okteto cloud](#), select your username. From there it will ask you to select your repositories (give okteto full access to your github account). You will finally be able to click on [Deploy](#).

It is Deployed

The screenshot displays the Okteto dashboard for the namespace 'profgilani79'. On the left sidebar, the 'Namespaces' section is active, showing a list of pipelines: 'website' (Deployed), 'fastapi' (Running), and 'okteto-website' (Unused). An arrow points from the 'website' pipeline to the main content area. The main content area shows details for the 'website' pipeline, including its endpoints, repository, branch, and creation/last update times. A 'new URL!' label with an arrow points to the endpoint 'https://fastapi-profgilani79.cloud.okteto.net'. Below this, there are buttons for 'Logs' and 'YAML'. The 'Logs' button is selected, showing a log of the deployment process. An arrow labeled 'Log Activity' points from the 'Log Activity' text to the log output. The log output shows the successful deployment of the 'fastapi' service and the 'website' stack.

Namespace: profgilani79

Deploy Share

new URL!

Pods: 1 / 10 Storage: 2GB / 5GB

Namespaces

- website Pipeline (Deployed)
- fastapi Deployment (Running)
- okteto-website Dev Volume (Unused)

Settings

Start Pro Free Trial!

Help

Endpoints: <https://fastapi-profgilani79.cloud.okteto.net>

Repository: <https://github.com/profgilani79/website.git>

Branch: main Created: 16 hrs ago Last updated: 59 mins ago

Logs

```
#11 DONE 0.3s

#12 exporting to image
#12 sha256:e8c613e07b0b7ff33893b694f7759a10d42e180f2b4dc349fb57dc6b71dcab00
#12 exporting layers
#12 exporting layers 14.3s done
#12 exporting manifest sha256:0d724025751a24573falcfb73534f87648bd84c4d37e08e2aa9a56774be1cb
#12 exporting manifest sha256:0d724025751a24573falcfb73534f87648bd84c4d37e08e2aa9a56774be1cb 0.1s done
#12 exporting config sha256:53c60c174e9de5bc199e80e9a63036e30ccdd1fd57c7cf53b843c7624cf97f53 0.1s done
#12 pushing layers
#12 pushing layers 6.6s done
#12 pushing manifest for registry.cloud.okteto.net/profgilani79/website-fastapi:okteto
#12 pushing manifest for registry.cloud.okteto.net/profgilani79/website-fastapi:okteto 0.6s done
#12 DONE 21.8s
✓ Image for service 'fastapi' successfully pushed
Deploying stack 'website'...
Deploying service 'fastapi'...
✓ Deployed service 'fastapi'
Deploying service 'fastapi'...
Waiting for services to be ready...
✓ Stack 'website' successfully deployed

FINISHED: okteto pipeline successfully executed!
```

You will notice a lot of activity in the bottom right window. Okteto, is taking care of all the work behind the scenes. At the top left, you will also notice the name of our repository. Finally, the new URL is at the top right, click on it.

Deployed Application

The screenshot displays the Okteto dashboard for a namespace named 'profgilani79'. On the left sidebar, the 'Namespaces' section is active, showing a list of pipelines: 'website' (Deployed), 'fastapi' (Running), and 'okteto-website' (Unused). An arrow points from the 'website' pipeline to the main content area with the text 'deployed from github'. The main content area shows details for the 'website' pipeline, including its endpoints, repository, and a log of its execution. An arrow points to the 'Endpoints' field with the text 'new URL!'. Another arrow points to the 'Log Activity' section with the text 'Log Activity'. The log shows the successful deployment of the 'fastapi' service.

Namespace: profgilani79

Deploy Share

new URL!

Pods: 1 / 10 Storage: 2GB / 5GB

Namespaces

- website Pipeline Deployed
- fastapi Deployment Running
- okteto-website Dev Volume Unused

Settings

Start Pro Free Trial!

Help

Endpoints: <https://fastapi-profgilani79.cloud.okteto.net> Repository: <https://github.com/profgilani79/website.git> Branch: main Created: 16 hrs ago Last updated: 59 mins ago

Log Activity

Log YAML

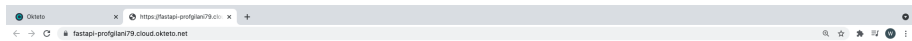
```
#11 DONE 0.3s

#12 exporting to image
#12 sha256:e8c613e07b0b7ff33893b694f7759a10d42e180f2b4dc349fb57dc6b71dcab00
#12 exporting layers
#12 exporting layers 14.3s done
#12 exporting manifest sha256:0d724025751a24573falcfb73534f87648bd84c4d37e08e2aa9a56774be1ecb
#12 exporting manifest sha256:0d724025751a24573falcfb73534f87648bd84c4d37e08e2aa9a56774be1ecb 0.1s done
#12 exporting config sha256:53c60c174e9de5bc199e80e9a63036e30ccdd1fd57c7cf53b843c7624cf97f53 0.1s done
#12 pushing layers
#12 pushing layers 6.6s done
#12 pushing manifest for registry.cloud.okteto.net/profgilani79/website-fastapi:okteto
#12 pushing manifest for registry.cloud.okteto.net/profgilani79/website-fastapi:okteto 0.6s done
#12 DONE 21.8s
✓ Image for service 'fastapi' successfully pushed
Deploying stack 'website'...
Deploying service 'fastapi'...
✓ Deployed service 'fastapi'
Deploying service 'fastapi'...
Waiting for services to be ready...
✓ Stack 'website' successfully deployed

FINISHED: okteto pipeline successfully executed!
```

You will notice a lot of activity in the bottom right window. Okteto, is taking care of all the work behind the scenes. At the top left, you will also notice the name of our repository. Finally, the new URL is at the top right, click on it.

Your First Web Application



```
{"message": "HELLO WORLD!!! I want to eat Pizza!!"}
```