

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:
```

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        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.

