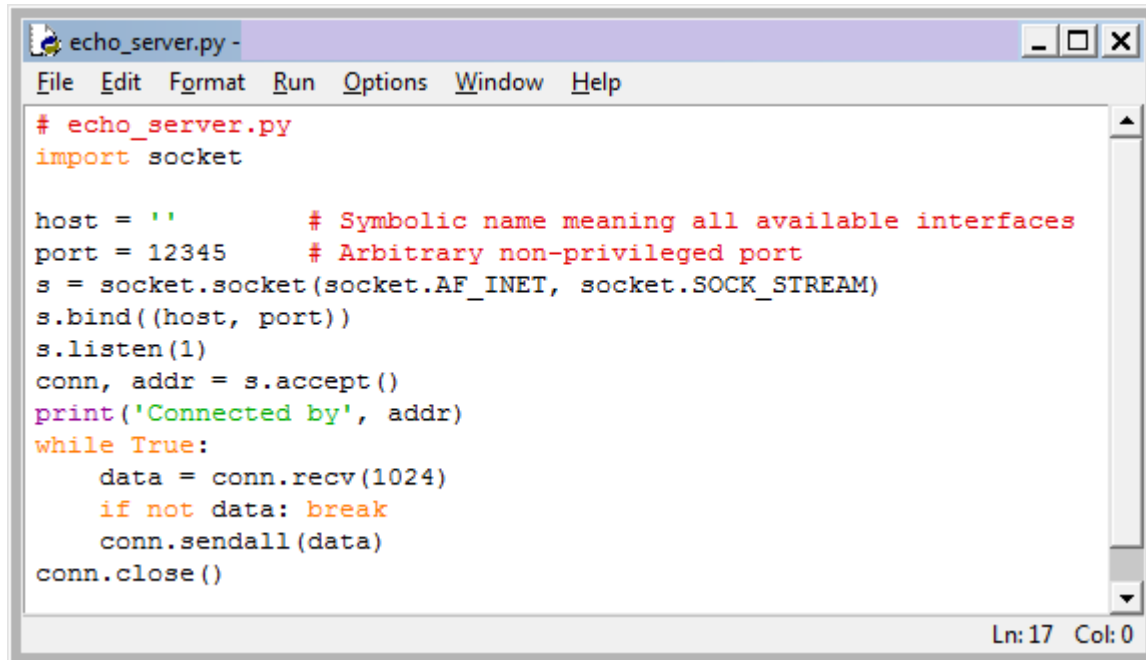


Echo Server

This is an echo server: the server that echoes back all data it receives to a client that sent it.

1. Server:

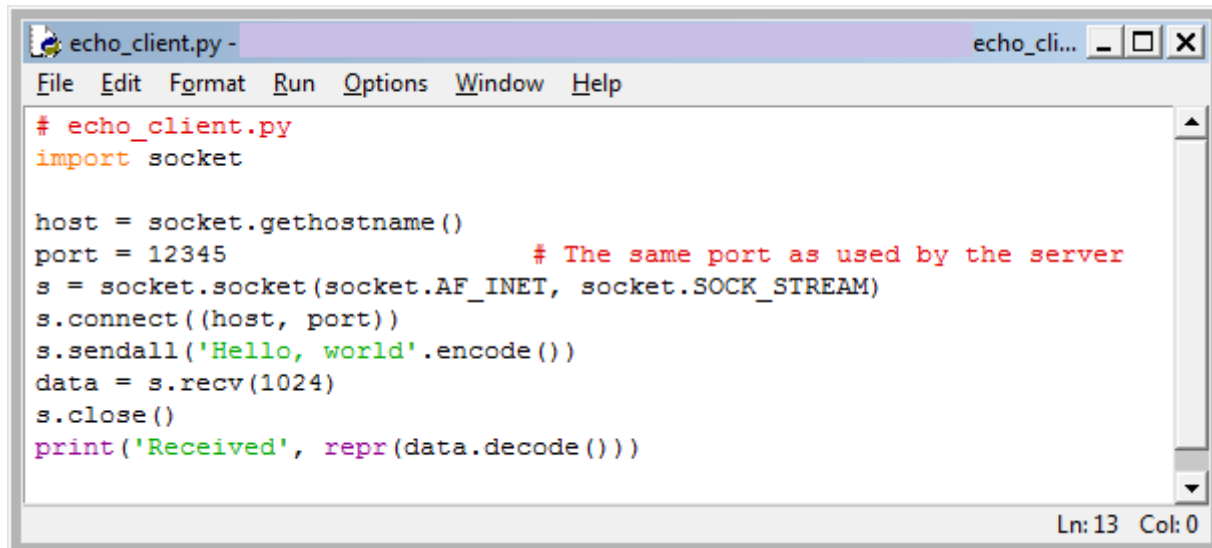


```
# echo_server.py
import socket

host = ''          # Symbolic name meaning all available interfaces
port = 12345       # Arbitrary non-privileged port
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind((host, port))
s.listen(1)
conn, addr = s.accept()
print('Connected by', addr)
while True:
    data = conn.recv(1024)
    if not data: break
    conn.sendall(data)
conn.close()
```

Ln: 17 Col: 0

2. Client:



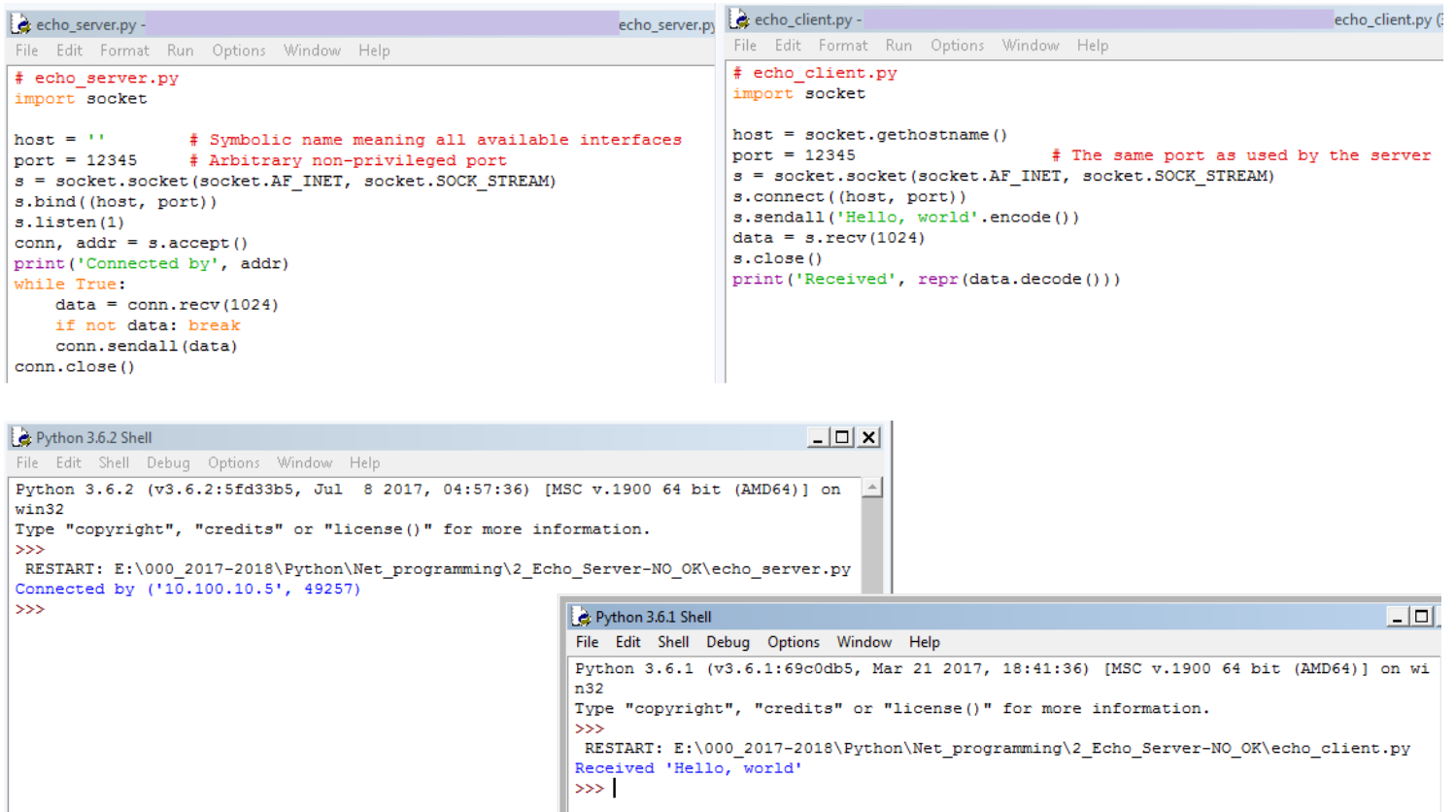
```
# echo_client.py
import socket

host = socket.gethostname()
port = 12345          # The same port as used by the server
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((host, port))
s.sendall('Hello, world'.encode())
data = s.recv(1024)
s.close()
print('Received', repr(data.decode()))
```

Ln: 13 Col: 0

Note that the server does not **sendall()/recv()** on the socket it is listening on but on the new socket returned by **accept()**.

3. Results:



```
# echo_server.py
import socket

host = ''          # Symbolic name meaning all available interfaces
port = 12345       # Arbitrary non-privileged port
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.bind((host, port))
s.listen(1)
conn, addr = s.accept()
print('Connected by', addr)
while True:
    data = conn.recv(1024)
    if not data: break
    conn.sendall(data)
conn.close()
```

```
# echo_client.py
import socket

host = socket.gethostname()
port = 12345       # The same port as used by the server
s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
s.connect((host, port))
s.sendall('Hello, world'.encode())
data = s.recv(1024)
s.close()
print('Received', repr(data.decode()))
```

```
Python 3.6.2 Shell
File Edit Shell Debug Options Window Help
Python 3.6.2 (v3.6.2:5fd33b5, Jul 8 2017, 04:57:36) [MSC v.1900 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: E:\000_2017-2018\Python\Net_programming\2_Echo_Server-NO_OK\echo_server.py
Connected by ('10.100.10.5', 49257)
>>>
```

```
Python 3.6.1 Shell
File Edit Shell Debug Options Window Help
Python 3.6.1 (v3.6.1:69c0db5, Mar 21 2017, 18:41:36) [MSC v.1900 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>>
RESTART: E:\000_2017-2018\Python\Net_programming\2_Echo_Server-NO_OK\echo_client.py
Received 'Hello, world'
>>> |
```

Obs: Studentii sunt invitati sa peronalizeze solutia prezentata mai sus si sa includa in raportul laboratorului o prezentare similara sectiunii “Results” de mai sus