

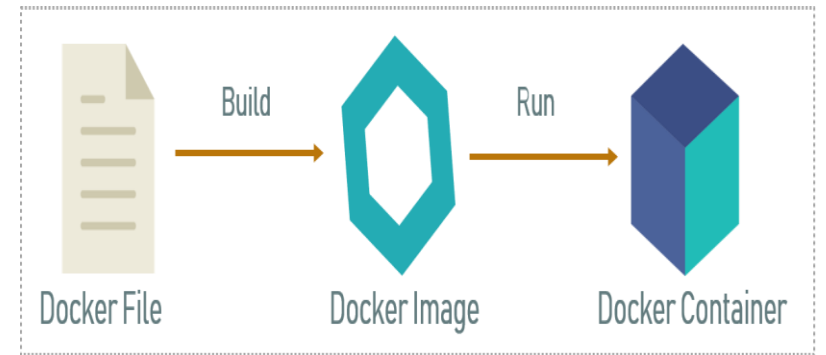
# Angular and Spring boot application Implemented in docker and EC2.

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# Docker

- Docker is an open source platform that enables developers to build, deploy, run, update and manage containers—standardized, executable components.
- That combine application source code with the operating system (OS) libraries and dependencies required to run that code in any environment.
- It is mainly used as a software development platform for developing distributed applications that work efficiently in different environments.



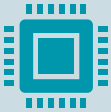
# Docker File



A Dockerfile is a text file that contains instructions for building a Docker image.



It specifies the base image to use, the dependencies to install, and the commands to run when the image is being built.



With a Dockerfile, you can define the environment and configuration of your application, making it reproducible and portable across different systems.

# Docker Compose File

- Docker Compose is a tool used for defining and running multi-container Docker applications.
- A Docker Compose file is a YAML file that allows you to define the services, networks, and volumes required for your application.
- In a Docker Compose file, you can specify the configuration for each service, such as the Docker image to use, environment variables, port mappings, and dependencies between services.
- By using a Docker Compose file, you can easily manage complex multi-container applications and deploy them with a single command.

# Docker Commands

## For Angular

- `docker login`
- `docker build -t username/angular-app .`
- `docker run -d -it -p 80:80/tcp --name angular-app username/ angular-app:latest`

## For Spring boot

- `docker-compose down`
- `mvn clean install -DskipTests=true`
- `docker-compose up`

# Amazon EC2 (Elastic Compute Cloud)

- Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, resizable compute capacity in the cloud.
- It is designed to make web-scale cloud computing easier for developers.
- Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.

# S3 Bucket

1. S3 can be used as a storage location for your application code. You can upload your application code, such as web application files or server executables, to an S3 bucket.
2. Then, during the deployment process on your EC2 instance, you can fetch the code from the S3 bucket and deploy it to the appropriate directories. This approach simplifies code distribution and allows you to centralize your application artifacts in a reliable and scalable storage solution.

# References

1. <https://youtu.be/t6khLJDZTyQ>
2. <https://youtu.be/a5yR8wYkggs>



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Thank you