

# MREŽNO PROGRAMIRANJE

## Vježba 1

1. Kreirajte .py skripte s navedenim kodom te ih pokrenite.

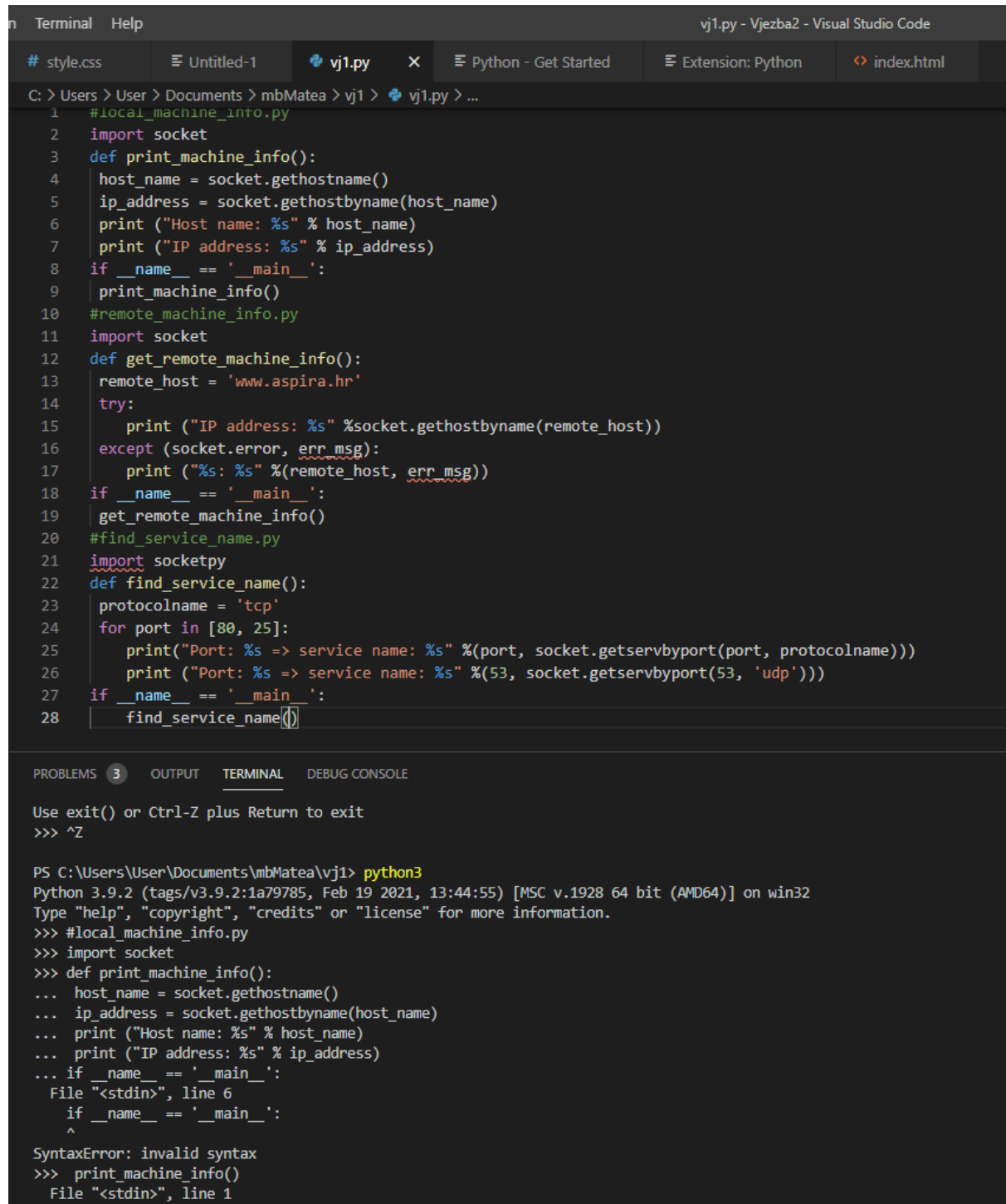


```
C: > Users > User > Documents > mbMatea > vj1 > vj1.py > { } socketpy
1  #local_machine_info.py
2  import socket
3  def print_machine_info():
4      host_name = socket.gethostname()
5      ip_address = socket.gethostbyname(host_name)
6      print ("Host name: %s" % host_name)
7      print ("IP address: %s" % ip_address)
8  if __name__ == '__main__':
9      print_machine_info()
10 #remote_machine_info.py
11 import socket
12 def get_remote_machine_info():
13     remote_host = 'www.aspira.hr'
14     try:
15         print ("IP address: %s" %socket.gethostbyname(remote_host))
16     except (socket.error, err_msg):
17         print ("%s: %s" %(remote_host, err_msg))
18 if __name__ == '__main__':
19     get_remote_machine_info()
20 #find_service_name.py
21 import socketpy
22 def find_service_name():
23     protocolname = 'tcp'
24     for port in [80, 25]:
25         print("Port: %s => service name: %s" %(port, socket.getservbyport(port, protocolname)))
26         print ("Port: %s => service name: %s" %(53, socket.getservbyport(53, 'udp')))
27 if __name__ == '__main__':
28     find_service_name()
```

PROBLEMS 3 OUTPUT TERMINAL DEBUG CONSOLE

```
if __name__ == '__main__':
^
SyntaxError: invalid syntax
PS C:\Users\User\Documents\mbMatea\vj1> python3 vj1.py
Host name: DESKTOP-8BKAFEL
IP address: 192.168.10.30
IP address: 159.69.120.91
Traceback (most recent call last):
  File "C:\Users\User\Documents\mbMatea\vj1\vj1.py", line 21, in <module>
    import socketpy
ModuleNotFoundError: No module named 'socketpy'
PS C:\Users\User\Documents\mbMatea\vj1>
```

2. Sav kod prebacite u interaktivni mod i izvršite ga, te za vježbu priložite screenshotove iz interpretera.



The screenshot shows the Visual Studio Code interface with a Python file named `vj1.py` open. The code in the file is as follows:

```
1 #local_machine_info.py
2 import socket
3 def print_machine_info():
4     host_name = socket.gethostname()
5     ip_address = socket.gethostbyname(host_name)
6     print("Host name: %s" % host_name)
7     print("IP address: %s" % ip_address)
8 if __name__ == '__main__':
9     print_machine_info()
10 #remote_machine_info.py
11 import socket
12 def get_remote_machine_info():
13     remote_host = 'www.aspira.hr'
14     try:
15         print("IP address: %s" % socket.gethostbyname(remote_host))
16     except (socket.error, err_msg):
17         print("%s: %s" % (remote_host, err_msg))
18 if __name__ == '__main__':
19     get_remote_machine_info()
20 #find_service_name.py
21 import socket
22 def find_service_name():
23     protocolname = 'tcp'
24     for port in [80, 25]:
25         print("Port: %s => service name: %s" % (port, socket.getservbyport(port, protocolname)))
26         print("Port: %s => service name: %s" % (53, socket.getservbyport(53, 'udp')))
27 if __name__ == '__main__':
28     find_service_name()
```

The terminal window at the bottom shows the execution of the script using `python3`. The output is as follows:

```
PS C:\Users\User\Documents\mbMatea\vj1> python3
Python 3.9.2 (tags/v3.9.2:1a79785, Feb 19 2021, 13:44:55) [MSC v.1928 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> #local_machine_info.py
>>> import socket
>>> def print_machine_info():
... host_name = socket.gethostname()
... ip_address = socket.gethostbyname(host_name)
... print("Host name: %s" % host_name)
... print("IP address: %s" % ip_address)
... if __name__ == '__main__':
File "<stdin>", line 6
    if __name__ == '__main__':
    ^
SyntaxError: invalid syntax
>>> print_machine_info()
File "<stdin>", line 1
```

```

PROBLEMS 3 OUTPUT TERMINAL DEBUG CONSOLE

File "<stdin>", line 1
    print_machine_info()
IndentationError: unexpected indent
>>> #remote_machine_info.py
>>> import socket
>>> def get_remote_machine_info():
...     remote_host = 'www.aspira.hr'
...     try:
...         print ("IP address: %s" %socket.gethostbyname(remote_host))
...     except (socket.error, err_msg):
...         print ("%s: %s" %(remote_host, err_msg))
... if __name__ == '__main__':
File "<stdin>", line 7
    if __name__ == '__main__':
    ^
SyntaxError: invalid syntax
>>> get_remote_machine_info()
File "<stdin>", line 1
    get_remote_machine_info()
IndentationError: unexpected indent

```

```

PROBLEMS 3 OUTPUT TERMINAL DEBUG CONSOLE

    get_remote_machine_info()
IndentationError: unexpected indent
>>> #find_service_name.py
>>> import socketpy
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
ModuleNotFoundError: No module named 'socketpy'
>>> def find_service_name():
...     protocolname = 'tcp'
...     for port in [80, 25]:
...         print("Port: %s => service name: %s" %(port, socket.getservbyport(port, protocolname)))
...         print ("Port: %s => service name: %s" %(53, socket.getservbyport(53, 'udp')))
... if __name__ == '__main__':
File "<stdin>", line 6
    if __name__ == '__main__':
    ^
SyntaxError: invalid syntax
>>> find_service_name()

```

3. Iskoristite sljedeću funkciju u Pythonu. Potrebno je da za odabrani IP (8.8.8.8) ispišete hostname. Hint: ukoliko je potrebno možete koristiti i funkciju `str()` za pretvaranje u string radi lakšeg ispisa.

```
>>>  
>>> import socket; print ("Hostname: %s" %(str(socket.gethostbyaddr("8.8.8.8"))))  
Hostname: ('dns.google', [], ['8.8.8.8'])  
>>> █
```