1. Исходный код простого приложения

```java
package org.docker;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;

@SpringBootApplication
public class Main {
    public static void main(String[] args) {
        SpringApplication.run(Main.class, args);
    }
}
```

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Docker</title>
</head>
<body>
<h1>Docker Example</h1>
</body>
</html>
```

```yaml
server:
  port: 80
  servlet:
    context-path: /
```

2. Содержимое Dockerfile с комментариями

```
# Используем базовый образ с JDK 17
FROM openjdk:17-jdk-slim

# Устанавливаем рабочую директорию в контейнере
WORKDIR /app

# Копируем .jar файл приложения в контейнер
COPY target/dockerExample-1.0.jar /app/dockerExample-1.0.jar

# Устанавливаем команду для запуска приложения
CMD ["java", "-jar", "/app/dockerExample-1.0.jar"]
```

docker-compose.yml

```
version: '3.8'

services:
  example:
    build:
      dockerfile: Dockerfile # докер файл
    container_name: front # имя контейнера
    image: example # Образ докер
    restart: unless-stopped # перезагрузка по любым случаям, кроме остановки контейнера.
    ports:
      - "0.0.0.0:80:80" # 80 порт приложения, 80 внешний порт докера, на локальный адресс устроі
```

3. Сборка приложения:

```
mvn clean install
```

```
PS D:\Programming\JAVA\MIFI\dockerExample> mvn clean install
[INFO] Scanning for projects...
[INFO]
[INFO] --------------------< org.docker:dockerExample >--------------------
[INFO] Building dockerExample 1.0
[INFO]   from pom.xml
[INFO] --------------------------------[ jar ]---------------------------------
[INFO]
[INFO] --- clean:3.3.2:clean (default-clean) @ dockerExample ---
[INFO] Deleting D:\Programming\JAVA\MIFI\dockerExample\target
[INFO]
[INFO] --- resources:3.3.1:resources (default-resources) @ dockerExample ---
[INFO] Copying 1 resource from src\main\resources to target\classes
[INFO] Copying 1 resource from src\main\resources to target\classes
[INFO]
[INFO] --- compiler:3.13.0:compile (default-compile) @ dockerExample ---
[INFO] Recompiling the module because of changed source code.
[INFO] Compiling 1 source file with javac [debug parameters release 17] to target\classes
[INFO]
[INFO] --- resources:3.3.1:testResources (default-testResources) @ dockerExample ---
[INFO] skip non existing resourceDirectory D:\Programming\JAVA\MIFI\dockerExample\src\test\resources
[INFO]
[INFO] --- compiler:3.13.0:testCompile (default-testCompile) @ dockerExample ---
[INFO] Recompiling the module because of changed dependency.
[INFO]
[INFO] --- surefire:3.2.5:test (default-test) @ dockerExample ---
[INFO]
[INFO] --- jar:3.4.2:jar (default-jar) @ dockerExample ---
[INFO] Building jar: D:\Programming\JAVA\MIFI\dockerExample\target\dockerExample-1.0.jar
[INFO]
[INFO] --- spring-boot:3.3.4:repackage (repackage) @ dockerExample ---
[INFO] Replacing main artifact D:\Programming\JAVA\MIFI\dockerExample\target\dockerExample-1.0.jar with repackaged archive, adding nested dependencies in BOOT-INF/.
[INFO] The original artifact has been renamed to D:\Programming\JAVA\MIFI\dockerExample\target\dockerExample-1.0.jar.original
[INFO]
[INFO] --- install:3.1.3:install (default-install) @ dockerExample ---
[INFO] Installing D:\Programming\JAVA\MIFI\dockerExample\pom.xml to C:\Users\vlastelin\.m2\repository\org\docker\dockerExample\1.0\dockerExample-1.0.pom
[INFO] Installing D:\Programming\JAVA\MIFI\dockerExample\target\dockerExample-1.0.jar to C:\Users\vlastelin\.m2\repository\org\docker\dockerExample\1.0\dockerExample-1.0.jar
[INFO] ------------------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------------------
[INFO] Total time:  2.056 s
[INFO] Finished at: 2024-11-19T18:40:12+05:00
[INFO] ------------------------------------------------------------------------
PS D:\Programming\JAVA\MIFI\dockerExample>
```

4. Команду сборки образа и запуск в фоне. -d

```
docker-compose -p example up --build -d
```

```
PS D:\Programming\JAVA\MIFI\dockerExample> docker-compose -p example up --build -d
time="2024-11-19T18:38:09+05:00" level=warning msg="D:\\Programming\\JAVA\\MIFI\\dockerExample\\docker-compose.yml: `version` is obsolete"
2024/11/19 18:38:09 http2: server: error reading preface from client //./pipe/docker_engine: file has already been closed
[+] Building 0.0s (0/0)  docker:default
[+] Building 1.6s (8/8) FINISHED
 => [example internal] load build definition from Dockerfile
 => => transferring dockerfile: 512B
 => [example internal] load metadata for docker.io/library/openjdk:17-jdk-slim
 => [example internal] load .dockerignore
 => => transferring context: 2B
 => [example 1/3] FROM docker.io/library/openjdk:17-jdk-slim@sha256:aaa3b3cb27e3e520b8f116863d0580c438ed55ecfa0bc126b41f68c3f62f9774
 => [example internal] load build context
 => => transferring context: 78B
 => CACHED [example 2/3] WORKDIR /app
 => CACHED [example 3/3] COPY target/dockerExample-1.0.jar /app/dockerExample-1.0.jar
 => [example] exporting to image
 => => exporting layers
 => => writing image sha256:4529d570e53612cb235248ed86d8f36dc00e804f492b54955514fe9461288a62
 => => naming to docker.io/library/example
[+] Running 2/2
 ✓ Network example_default  Created
 ✓ Container front          Started
PS D:\Programming\JAVA\MIFI\dockerExample>
```

4. Команду запуска контейнера

```
docker start front
```

5. ID запущенного контейнера,

```
f578f198bd2a
```

6. Вывод списка всех запущенных контейнеров,


```
Terminal  Local × + ∨
[INFO] ------------------------------------------------------------
[INFO] BUILD SUCCESS
[INFO] ------------------------------------------------------------
[INFO] Total time:  2.056 s
[INFO] Finished at: 2024-11-19T18:40:12+05:00
[INFO] ------------------------------------------------------------
PS D:\Programming\JAVA\MIFI\dockerExample> docker ps
CONTAINER ID   IMAGE     COMMAND               CREATED         STATUS         PORTS                  NAMES
f578f198bd2a   example   "java -jar /app/dock…" 8 minutes ago   Up 8 minutes   0.0.0.0:80->80/tcp     front
PS D:\Programming\JAVA\MIFI\dockerExample>
```

7. Скриншот работающего приложения в браузере или в командной строке при запуске команды curl.

Удалил свои закладки.

Docker Example