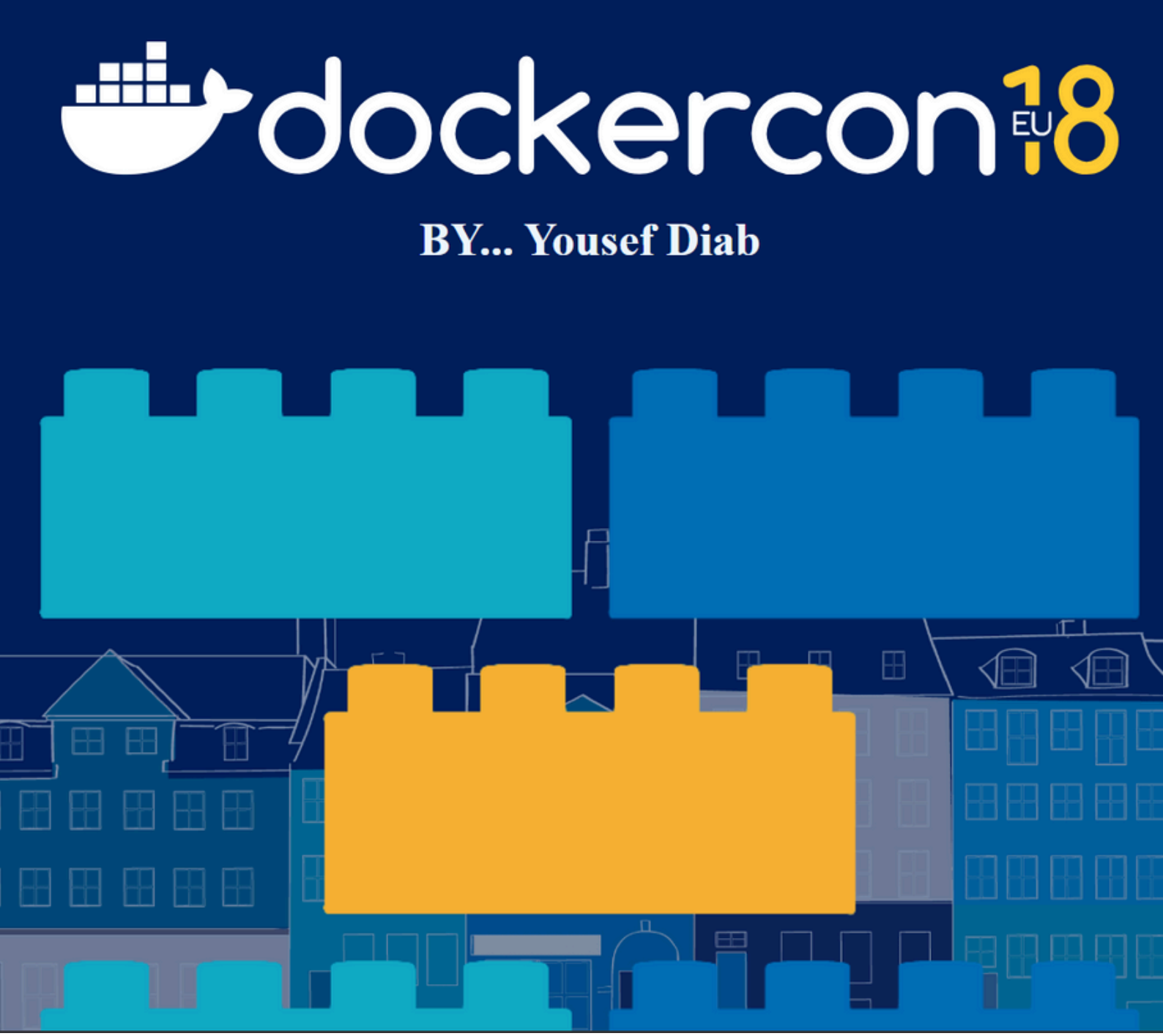

Automated Devops website

MADE BY

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INRO/OVERVIEW

This project focuses on creating a full DevOps pipeline using various tools, such as Docker, Jenkins, Terraform, and AWS. It integrates infrastructure as code (IaC) practices, continuous integration (CI), and continuous deployment (CD) to automate the deployment process for modern applications.
This project is a dockercon E18 web platform that Youssef designed as a page for his graduation project at the Ministry of Communications. The main goal of this project is to create an easy-to-use web application and upload the project to a working server with images of Docker, Jenkins, Terraform, and AWS

2. Project Overview

The pipeline automates the following:

1 - webpage

web page dockercon E18 using html,css,js and Database

2 - Jenkins

Automated build and deployment process with continuous integration.

3 - Terraform

Infrastructure provisioning on AWS using infrastructure as code.

4 - AWS

Cloud platform for hosting, scaling, and securing applications.

Tools Used

Docker: Used for containerizing the application, ensuring consistent environments across different stages.

Jenkins: Used to automate the CI/CD pipeline, including building, testing, and deploying the application.

Terraform: Managed the cloud infrastructure by writing code to define the AWS environment, ensuring reproducibility and scalability.

AWS: Provided the cloud environment where the application is hosted, utilizing services like EC2, S3, and Load Balancers.

4. Project Structure
The project files are organized as follows:

Dockerfile: Used for containerizing the application.

Jenkinsfile: Defines the CI/CD pipeline, including stages for building and deploying the Docker image.

Terraform Scripts: Provision the required AWS infrastructure, such as VPCs, subnets, and security groups.

Project Highlights:

- Developed and configured Docker containers for application deployment.
- Set up CI/CD pipelines using Jenkins to automate the build and deployment processes.
- Used Terraform to define and provision infrastructure on AWS, including VPCs, subnets, and security groups.
- Integrated all components and hosted the project on GitHub for version control and collaboration.

GitHub Repository:
The entire project, including the Docker configurations, Jenkins pipeline scripts, Terraform files, and other resources, is available on GitHub.

You can find the complete source code on GitHub:
Diab_Finall_Poject_DevOps_depi

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ALL

Thank You