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ДИСЦИПЛИНА: «Распределенные системы»

**Отчет по семинарскому занятию 4**

**Тема:**  
**«ZeroMQ»**

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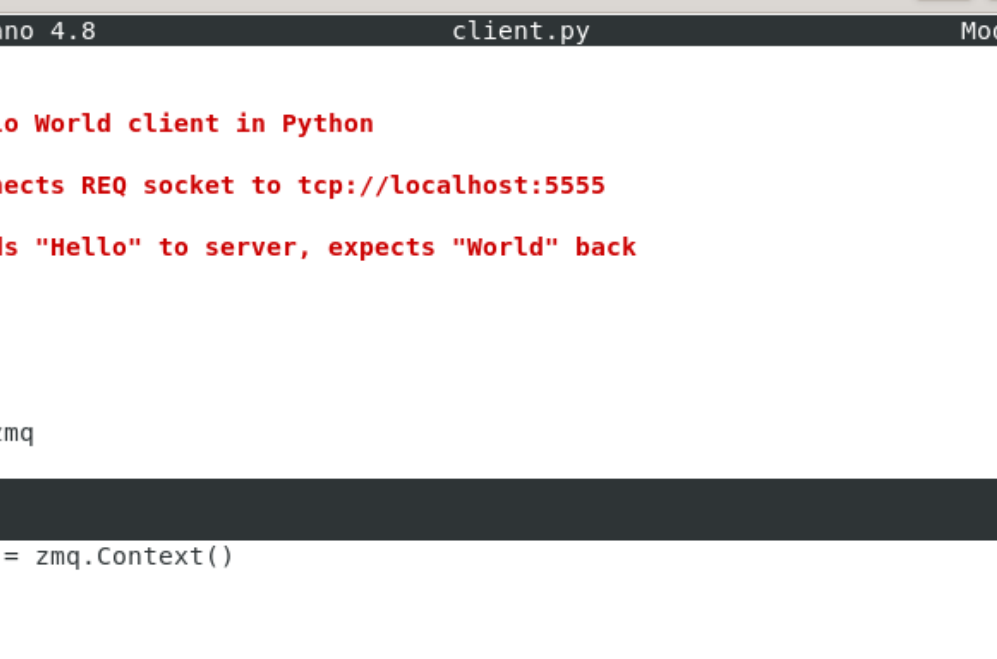
```
lemp@u20-03: ~  
lemp@u20-03:~$ sudo apt install python3-pip  
[sudo] password for lemp:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
python3-pip is already the newest version (20.0.2-5ubuntu1.6).  
The following packages were automatically installed 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 64 not upgraded.  
lemp@u20-03:~$
```

```
lemp@u20-03:~$ pip3 install pyzmq
Collecting pyzmq
  Downloading pyzmq-24.0.1-cp38-cp38-manylinux_2_12_x86_64.manylinux2010_x86_64.whl (1.1 MB)
    |████████████████████████████████████████| 1.1 MB 1.4 MB/s
Installing collected packages: pyzmq
Successfully installed pyzmq-24.0.1
```



A terminal window titled "lemp@u20-03: ~" with a search icon, a menu icon, and a close icon. The terminal shows the following commands and output:


```
lemp@u20-03:~$ touch client.py
lemp@u20-03:~$ nano client.py
```



```
lemp@u20-03: ~
GNU nano 4.8 client.py Modified
#
# Hello World client in Python
#
# Connects REQ socket to tcp://localhost:5555
#
# Sends "Hello" to server, expects "World" back
#


import zmq

context = zmq.Context()
```



A terminal window titled 'lemp@u20-03: ~' with standard window controls (minimize, maximize, close). The terminal shows the following commands and output:

```
lemp@u20-03:~$ touch client.py
lemp@u20-03:~$ nano client.py
lemp@u20-03:~$ touch server.py
lemp@u20-03:~$ nano server.py
```



```
lemp@u20-03: ~
GNU nano 4.8 server.py Modified
import time

import zmq

context = zmq.Context()

socket = context.socket(zmq.REP)

socket.bind("tcp://*:5555")

while True:

    # Wait for next request from client

    message = socket.recv()
```

```
lemp@u20-03:~$ python3 client.py
Connecting to hello world server...
Sending request 0 ...
```

[illegible]