





  mehmetimga / dsci522-dockerfile-practice

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 **mehmetimga** Add links to GitHub repository and DockerHub image in README.md for e... f1a17ea · now 

 .github/workflows	Add GitHub Actions workflow to buil...	yesterday
 Dockerfile	Add Dockerfile to define the environ...	yesterday
 LICENSE.md	Add LICENSE.md file with MIT Licen...	yesterday
 Makefile	Add Makefile to automate conda loc...	yesterday
 README.md	Add links to GitHub repository and ...	now
 conda-linux-64.lock	Update conda-lock file for Linux pla...	yesterday
 environment.yml	Rename conda environment to 'dsci...	yesterday

 README  License

This project creates a Docker image for data science project.

Links

- **GitHub Repository:** <https://github.com/mehmetimga/dsci522-dockerfile-practice>
- **DockerHub Image:** <https://hub.docker.com/r/mehmetimga/dsci522-dockerfile-practice>

What is Docker?

Docker is a tool that packages software into containers. A container is like a box that has everything your code needs to run. It works the same way on any computer.

What is in this project?

File	What it does
environment.yml	Lists the Python packages we need (pandas, scikit-learn)
conda-linux-64.lock	Locks the exact versions of all packages
Dockerfile	Instructions to build the Docker image
Makefile	Easy commands to build and test
.github/workflows/docker-publish.yml	Automatically builds and uploads the image

Packages included

- **Python 3.11** - The programming language
- **pandas 2.2.3** - For working with data tables
- **scikit-learn 1.6.0** - For machine learning

How to use

Build the Docker image

```
make build
```



Test the image

```
make test
```



Run all steps

```
make all
```



How it works

1. We start with a base image from Jupyter
2. We copy our package list into the image
3. We install the packages
4. The image is ready to use!

GitHub Actions

When you push changes to the Dockerfile, GitHub will:

1. Build the image automatically

2. Push it to DockerHub

You need to add these secrets to your GitHub repository:

- DOCKER_USERNAME - Your DockerHub username
- DOCKER_PASSWORD - Your DockerHub password

Author

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Languages

● Makefile 76.1% ● Dockerfile 23.9%