

**Московский государственный технический университет  
им. Н. Э. Баумана**

**Факультет «Информатика и системы управления»**

**Кафедра ИУ5. Курс «Автоматизация разработки и эксплуатации ПО»**

**Отчет по рубежному контролю №2**

Выполнил:

Студентка группы ИУ5-71Б

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Проверил:

Дата: 29.12.2022

Подпись:

Дата:

Подпись:


Москва, 2022 г.



## Ход выполнения работы:

```
Registering runner... succeeded runner=n6NxzYS-
Enter an executor: custom, docker, docker-ssh, parallels, virtualbox, docker+machine, docker-ssh+machine, shell, ssh, instance, kubernetes:
shell
Runner registered successfully. Feel free to start it, but if it's running already the config should be automatically reloaded!
```

 .gitlab-ci.yml  55 Bytes

```
1 job:
2   tags:
3     - localhost
4   script:
5     - echo test
```

 passed


#71307  master  be3ceda9

localhost

#25915 by 


test

job

 00:00:02

 just now

```
✓ 15 Executing "step_script" stage of the job script 00:00
16 $ docker build -t lab8 app
17 Step 1/6 : FROM python:3.9
18 ----> 68cf04410baf
19 Step 2/6 : WORKDIR /app
20 ----> Using cache
21 ----> 620de6d589f8
22 Step 3/6 : COPY requirements.txt requirements.txt
23 ----> Using cache
24 ----> a5d6ad65b8c8
25 Step 4/6 : RUN pip3 install -r requirements.txt
26 ----> Using cache
27 ----> a618959ab983
28 Step 5/6 : COPY . .
29 ----> Using cache
30 ----> c82eb2da585f
31 Step 6/6 : CMD [ "python3", "-m" , "flask", "run", "--host=0.0.0.0"]
32 ----> Using cache
33 ----> 01b2355688e8
34 Successfully built 01b2355688e8
35 Successfully tagged lab8:latest
✓ 37 Cleaning up project directory and file based variables 00:00
39 Job succeeded
```

 .gitlab-ci.yml  404 Bytes

```
1 image: "python:3.9"
2
3 before_script:
4   - python --version
5   - pip install -r app/requirements.txt
6
7 stages:
8   - build
9   - upload
10  - deploy
11
12 build:
13   stage: build
14   script:
15     - docker build -t app:${CI_COMMIT_SHORT_SHA} app
16
17 upload:
18   stage: upload
19   script:
20     - kind load docker-image app:${CI_COMMIT_SHORT_SHA}
21
22 deploy:
23   stage: deploy
24   environment:
25     name: production
26   script:
27     - kubectl get pods
```

## Build

## Upload

## Deploy

 build upload deploy deployment.yml  343 Bytes

```
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: app-deployment
5    labels:
6      app: app
7  spec:
8    replicas: 3
9    selector:
10     matchLabels:
11       app: app
12    template:
13     metadata:
14       labels:
15         app: app
16     spec:
17       containers:
18         - name: app
19           image: app:$CI_COMMIT_SHORT_SHA
20           ports:
21             - containerPort: 80
```

 ingress.yml  328 Bytes

```
1  apiVersion: networking.k8s.io/v1
2  kind: Ingress
3  metadata:
4    name: minimal-ingress
5    annotations:
6      ingress.kubernetes.io/rewrite-target: /
7  spec:
8    rules:
9      - http:
10         paths:
11           - path: /
12             pathType: Prefix
13             backend:
14               service:
15                 name: app-service
16                 port:
17                   number: 80
```

service.yml 295 Bytes

```
1 apiVersion: v1
2 kind: Service
3 metadata:
4   name: app-service
5 spec:
6   selector:
7     app: app
8   ports:
9     - protocol: TCP
10     port: 80
11
12 ---
13
14 apiVersion: v1
15 kind: Service
16 metadata:
17   name: app-service-headless
18 spec:
19   clusterIP: None
20   selector:
21     app: app
22   ports:
23     - protocol: TCP
24     port: 80
```

.gitlab-ci.yml 698 Bytes

Edit Web IDE Replace Delete

```
1 image: "python:3.9"
2
3 before_script:
4   - python --version
5   - pip install -r app/requirements.txt
6
7 workflow:
8   rules:
9     - if: $CI_COMMIT_TAG
10     when: never
11     - if: $CI_COMMIT_BRANCH == 'master'
12
13 stages:
14   - build
15   - upload
16   - deploy
17
18 build:
19   stage: build
20   script:
21     - docker build -t app:$CI_COMMIT_SHORT_SHA app
22
23 upload:
24   stage: upload
25   script:
26     - kind load docker-image app:$CI_COMMIT_SHORT_SHA
27
28 deploy:
29   stage: deploy
30   environment:
31     name: production
32   script:
33     - kubectl create configmap myapp-conf --from-file=configs/conf --namespace=default -o yaml --dry-run=client | kubectl apply -f-
34     - kubectl set image deployment/app-deployment app=app:$CI_COMMIT_SHORT_SHA
```

NAME	READY	STATUS	RESTARTS	AGE
app-deployment-9dd5968d5-45bfr	1/1	Running	0	10s
app-deployment-9dd5968d5-jp2vs	1/1	Running	0	15s
app-deployment-9dd5968d5-tmw4w	1/1	Running	0	7s

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
app-service	ClusterIP	10.96.248.129	<none>	80/TCP	27m
app-service-headless	ClusterIP	None	<none>	80/TCP	27m