**CHAPTER-7**

**SOURCE CODE**

network\_settings = {

1: {'name': 'Network\_1', 'ip\_range': '192.168.1.0/24', 'status': 'active'},

2: {'name': 'Network\_2', 'ip\_range': '192.168.2.0/24', 'status': 'inactive'} }

#print(network\_settings)

def create\_network(network\_id, name, ip\_range, status): if network\_id in network\_settings:

print(f"Network with ID {network\_id} already exists.")

else:

network\_settings[network\_id] = {'name': name, 'ip\_range': ip\_range, 'status': status} print(f"Network '{name}' created with ID {network\_id}.") print(create\_network)

def read\_network(network\_id): network = network\_settings.get(network\_id) if network:

print(f"Network {network\_id}: {network}")

else:

print(f"Network with ID {network\_id} does not exist.")

def update\_network(network\_id, name=None, ip\_range=None, status=None): if network\_id in network\_settings: if name:

network\_settings[network\_id]['name'] = name if ip\_range: network\_settings[network\_id]['ip\_range'] = ip\_range

if status:

network\_settings[network\_id]['status'] = status print(f"Network {network\_id} updated.")

else:

print(f"Network with ID {network\_id} does not exist.")

def delete\_network(network\_id): if network\_id in network\_settings: del network\_settings[network\_id] print(f"Network {network\_id} deleted.")

else:

print(f" Network with ID {network\_id} does not exist.")

def setup\_virtual\_network(network\_id, name, ip\_range, status): if network\_id not in network\_settings:

create\_network(network\_id, name, ip\_range, status) print(f"Virtual network '{name}' is set up with IP range {ip\_range} and status {status}.")

else:

print(f"Network with ID {network\_id} already exists, consider updating it.")

def update\_network\_settings(settings\_id, new\_config): if settings\_id in network\_settings:

network\_settings[settings\_id].update(new\_config)

print(f"Network {settings\_id} updated with new configuration: {new\_config}")

else:

print(f"Network with ID {settings\_id} does not exist.")

create\_network(1, 'Network\_1', '192.168.1.0/24', 'active') read\_network(1)

update\_network(1, name='New\_Network\_1', status='inactive') delete\_network(1)

setup\_virtual\_network(3, 'Network\_3', '192.168.3.0/24', 'active') new\_settings = {'ip\_range': '192.168.1.0/25', 'status': 'inactive'} update\_network\_settings(1, new\_settings)

**CHAPTER-8**

**OUTPUT**

<function create\_network at 0x03A7B438> Network with ID 1 already exists.

Network 1: {'name': 'Network\_1', 'ip\_range': '192.168.1.0/24', 'status': 'active'} Network 1 updated.

Network 1 deleted.

Network 'Network\_3' created with ID 3.

Virtual network 'Network\_3' is set up with IP range 192.168.3.0/24 and status active.

Network with ID 1 does not exist. <function create\_network at 0x03A7B438> Network with ID 1 already exists.

Network 1: {'name': 'Network\_1', 'ip\_range': '192.168.1.0/24', 'status': 'active'} Network 1 updated.

Network 1 deleted.

Network 'Network\_3' created with ID 3.

Virtual network 'Network\_3' is set up with IP range 192.168.3.0/24 and status active.

Network with ID 1 does not exist.