

Департамент образования и науки города Москвы
Государственное автономное образовательное учреждение
высшего образования города Москвы
«Московский городской педагогический университет»
Институт цифрового образования
Департамент информатики, управления и технологий

Практическая работа № 2

Тема: «Multicast»

Выполнила: Бринькован В. А., ТП-191

Руководитель: Босенко Т.М.

Москва

2022

Результат запуска ресивера и сендера:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
lemp001@U20-001:~/Downloads/Distributed_systems-main$ python3 socket_multicast_receiver.py
waiting to receive message
received 19 bytes from ('172.26.35.133', 43111)
b'very important data'
sending acknowledgement to ('172.26.35.133', 43111)

waiting to receive message
received 19 bytes from ('172.26.35.128', 40081)
b'very important data'
sending acknowledgement to ('172.26.35.128', 40081)

waiting to receive message
received 19 bytes from ('172.26.35.29', 58567)
b'very important data'
sending acknowledgement to ('172.26.35.29', 58567)

waiting to receive message
received 19 bytes from ('172.26.35.20', 49823)
b'very important data'
sending acknowledgement to ('172.26.35.20', 49823)

ds/Don3 socket_multicast_sender.py
lemp001@U20-001:~/Downloads/Don3 socket_multicast_sender.py
lemp001@U20-001:~/Downloads/Don3 socket_multicast_sender.py
lemp001@U20-001:~/Downloads/Don3 socket_multicast_sender.py
lemp001@U20-001:~/Downloads/Distributed_systems-main$ python3 socket_multicast_sender.py
sending b'very important data'
waiting to receive
received b'ack' from ('172.26.35.121', 10000)
waiting to receive
received b'ack' from ('172.26.35.31', 10000)
waiting to receive
received b'ack' from ('172.26.35.20', 10000)
waiting to receive
received b'ack' from ('172.26.35.128', 10000)
waiting to receive
received b'ack' from ('172.26.35.123', 10000)
waiting to receive
received b'ack' from ('172.26.35.127', 10000)
waiting to receive
received b'ack' from ('172.26.35.25', 10000)
waiting to receive
received b'ack' from ('172.26.35.122', 10000)
waiting to receive
received b'ack' from ('172.26.35.29', 10000)
waiting to receive
received b'ack' from ('172.26.35.30', 10000)
waiting to receive
```

Результат замены дефолтного сообщения на «Privet»:

```
File Edit Selection View Go Run Terminal Help
EXPLORER
DISTRIBUTED_SYSTEMS-MAIN
  d-zadanie
    02-sockets
    03-mq
    04-multicast
    06-failure_detection
    dz.md
    Lectures
    practice
Visual Studio Code
socket_multicast_receiver.py
socket_multicast_sender.py
Копия_блокнота_Программи...
ТЕСТИРОВАНИЕ.md
socket_multicast_sender.py
1 import socket
2 import struct
3 import sys
4
5 message = b'Privet'
6 multicast_group = ('224.3.29.71', 10000)
7
8 # Create the datagram socket
9 sock = socket.socket(socket.AF_INET, socket.SOCK_DGRAM)
10
11 # Set a timeout so the socket does not block
12 # indefinitely when trying to receive data.
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
python3
b'very important data'
sending acknowledgement to ('172.26.35.123', 40551)

waiting to receive message
received 6 bytes from ('172.26.35.121', 50752)
b'Privet'
sending acknowledgement to ('172.26.35.121', 50752)

waiting to receive message
received 11 bytes from ('172.26.35.123', 54609)
b'Raz dva tri'
sending acknowledgement to ('172.26.35.123', 54609)

waiting to receive message
received 19 bytes from ('172.26.35.123', 54609)
b'Privet'
sending acknowledgement to ('172.26.35.123', 54609)

waiting to receive
received b'ack' from ('172.26.35.25', 10000)
waiting to receive
received b'ack' from ('172.26.35.20', 10000)
waiting to receive
received b'ack' from ('172.26.35.127', 10000)
waiting to receive
received b'ack' from ('172.26.35.128', 10000)
waiting to receive
received b'ack' from ('172.26.35.122', 10000)
waiting to receive
received b'ack' from ('172.26.35.122', 10000)
waiting to receive
timed out, no more responses
closing socket
lemp001@U20-001:~/Downloads/Distributed_systems-main$
```