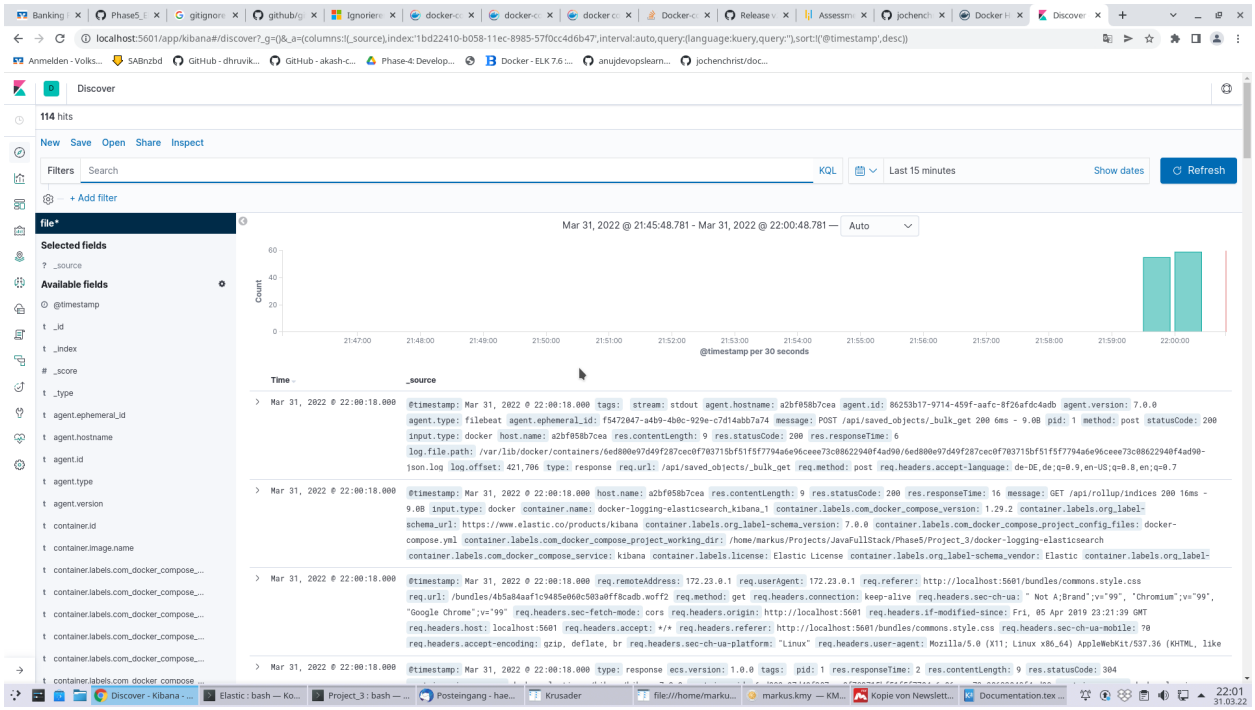
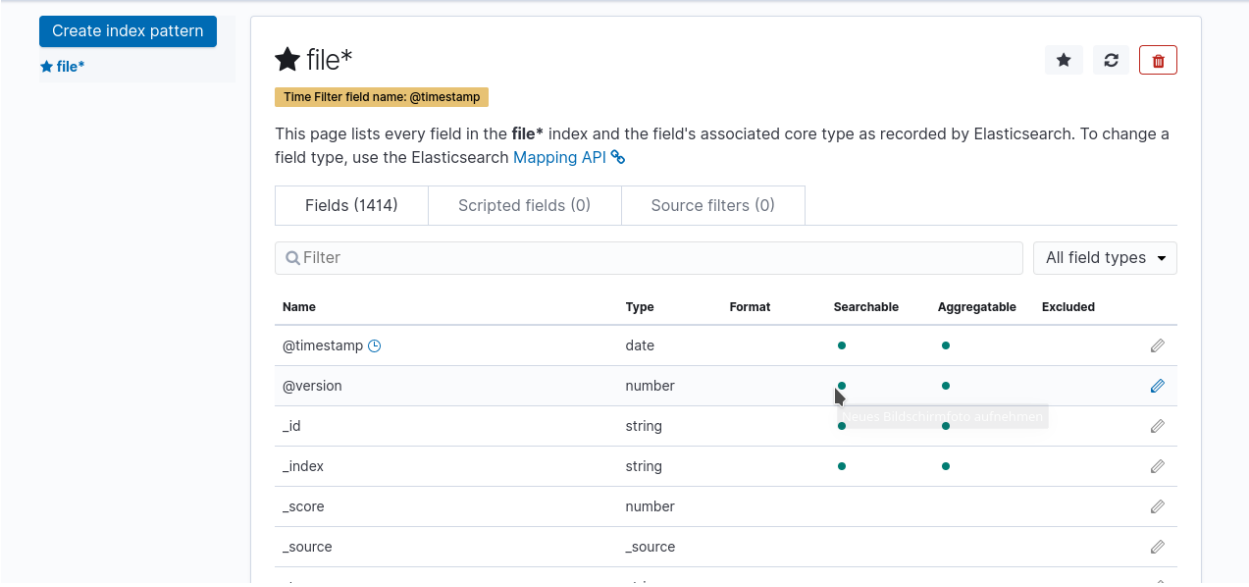
```
Branch 'master' folgt nun 'origin/master'.
(base) markus@Labor:~/Projects/JavaFullStack/Phase5/Project_3$ sudo docker ps
[sudo] Passwort für markus:
CONTAINER ID   IMAGE                                                  COMMAND                  CREATED        STATUS        PORTS
                  NAMES
6ed800e97d49   docker.elastic.co/kibana/kibana:7.0.0                  "/usr/local/bin/kiba…"   25 hours ago   Up 25 hours   0.0.0.0:5601->5601/tcp, :::5601->
5601/tcp          docker-logging-elasticsearch_kibana_1
a2bf058b7cea   docker-logging-elasticsearch_filebeat                  "/usr/local/bin/dock…"   25 hours ago   Up 25 hours
                  docker-logging-elasticsearch_filebeat_1
c41dddec5925   docker.elastic.co/elasticsearch/elasticsearch:7.0.0    "/usr/local/bin/dock…"   25 hours ago   Up 25 hours   0.0.0.0:9200->9200/tcp, :::9200->
9200/tcp, 9300/tcp   elasticsearch
e844538aa1c1   docker-logging-elasticsearch_demo                      "java -Djava.securit…"   25 hours ago   Up 25 hours   0.0.0.0:8080->8080/tcp, :::8080->
8080/tcp          docker-logging-elasticsearch_demo_1
(base) markus@Labor:~/Projects/JavaFullStack/Phase5/Project_3$
```




Markus Häge

# Continuous Monitoring on Docker with ELK Stack

Used Technologies:
Kibana
ElasticSearch
Filebeat
Docker
Repo: `https://github.com/mha77/Phase5_ElasticStack`




Docker Compose

```
version: '3.2'
services:
  demo:
    # run `./mvnw clean package` before
    build: ./demo
    ports:
      - 8080:8080
  filebeat:
    build: ./filebeat
    volumes:
      - /var/lib/docker/containers:/var/lib/docker/containers:ro
      - /var/run/docker.sock:/var/run/docker.sock
    networks:
      - es
    depends_on:
      - elasticsearch
  kibana:
    image: docker.elastic.co/kibana/kibana:7.0.0
    ports:
      - 5601:5601
    environment:
      ELASTICSEARCH_URL: http://elasticsearch:9200
    networks:
      - es
    depends_on:
      - elasticsearch
  elasticsearch:
    image: docker.elastic.co/elasticsearch/elasticsearch:7.0.0
    container_name: elasticsearch
    environment:
      - cluster.name=docker-cluster
      - "ES_JAVA_OPTS=-Xms512m -Xmx512m"
```

```
      - "network.host=0.0.0.0"
      - "discovery.zen.minimum_master_nodes=1"
      - "discovery.type=single-node"
    ulimits:
      memlock:
        soft: -1
        hard: -1
    volumes:
      - esdata:/usr/share/elasticsearch/data
    ports:
      - 9200:9200
    networks:
      - es

volumes:
  esdata:
    driver: local

networks:
  es:
```

FileBeat

```
FROM docker.elastic.co/beats/filebeat:7.0.0
COPY filebeat.yml /usr/share/filebeat/filebeat.yml
# must run as root to access /var/lib/docker and /var/run/docker.sock
USER root
RUN chown root /usr/share/filebeat/filebeat.yml
# dont run with -e, to disable output to stderr
CMD [""]

# filebeat.yml

filebeat.inputs:
- type: docker
  containers.ids: '*'
  json.message_key: message
  json.keys_under_root: true
  json.add_error_key: true
  json.overwrite_keys: true

processors:
- add_docker_metadata: ~

output.elasticsearch:
  hosts: ["elasticsearch:9200"]

logging.to_files: true
logging.to_syslog: false
```

DemoApplication

```
package com.example.demo;
```

```
import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;

@SpringBootApplication
@RestController
public class DemoApplication {

	private static final Logger logger = LoggerFactory.getLogger(DemoApp

	public static void main(String[] args) {
		SpringApplication.run(DemoApplication.class, args);
	}

	@GetMapping("/")
	public String hello() {
		logger.info("Hello World");
		logger.error("Ooops, there was an error", new RuntimeExceptio
		return "Hello World";
	}
}
```