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ДИСЦИПЛИНА:
«Распределенные системы»

Отчет по практической работе №3

Тема:
«RabbitMQ. Docker»

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2022

УСТАНОВКА DOCKER

Проверка обновлений

```
lemp@u20-09:~$ sudo apt update
[sudo] password for lemp:
Sorry, try again.
[sudo] password for lemp:
Hit:1 http://deb.anydesk.com all InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://ppa.launchpad.net/serge-rider/dbeaver-ce/ubuntu focal InRelease
Hit:4 https://download.docker.com/linux/ubuntu focal InRelease
Get:5 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [1 744 kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/main Translation-en [292 kB]
Get:8 http://security.ubuntu.com/ubuntu focal-security/main amd64 DEP-11 Metadata [40,7 kB]
Get:9 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [1 207 kB]
Get:10 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en [171 kB]
Get:11 http://security.ubuntu.com/ubuntu focal-security/universe amd64 DEP-11 Metadata [77,6 kB]
Get:12 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 DEP-11 Metadata [2 464 B]
Hit:13 http://ru.archive.ubuntu.com/ubuntu focal InRelease
Get:14 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:15 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:16 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [2 118 kB]
Get:17 http://ru.archive.ubuntu.com/ubuntu focal-updates/main Translation-en [376 kB]
Get:18 http://ru.archive.ubuntu.com/ubuntu focal-updates/main amd64 DEP-11 Metadata [277 kB]
Get:19 http://ru.archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [1 297 kB]
Get:20 http://ru.archive.ubuntu.com/ubuntu focal-updates/restricted Translation-en [184 kB]
Get:21 http://ru.archive.ubuntu.com/ubuntu focal-updates/universe amd64 DEP-11 Metadata [391 kB]
Get:22 http://ru.archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 DEP-11 Metadata [944 B]
Get:23 http://ru.archive.ubuntu.com/ubuntu focal-backports/main amd64 DEP-11 Metadata [8 000 B]
Get:24 http://ru.archive.ubuntu.com/ubuntu focal-backports/universe amd64 DEP-11 Metadata [30,5 kB]
Fetched 8 554 kB in 31s (274 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
62 packages can be upgraded. Run 'apt list --upgradable' to see them.
lemp@u20-09:~$
```

Установка curl

```
lemp@u20-09:~$ sudo apt install apt-transport-https ca-certificates curl software-properties-common
Reading package lists... Done
Building dependency tree
Reading state information... Done
ca-certificates is already the newest version (20211016~20.04.1).
curl is already the newest version (7.68.0-1ubuntu2.13).
software-properties-common is already the newest version (0.99.9.8).
apt-transport-https is already the newest version (2.0.9).
The following packages were automatically installed and are no longer required:
  chromium-codecs-ffmpeg-extra gstreamer1.0-vaapi libfwupdplugin1 libgstreamer-plugins-bad1.0-0
  libva-wayland2
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 61 not upgraded.
lemp@u20-09:~$
```

Добавляем каталог, в который в последующем скачаем докер

```
lemp@u20-09:~$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
[sudo] password for lemp:
lemp@u20-09:~$ sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu focal
stable"
Hit:1 http://deb.anydesk.com all InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:3 http://ppa.launchpad.net/serge-rider/dbeaver-ce/ubuntu focal InRelease
Get:4 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Hit:5 https://download.docker.com/linux/ubuntu focal InRelease
Hit:6 http://ru.archive.ubuntu.com/ubuntu focal InRelease
Hit:7 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:8 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease
Fetched 114 kB in 3s (35,1 kB/s)
Reading package lists... Done
lemp@u20-09:~$
```


Индексация

```
lemp@u20-09:~$ sudo apt update
Hit:1 http://ru.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://ru.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://ru.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://deb.anydesk.com all InRelease
Hit:5 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:6 http://ppa.launchpad.net/serge-rider/dbeaver-ce/ubuntu focal InRelease
Hit:7 https://download.docker.com/linux/ubuntu focal InRelease
Get:8 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Fetched 114 kB in 1s (99,2 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
61 packages can be upgraded. Run 'apt list --upgradable' to see them.
lemp@u20-09:~$
```

Добавляем специальный компонент докера в систему

```
lemp@u20-09:~$ apt-cache policy docker-ce
docker-ce:
  Installed: 5:20.10.16~3-0~ubuntu-focal
  Candidate: 5:20.10.18~3-0~ubuntu-focal
  Version table:
   5:20.10.18~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.17~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
  *** 5:20.10.16~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
     100 /var/lib/dpkg/status
   5:20.10.15~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.14~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.13~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.12~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.11~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.10~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.9~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.8~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.7~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.6~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
   5:20.10.5~3-0~ubuntu-focal 500
     500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
```

```

500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.8~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.7~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.6~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.5~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.4~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.3~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.2~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.1~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:20.10.0~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:19.03.15~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:19.03.14~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:19.03.13~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:19.03.12~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:19.03.11~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:19.03.10~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
5:19.03.9~3-0~ubuntu-focal 500
500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
lemp@u20-09:~$

```

Устанавливаем стабильную версию докера

```

lemp@u20-09:~$ sudo apt install docker-ce
[sudo] password for lemp:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  chromium-codecs-ffmpeg-extra gstreamer1.0-vaapi libfwupplugin1 libgstreamer-plugins-bad1.0-0
  libva-wayland2
Use 'sudo apt autoremove' to remove them.
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite
The following packages will be upgraded:
  docker-ce
1 upgraded, 0 newly installed, 0 to remove and 60 not upgraded.
Need to get 20,4 MB of archives.
After this operation, 12,3 MB disk space will be freed.
Get:1 https://download.docker.com/linux/ubuntu focal/stable amd64 docker-ce amd64 5:20.10.18~3-0~ubuntu-focal [20,4 MB]
Fetched 20,4 MB in 2s (9 002 kB/s)
(Reading database ... 185852 files and directories currently installed.)
Preparing to unpack .../docker-ce_5%3a20.10.18~3-0~ubuntu-focal_amd64.deb ...
Unpacking docker-ce (5:20.10.18~3-0~ubuntu-focal) over (5:20.10.16~3-0~ubuntu-focal) ...
Setting up docker-ce (5:20.10.18~3-0~ubuntu-focal) ...
Processing triggers for systemd (245.4-4ubuntu3.17) ...
lemp@u20-09:~$

```


Проверка работоспособности докера

```
lemp@u20-09:~$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
   Active: active (running) since Tue 2022-09-27 09:26:45 MSK; 42s ago
     TriggeredBy: ● docker.socket
        Docs: https://docs.docker.com
       Main PID: 144714 (dockerd)
         Tasks: 7
        Memory: 26.9M
         CGroup: /system.slice/docker.service
                 └─144714 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.352910671+03:00" level=warning msg=>
сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.353254077+03:00" level=warning msg=>
сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.353386979+03:00" level=warning msg=>
сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.353634983+03:00" level=info msg="Lo>
сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.536430693+03:00" level=info msg="De>
сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.580659345+03:00" level=info msg="Lo>
сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.608994428+03:00" level=info msg="Do>
сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.609298833+03:00" level=info msg="Da>
сен 27 09:26:45 u20-09 systemd[1]: Started Docker Application Container Engine.
сен 27 09:26:45 u20-09 dockerd[144714]: time="2022-09-27T09:26:45.654130595+03:00" level=info msg="AP>
lines 1-21/21 (END)
```

Скачать композер

```
lemp@u20-09:~$ sudo curl -L "https://github.com/docker/compose/releases/download/1.25.0/docker-compose"
-$ (uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose
[sudo] password for lemp:
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
  0     0    0     0    0     0      0      0  --:--:-- --:--:-- --:--:--     0
100 16.2M 100 16.2M    0     0 20.1M      0  --:--:-- --:--:-- --:--:-- 31.0M
lemp@u20-09:~$
```

Даем полный доступ на использование сервиса

```
lemp@u20-09:~$ sudo chmod +x /usr/local/bin/docker-compose
```

Проверка версии

```
lemp@u20-09:~$ docker-compose --version
docker-compose version 1.25.0, build 0a186604
```

Проверка yaml файлов

```
lemp@u20-09:~$ docker-compose ps
ERROR:
       Can't find a suitable configuration file in this directory or any
       parent. Are you in the right directory?

       Supported filenames: docker-compose.yml, docker-compose.yaml
```

ВАРИАНТ ЗАПУСКА RABBITMQ В DOCKER КОНТЕЙНЕРЕ

Скачивание официального образа RabbitMQ

```
lemp@u20-09:~$ sudo docker pull rabbitmq:3.6.14-management
[sudo] password for lemp:
3.6.14-management: Pulling from library/rabbitmq
e7bb522d92ff: Pull complete
ad90649c4d84: Pull complete
5a318b914d6c: Pull complete
cedd60f70052: Pull complete
f754361b064d: Pull complete
9024d880d342: Pull complete
b3d775050fc8: Pull complete
6e9f52fff670: Pull complete
2af9c86e1071: Pull complete
80eef1b61d37: Pull complete
82f0271a3b5e: Pull complete
c6f959a3f62b: Pull complete
a289a4ffa099: Pull complete
Digest: sha256:8f4d1feacc3f160a8e426dd33c57b7147c8e863d6283e917e3ce5f790830cca3
Status: Downloaded newer image for rabbitmq:3.6.14-management
docker.io/library/rabbitmq:3.6.14-management
lemp@u20-09:~$
```

Создание виртуального места на диске для хранения логов

```
lemp@u20-09:~$ sudo docker volume create rabbitmq_data
rabbitmq_data
```

Запуск контейнера

Результат – хэш сумма

```
lemp@u20-09:~$ sudo docker run -d --hostname rabbitmq --log-driver=journald --name rabbitmq -p 5672:5672 -p 15672:15672 -p 15674:15674 -p 25672:25672 -p 61613:61613 -v rabbitmq_data:/var/lib/rabbitmq rabbitmq:3.6.14-management
57e860928e40ab1c8bfc6f31a11b10c8fe1f7f6fd6ffd42fdd18535b18964deb
lemp@u20-09:~$
```

Определение присвоенного ip адреса

```
lemp@u20-09:~$ sudo docker container inspect rabbitmq
[
  {
    "Id": "57e860928e40ab1c8bfc6f31a11b10c8fe1f7f6fd6ffd42fdd18535b18964deb",
    "Created": "2022-09-27T06:47:33.293335334Z",
    "Path": "docker-entrypoint.sh",
    "Args": [
      "rabbitmq-server"
    ],
    "State": {
      "Status": "running",
      "Running": true,
      "Paused": false,
      "Restarting": false,
      "OOMKilled": false,
      "Dead": false,
      "Pid": 145597,
      "ExitCode": 0,
      "Error": "",
      "StartedAt": "2022-09-27T06:47:34.067201713Z",
      "FinishedAt": "0001-01-01T00:00:00Z"
    },
    "Image": "sha256:42b283da44d0b52785e7f114e5252f6f9fbcc0f0ca580461e6c7125af9ab3e94",
    "ResolvConfPath": "/var/lib/docker/containers/57e860928e40ab1c8bfc6f31a11b10c8fe1f7f6fd6ffd42fdd18535b18964deb/resolv.conf",
    "HostnamePath": "/var/lib/docker/containers/57e860928e40ab1c8bfc6f31a11b10c8fe1f7f6fd6ffd42fdd18535b18964deb/hostname",
    "HostsPath": "/var/lib/docker/containers/57e860928e40ab1c8bfc6f31a11b10c8fe1f7f6fd6ffd42fdd18535b18964deb/hosts",
    "LogPath": "",
    "Name": "/rabbitmq"
  }
]
```

```
"IPAddress": "172.17.0.2",
```



RabbitMQ Management
+

Not secure | 172.17.0.2:15672/#/

Refreshed 2022-09-27 09:54:40
Refresh every 5 seconds

Virtual host: All
Cluster: rabbit@rabbitmq
User: guest
Log out

Overview
Connections
Channels
Exchanges
Queues

Admin

Overview

Totals

Queued messages: last minute
Currently idle
Message rates: last minute
Currently idle
Global counts

Connections: 0
Channels: 0
Exchanges: 8
Queues: 0
Consumers: 0

Nodes

Name	File descriptors ?	Socket descriptors ?	Erlang processes	Memory	Disk space	Uptime	Info
rabbit@rabbitmq	24 1048576 available	0 943626 available	320 1048576 available	77MB 3.0GB high watermark	48GB 48MB low watermark	6m 55s	basic disc 1

Ports and contexts
Export definitions
Import definitions

HTTP API
Server Docs
Tutorials
Community Support
Community Slack
Commercial Support
Plugins
GitHub
Changelog

Проверка запущенных контейнеров

```

lemp@u20-09:~$ sudo docker ps -a
[sudo] password for lemp:
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS
PORTS
NAMES
57e860928e40   rabbitmq:3.6.14-management         "docker-entrypoint.s..." 16 minutes ago Up 16 minutes
4369/tcp, 5671/tcp, 0.0.0.0:5672->5672/tcp, :::5672->5672/tcp, 0.0.0.0:15672->15672/tcp, :::15672-
tcp, 0.0.0.0:15674->15674/tcp, :::15674->15674/tcp, 0.0.0.0:25672->25672/tcp, :::25672->25672/tcp, 1567
0.0.0.0:61613->61613/tcp, :::61613->61613/tcp rabbitmq
5a9cbc1b4b8f   bitnami/cassandra:4.0              "/opt/bitnami/script..." 5 months ago   Exited (255) 4 m
go 0.0.0.0:7000->7000/tcp, :::7000->7000/tcp, 0.0.0.0:9042->9042/tcp, :::9042->9042/tcp
7b89ab880778   phpmyadmin/phpmyadmin:5.0.0        "/docker-entrypoint.s..." 7 months ago   Exited (0) 7 mon
4c8b07626b08   mysql:latest                       "docker-entrypoint.s..." 7 months ago   Exited (0) 7 mon
c142308fc761   phpmyadmin/phpmyadmin:5.0.0        "/docker-entrypoint.s..." 7 months ago   Exited (0) 7 mon
1aec8dd4c7ff   mysql:latest                       "docker-entrypoint.s..." 7 months ago   Exited (0) 7 mon
mysql

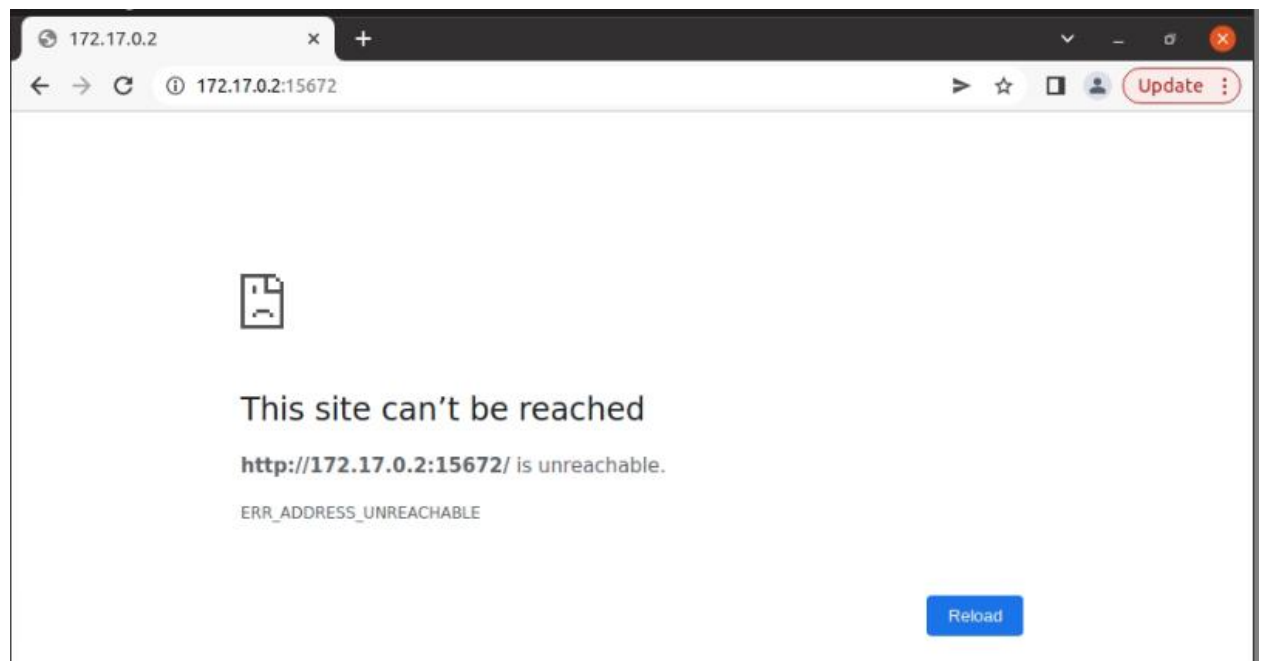
```


Остановка и удаление контейнеров

```
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS
57e860928e40   rabbitmq:3.6.14-management         "docker-entrypoint.s..." 16 minutes ago Up 16 minutes 4369/tcp, 5671/tcp, 0.0.0.0:5672->5672/tcp, :::5672->5672/tcp, 0.0.0.0:15672->15672/tcp, :::15672->15672/tcp, 0.0.0.0:15674->15674/tcp, :::15674->15674/tcp, 0.0.0.0:25672->25672/tcp, :::25672->25672/tcp, 15671/tcp, 0.0.0.0:61613->61613/tcp, :::61613->61613/tcp rabbitmq
5a9cbc1b4b8f   bitnami/cassandra:4.0              "/opt/bitnami/script..." 5 months ago   Exited (255) 4 months ago 0.0.0.0:7000->7000/tcp, :::7000->7000/tcp, 0.0.0.0:9042->9042/tcp, :::9042->9042/tcp
7b89ab880778   phpmyadmin/phpmyadmin:5.0.0        "/docker-entrypoint..." 7 months ago   Exited (0) 7 months ago
4c8b07626b08   mysql:latest                       "docker-entrypoint.s..." 7 months ago   Exited (0) 7 months ago
c142308fc761   phpmyadmin/phpmyadmin:5.0.0        "/docker-entrypoint..." 7 months ago   Exited (0) 7 months ago
1aec8dd4c7ff   mysql:latest                       "docker-entrypoint.s..." 7 months ago   Exited (0) 7 months ago

lemp@u20-09:~$ sudo docker stop^C
lemp@u20-09:~$ sudo docker stop 7b89ab880778
7b89ab880778
lemp@u20-09:~$ sudo docker rm 7b89ab880778
7b89ab880778
lemp@u20-09:~$ sudo docker stop 4c8b07626b08
4c8b07626b08
lemp@u20-09:~$ sudo docker rm 4c8b07626b08
4c8b07626b08
lemp@u20-09:~$ sudo docker stop c142308fc761
c142308fc761
lemp@u20-09:~$ sudo docker rm c142308fc761
c142308fc761
lemp@u20-09:~$ sudo docker stop 1aec8dd4c7ff
1aec8dd4c7ff
lemp@u20-09:~$ sudo docker rm 1aec8dd4c7ff
1aec8dd4c7ff
lemp@u20-09:~$ sudo docker ps -a
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS
57e860928e40   rabbitmq:3.6.14-management         "docker-entrypoint.s..." 23 minutes ago Up 23 minutes 4369/tcp, 5671/tcp, 0.0.0.0:5672->5672/tcp, :::5672->5672/tcp, 0.0.0.0:15672->15672/tcp, :::15672->15672/tcp, 0.0.0.0:15674->15674/tcp, :::15674->15674/tcp, 0.0.0.0:25672->25672/tcp, :::25672->25672/tcp, 15671/tcp, 0.0.0.0:61613->61613/tcp, :::61613->61613/tcp rabbitmq
```

```
lemp@u20-09:~$ sudo docker stop 57e860928e40
57e860928e40
lemp@u20-09:~$ sudo docker rm 57e860928e40
57e860928e40
lemp@u20-09:~$
```



ВАРИАНТ ЗАПУСКА RABBITMQ С ПОМОЩЬЮ DOCKER

Создадим файл run.sh и определим ему права на доступ

```
lemp@u20-09: ~  
lemp@u20-09:~$ touch run.sh  
lemp@u20-09:~$ sudo chmod +x run.sh
```

Запись скрипта для поднятия брокера в докере

```
GNU nano 4.8 run.sh Modified  
docker run -d \  
--hostname rabbitmq \  
--log-driver=journald \  
--name rabbitmq \  
-p 5672:5672 \  
-p 15672:15672 \  
-p 15674:15674 \  
-p 25672:25672 \  
-p 61613:61613 \  
-v rabbitmq_data:/var/lib/rabbitmq \  
rabbitmq:3.6.14-management
```

Запуск скрипта

```
lemp@u20-09:~$ sudo sh run.sh  
22b781a4e6b0575396ec34f4a720bf722cb64202f881632a4678162e1159a2df  
lemp@u20-09:~$ sudo docker volume create rabbitmq_data  
rabbitmq_data  
lemp@u20-09:~$
```


Проверка наличия контейнера

```
lemp@u20-09:~$ sudo docker ps -a  
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS  
PORTS  
NAMES  
22b781a4e6b0   rabbitmq:3.6.14-management         "docker-entrypoint.s..." About a minute ago Up About a min  
ute           4369/tcp, 5671/tcp, 0.0.0.0:5672->5672/tcp, :::5672->5672/tcp, 0.0.0.0:15672->15672/tcp, :  
::15672->15672/tcp, 0.0.0.0:15674->15674/tcp, :::15674->15674/tcp, 0.0.0.0:25672->25672/tcp, :::  
25672->25672/tcp, 15671/tcp, 0.0.0.0:61613->61613/tcp, :::61613->61613/tcp rabbitmq
```

RabbitMQ Management

Not secure | 172.17.0.2:15672/#/

Update

3.6.14Erlang 19.2.1

Refreshed 2022-10-02 21:46:49Refresh every 5 seconds

Virtual hostAllCluster rabbit@rabbitmqUser guestLog out

OverviewConnectionsChannelsExchangesQueuesAdmin

Overview

Totals

Queued messageslast hour?

Currently idle

Message rateslast hour?

Currently idle

Global counts?

Connections: 0Channels: 0Exchanges: 8Queues: 0Consumers: 0

Nodes

Name	File descriptors?	Socket descriptors?	Erlang processes	Memory	Disk space	Uptime	Info	Reset stats	+/-
rabbit@rabbitmq	28 1048576 available	0 943626 available	322 1048576 available	75MB 3.0GB high watermark	48GB 48MB low watermark	6m 35s	basic disc 1	This node All nodes	

Ports and contexts

Export definitions

Import definitions

HTTP API

Server Docs

Tutorials

Community Support

Community Slack

Commercial Support

Plugins

GitHub

Changelog

ПРИМЕР HELLO-WORLD

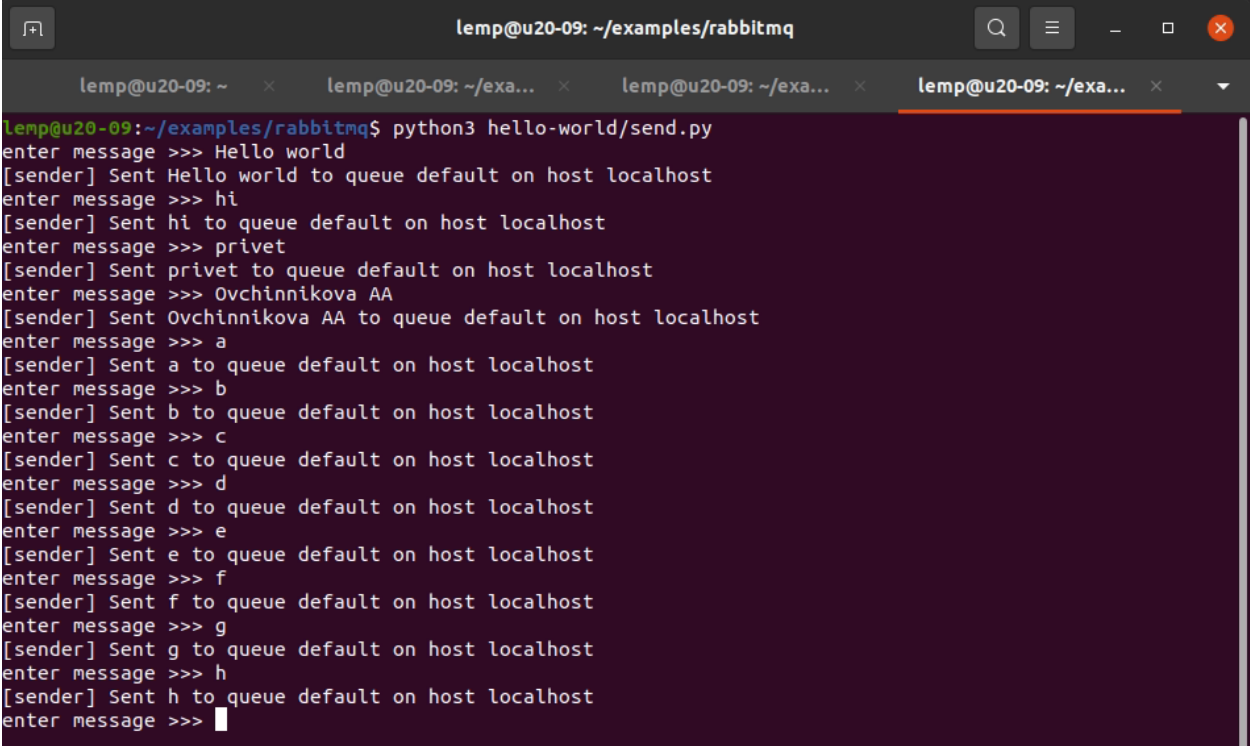
Установка pika – библиотеки Python для RabbitMQ

```
lemp@u20-09:~/examples$ pip3 install pika
Collecting pika
  Downloading pika-1.3.0-py3-none-any.whl (155 kB)
    |████████████████████| 155 kB 698 kB/s
Installing collected packages: pika
Successfully installed pika-1.3.0
```

Запуск receive

```
lemp@u20-09:~/examples/rabbitmq$ python3 hello-world/recieve.py
started simple reciever
[producer] Waiting for messages.
```

Запуск send и отправка сообщений



The screenshot shows a terminal window titled "lemp@u20-09: ~/examples/rabbitmq". The terminal displays the execution of a Python script "python3 hello-world/send.py". The script prompts the user to "enter message" and then sends the message to a queue named "default" on the host "localhost". The messages sent are: "Hello world", "hi", "privet", "Ovchinnikova AA", "a", "b", "c", "d", "e", "f", "g", and "h".

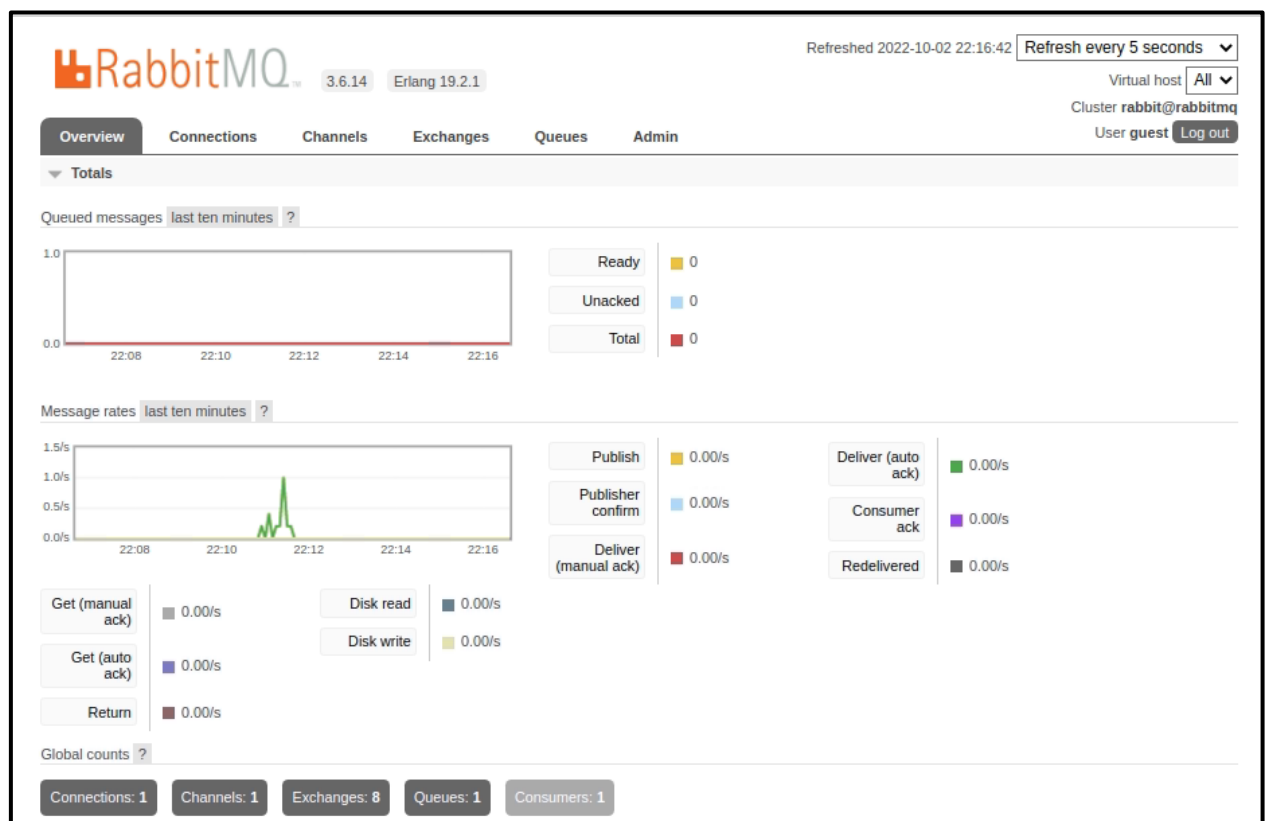
```
lemp@u20-09:~/examples/rabbitmq$ python3 hello-world/send.py
enter message >>> Hello world
[sender] Sent Hello world to queue default on host localhost
enter message >>> hi
[sender] Sent hi to queue default on host localhost
enter message >>> privet
[sender] Sent privet to queue default on host localhost
enter message >>> Ovchinnikova AA
[sender] Sent Ovchinnikova AA to queue default on host localhost
enter message >>> a
[sender] Sent a to queue default on host localhost
enter message >>> b
[sender] Sent b to queue default on host localhost
enter message >>> c
[sender] Sent c to queue default on host localhost
enter message >>> d
[sender] Sent d to queue default on host localhost
enter message >>> e
[sender] Sent e to queue default on host localhost
enter message >>> f
[sender] Sent f to queue default on host localhost
enter message >>> g
[sender] Sent g to queue default on host localhost
enter message >>> h
[sender] Sent h to queue default on host localhost
enter message >>> 
```

Сообщения получены

```
lemp@u20-09: ~/examples/rabbitmq

[producer] Waiting for messages.

[reciever] Received Hello world from channel <BlockingChannel impl=<Channel number=1 OPEN conn=<SelectCo
nnection OPEN transport=<pika.adapters.utils.io_services_utils._AsyncPlaintextTransport object at 0x7f62
b4450f40> params=<ConnectionParameters host=localhost port=5672 virtual_host=/ ssl=False>>>>, method <Ba
sic.Deliver(['consumer_tag=ctag1.60c04753ce58436cb0d36d2408f770f9', 'delivery_tag=1', 'exchange=', 'rede
livered=False', 'routing_key=default'])>
[reciever] Received hi from channel <BlockingChannel impl=<Channel number=1 OPEN conn=<SelectConnection
OPEN transport=<pika.adapters.utils.io_services_utils._AsyncPlaintextTransport object at 0x7f62b4450f40>
params=<ConnectionParameters host=localhost port=5672 virtual_host=/ ssl=False>>>>, method <Basic.Deliv
er(['consumer_tag=ctag1.60c04753ce58436cb0d36d2408f770f9', 'delivery_tag=2', 'exchange=', 'redelivered=F
alse', 'routing_key=default'])>
[reciever] Received privet from channel <BlockingChannel impl=<Channel number=1 OPEN conn=<SelectConnect
ion OPEN transport=<pika.adapters.utils.io_services_utils._AsyncPlaintextTransport object at 0x7f62b4450
f40> params=<ConnectionParameters host=localhost port=5672 virtual_host=/ ssl=False>>>>, method <Basic.D
eliver(['consumer_tag=ctag1.60c04753ce58436cb0d36d2408f770f9', 'delivery_tag=3', 'exchange=', 'redeliver
ed=False', 'routing_key=default'])>
[reciever] Received Ovchinnikova AA from channel <BlockingChannel impl=<Channel number=1 OPEN conn=<Sele
ctConnection OPEN transport=<pika.adapters.utils.io_services_utils._AsyncPlaintextTransport object at 0x
7f62b4450f40> params=<ConnectionParameters host=localhost port=5672 virtual_host=/ ssl=False>>>>, method
<Basic.Deliver(['consumer_tag=ctag1.60c04753ce58436cb0d36d2408f770f9', 'delivery_tag=4', 'exchange=', '
redelivered=False', 'routing_key=default'])>
[reciever] Received a from channel <BlockingChannel impl=<Channel number=1 OPEN conn=<SelectConnection O
PEN transport=<pika.adapters.utils.io_services_utils._AsyncPlaintextTransport object at 0x7f62b4450f40>
params=<ConnectionParameters host=localhost port=5672 virtual_host=/ ssl=False>>>>, method <Basic.Delive
r(['consumer_tag=ctag1.60c04753ce58436cb0d36d2408f770f9', 'delivery_tag=5', 'exchange=', 'redelivered=Fa
lse', 'routing_key=default'])>
[reciever] Received b from channel <BlockingChannel impl=<Channel number=1 OPEN conn=<SelectConnection O
PEN transport=<pika.adapters.utils.io_services_utils._AsyncPlaintextTransport object at 0x7f62b4450f40>
params=<ConnectionParameters host=localhost port=5672 virtual_host=/ ssl=False>>>>, method <Basic.Delive
r(['consumer_tag=ctag1.60c04753ce58436cb0d36d2408f770f9', 'delivery_tag=6', 'exchange=', 'redelivered=Fa
lse', 'routing_key=default'])>
[reciever] Received c from channel <BlockingChannel impl=<Channel number=1 OPEN conn=<SelectConnection O
```



ПРИМЕР TASK-QUEUE

Запуск worker.

```
lemp@u20-09:~/examples/rabbitmq$ python3 task-queue/worker.py
started simple worker
[worker] Waiting for messages.
```

Запуск dispatcher.

```
lemp@u20-09:~/examples/rabbitmq$ python3 task-queue/dispatcher.py
enter message >>> Hello
[sender] Sent Hello to queue default on host localhost
enter message >>> privet
[sender] Sent privet to queue default on host localhost
enter message >>> a
[sender] Sent a to queue default on host localhost
enter message >>> b
[sender] Sent b to queue default on host localhost
enter message >>> c
[sender] Sent c to queue default on host localhost
enter message >>> d
[sender] Sent d to queue default on host localhost
enter message >>> e
[sender] Sent e to queue default on host localhost
enter message >>> f
[sender] Sent f to queue default on host localhost
enter message >>> g
[sender] Sent g to queue default on host localhost
enter message >>> h
[sender] Sent h to queue default on host localhost
enter message >>> i
[sender] Sent i to queue default on host localhost
enter message >>> █
```

Сообщения получены

```
lemp@u20-09:~/examples/rabbitmq$ python3 task-queue/worker.py
started simple worker
[worker] Waiting for messages.
[worker] Received command '['privet']' from channel default, method <class 'pika.spec.Basic.Deliver'>
[worker] Executing command
[worker] Received command '['b']' from channel default, method <class 'pika.spec.Basic.Deliver'>
[worker] Executing command
[worker] Received command '['d']' from channel default, method <class 'pika.spec.Basic.Deliver'>
[worker] Executing command
[worker] Received command '['f']' from channel default, method <class 'pika.spec.Basic.Deliver'>
[worker] Executing command
[worker] Received command '['h']' from channel default, method <class 'pika.spec.Basic.Deliver'>
[worker] Executing command
[worker] Received command '['k']' from channel default, method <class 'pika.spec.Basic.Deliver'>
[worker] Executing command
█
```


Overview

Totals

Queued messages last ten minutes ?



Ready	0
Unacked	0
Total	0

Message rates last ten minutes ?



Publish	0.00/s
Publisher confirm	0.00/s
Deliver (manual ack)	0.00/s

Deliver (auto ack)	0.00/s
Consumer ack	0.00/s
Redelivered	0.00/s

Get (manual ack)	0.00/s
Get (auto ack)	0.00/s
Disk read	0.00/s
Disk write	0.00/s

Click to toggle line

Global counts ?

Connections: 2 Channels: 2 Exchanges: 8 Queues: 1 Consumers: 2