Task 5 : Data Format Conversion

OUTPUT 1

```
------1---------
<class 'str'>

{
 "rack": [
     { "server": { "dev_id": "SRV1" , "server_name": "svr-1" , "domain": "biasc.be", "ip-address": "10.2.3.1" ,
                  "os": "linux"   , "server_type": "vm" ,
                  "services": [
                      {"service": "AD" , "service_type": "vm", "protocol": "tcp", "port": "389"},
                      {"service": "DNS", "service_type": "vm", "protocol": "udp", "port": "53"},
                      {"service": "NTP", "service_type": "vm", "protocol": "udp", "port": "123"}
                  ]
                }
     },
     { "server": { "dev_id": "SRV2" , "server_name": "svr-2" , "domain": "biasc.be", "ip-address": "10.2.3.2" ,
                  "os": "linux"   , "server_type": "vm" ,
                  "services": [
                      {"service": "FLASK", "service_type": "vm", "protocol": "tcp", "port": "8089"  },
                      {"service": "DB"   , "service_type": "vm", "protocol": "tcp", "port": "1521"   }
                  ]
                }
     },
     { "server": { "dev_id": "SRV3" , "server_name": "svr-3" ,  "domain": "biasc.be" , "ip-address": "10.2.3.3",
                  "os": "linux"   , "server_type": "vm" ,
                  "services": [
                      {"service": "DNS" , "service_type": "vm", "protocol": "tcp", "port": "8089" },
                      {"service": "NTP" , "service_type": "vm", "protocol": "udp", "port": "123" },
                      {"service": "DHCP", "service_type": "docker", "protocol": "udp", "port": "67" }
                  ]
                }
     }
   ]
}
```

Class: string

Datatype: YAML

OUTPUT 2

```
------2---------
<class 'dict'>
{'rack': [{'server': {'dev_id': 'SRV1', 'server_name': 'svr-1', 'domain': 'biasc.be', 'ip-address': '10.2.3.1', 'os': 'linux', 'server_type': 'vm', 'services': [{'service': 'AD', 'service_type': 'vm', 'protocol': 'tcp', 'port': '389'}, {'service': 'DNS', 'service_type': 'vm', 'protocol': 'udp', 'port': '53'}, {'service': 'NTP', 'service_type': 'vm', 'protocol': 'udp', 'port': '123'}]}}, {'server': {'dev_id': 'SRV2', 'server_name': 'svr-2', 'domain': 'biasc.be', 'ip-address': '10.2.3.2', 'os': 'linux', 'server_type': 'vm', 'services': [{'service': 'FLASK', 'service_type': 'vm', 'protocol': 'tcp', 'port': '8089'}, {'service': 'DB', 'service_type': 'vm', 'protocol': 'tcp', 'port': '1521'}]}}, {'server': {'dev_id': 'SRV3', 'server_name': 'svr-3', 'domain': 'biasc.be', 'ip-address': '10.2.3.3', 'os': 'linux', 'server_type': 'vm', 'services': [{'service': 'DNS', 'service_type': 'vm', 'protocol': 'tcp', 'port': '8089'}, {'service': 'NTP', 'service_type': 'vm', 'protocol': 'udp', 'port': '123'}, {'service': 'DHCP', 'service_type': 'docker', 'protocol': 'udp', 'port': '67'}]}}]}
```

Class: dictionary

Datatype: JSON

OUTPUT 3

```
------3---------
<class 'str'>
{"rack": [{"server": {"dev_id": "SRV1", "server_name": "svr-1", "domain": "biasc.be", "ip-address": "10.2.3.1", "os": "linux", "server_type": "vm", "services": [{"service": "AD", "service_type": "vm", "protocol": "tcp", "port": "389"}, {"service": "DNS", "service_type": "vm", "protocol": "udp", "port": "53"}, {"service": "NTP", "service_type": "vm", "protocol": "udp", "port": "123"}]}}, {"server": {"dev_id": "SRV2", "server_name": "svr-2", "domain": "biasc.be", "ip-address": "10.2.3.2", "os": "linux", "server_type": "vm", "services": [{"service": "FLASK", "service_type": "vm", "protocol": "tcp", "port": "8089"}, {"service": "DB", "service_type": "vm", "protocol": "tcp", "port": "1521"}]}}, {"server": {"dev_id": "SRV3", "server_name": "svr-3", "domain": "biasc.be", "ip-address": "10.2.3.3", "os": "linux", "server_type": "vm", "services": [{"service": "DNS", "service_type": "vm", "protocol": "tcp", "port": "8089"}, {"service": "NTP", "service_type": "vm", "protocol": "udp", "port": "123"}, {"service": "DHCP", "service_type": "docker", "protocol": "udp", "port": "67"}]}}]}
```

Class: string

Datatype: JSON

OUTPUT 4

```
cot : udp , port : 67 y
------4---------
<class 'str'>
rack:
- server:
    dev_id: SRV1
    domain: biasc.be
    ip-address: 10.2.3.1
    os: linux
    server_name: svr-1
    server_type: vm
    services:
    - port: '389'
      protocol: tcp
      service: AD
      service_type: vm
    - port: '53'
      protocol: udp
      service: DNS
      service_type: vm
    - port: '123'
      protocol: udp
      service: NTP
      service_type: vm
- server:
    dev_id: SRV2
    domain: biasc.be
    ip-address: 10.2.3.2
    os: linux
    server_name: svr-2
    server_type: vm
    services:
    - port: '8089'
      protocol: tcp
      service: FLASK
      service_type: vm
    - port: '1521'
      protocol: tcp
      service: DB
      service_type: vm
- server:
    dev_id: SRV3
    domain: biasc.be
    ip-address: 10.2.3.3
    os: linux
    server_name: svr-3
    server_type: vm
    services:
    - port: '8089'
      protocol: tcp
      service: DNS
      service_type: vm
    - port: '123'
      protocol: udp
      service: NTP
      service_type: vm
    - port: '67'
      protocol: udp
      service: DHCP
      service_type: docker
```

```
['AliasEvent', 'AliasToken', 'AnchorToken', 'BaseDumper', 'BaseLoader', 'BlockEndToken', 'BlockEntryToken', 'BlockMappingStartToken', 'BlockSequenceStartToken', 'CBaseDumper', 'CBaseLoader', 'CDumper', 'CFullLoa
der', 'CLoader', 'CSafeDumper', 'CSafeLoader', 'CUnsafeLoader', 'CollectionEndEvent', 'CollectionNode', 'CollectionStartEvent', 'DirectiveToken', 'DocumentEndEvent', 'DocumentEndToken', 'DocumentStartEvent', 'Do
cumentStartToken', 'Dumper', 'Event', 'FlowEntryToken', 'FlowMappingEndToken', 'FlowMappingStartToken', 'FlowSequenceEndToken', 'FlowSequenceStartToken', 'FullLoader', 'KeyToken', 'Loader', 'MappingEndEvent', 'M
appingNode', 'MappingStartEvent', 'Mark', 'MarkedYAMLError', 'Node', 'NodeEvent', 'SafeDumper', 'SafeLoader', 'ScalarEvent', 'ScalarNode', 'ScalarToken', 'SequenceEndEvent', 'SequenceNode', 'SequenceStartEvent',
'StreamEndEvent', 'StreamEndToken', 'StreamStartEvent', 'StreamStartToken', 'TagToken', 'Token', 'UnsafeLoader', 'ValueToken', 'YAMLError', 'YAMLLoadWarning', 'YAMLObject', 'YAMLObjectMetaclass', '__builtins__
', '__cached__', '__doc__', '__file__', '__loader__', '__name__', '__package__', '__path__', '__spec__', '__version__', '__with_libyaml__', '_warnings_enabled', 'add_constructor', 'add_implicit_resolver', 'add_mu
lti_constructor', 'add_multi_representer', 'add_path_resolver', 'add_representer', 'compose', 'compose_all', 'composer', 'constructor', 'cyaml', 'dump', 'dump_all', 'dumper', 'emit', 'emitter', 'error', 'events',
'full_load', 'full_load_all', 'io', 'load', 'load_all', 'load_warning', 'loader', 'nodes', 'parse', 'parser', 'reader', 'representer', 'resolver', 'safe_dump', 'safe_dump_all', 'safe_load', 'safe_load_all', 's
can', 'scanner', 'serialize', 'serialize_all', 'serializer', 'tokens', 'unsafe_load', 'unsafe_load_all', 'warnings']
```

Class: string

Datatype: YAML

OUTPUT 5

```
------5---------
<class 'dict'>
dict_keys(['service', 'service_type', 'protocol', 'port'])
------5A---------
<class 'dict'>
{'server': {'dev_id': 'SRV1', 'server_name': 'svr-1', 'domain': 'biasc.be', 'ip-address': '10.2.3.1', 'os': 'linux', 'server_type': 'vm', 'services': [{'service': 'AD', 'service_type': 'vm', 'protocol': 'tcp',
port': '389'}, {'service': 'DNS', 'service_type': 'vm', 'protocol': 'udp', 'port': '53'}, {'service': 'NTP', 'service_type': 'vm', 'protocol': 'udp', 'port': '123'}]}}
AD
linux
AD 389
DNS 53
NTP 123
------5A---------
<class 'dict'>
{'server': {'dev_id': 'SRV2', 'server_name': 'svr-2', 'domain': 'biasc.be', 'ip-address': '10.2.3.2', 'os': 'linux', 'server_type': 'vm', 'services': [{'service': 'FLASK', 'service_type': 'vm', 'protocol': 'tcp'
, 'port': '8089'}, {'service': 'DB', 'service_type': 'vm', 'protocol': 'tcp', 'port': '1521'}]}}
FLASK
linux
FLASK 8089
DB 1521
------5A---------
<class 'dict'>
{'server': {'dev_id': 'SRV3', 'server_name': 'svr-3', 'domain': 'biasc.be', 'ip-address': '10.2.3.3', 'os': 'linux', 'server_type': 'vm', 'services': [{'service': 'DNS', 'service_type': 'vm', 'protocol': 'tcp',
'port': '8089'}, {'service': 'NTP', 'service_type': 'vm', 'protocol': 'udp', 'port': '123'}, {'service': 'DHCP', 'service_type': 'docker', 'protocol': 'udp', 'port': '67'}]}}
DNS
linux
DNS 8089
NTP 123
DHCP 67
```

Class: dictionary

Datatype: JSON