

Initial Customer Table:

<input type="checkbox"/> Modify	cid	cname
<input type="checkbox"/> edit	1	U1
<input type="checkbox"/> edit	2	U2
<input type="checkbox"/> edit	3	U3
<input type="checkbox"/> edit	4	U4
<input type="checkbox"/> edit	5	U5
<input type="checkbox"/> edit	6	U6
<input type="checkbox"/> edit	7	U7
<input type="checkbox"/> edit	8	U8
<input type="checkbox"/> edit	9	U9
<input type="checkbox"/> edit	10	U10

Initial Product Table:

<input type="checkbox"/> Modify	pid	pname	price	qty
<input type="checkbox"/> edit	1	yogurt	5	95
<input type="checkbox"/> edit	2	pork	10	1000
<input type="checkbox"/> edit	3	sandwich bags	20	20
<input type="checkbox"/> edit	4	lunch meat	100	999
<input type="checkbox"/> edit	5	all- purpose	10	10
<input type="checkbox"/> edit	6	flour	1000	1000
<input type="checkbox"/> edit	7	soda	100	100
<input type="checkbox"/> edit	8	butter	10	10
<input type="checkbox"/> edit	9	vegetables	10	10
<input type="checkbox"/> edit	10	aluminum foil	10	10
<input type="checkbox"/> edit	11	mixes	10	10
<input type="checkbox"/> edit	12	tortillas	10	10
<input type="checkbox"/> edit	13	shampoo	10	10
<input type="checkbox"/> edit	14	toilet papers	101	1000
<input type="checkbox"/> edit	15	cereals	5	10
<input type="checkbox"/> edit	16	dinner rolls	100	100
<input type="checkbox"/> edit	17	waffles	5	5

Gateway interface – gateway is running on two different instances:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | Welcome to KVS x | Welcome to KVS x | +

localhost:5001

Add or remove item from the customer cart:

Customer name: U1 Product name: yogurt

Add Remove

Show the customer cart:

Customer name: U1

Get Cart

Admin operation - List all carts:

Key: Product Name Value:

Get All Carts

ADD U4 yogurt:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | Welcome to KVS x | Welcome to KVS x | +

localhost:5001

Add or remove item from the customer cart:

Customer name: U4 Product name: yogurt

Add Remove

Show the customer cart:

Customer name: U1

Get Cart

Admin operation - List all carts:

Key: Product Name Value:

Get All Carts

yogurt
pork
sandwich bags
lunch meat
all-purpose
flour
soda
butter
vegetables
aluminum foil
mixes
tortillas
shampoo
toilet papers
cereals
dinner rolls
waffles

Cart of U4 after ADD U4 yogurt:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | localhost:5001/add x

localhost:5001/add

"{'cart': {'1': 1}, 'vc': {'720dd737c8d6_kvs': 1}}"

Product table qty get reduced for yogurt from 95 to 94:

<input type="checkbox"/> Modify	pid	pname	price	qty
<input type="checkbox"/> edit	1	yogurt	5	94
<input type="checkbox"/> edit	2	pork	10	1000
<input type="checkbox"/> edit	3	sandwich bags	20	20
<input type="checkbox"/> edit	4	lunch meat	100	999
<input type="checkbox"/> edit	5	all- purpose	10	10
<input type="checkbox"/> edit	6	flour	1000	1000
<input type="checkbox"/> edit	7	soda	100	100
<input type="checkbox"/> edit	8	butter	10	10
<input type="checkbox"/> edit	9	vegetables	10	10
<input type="checkbox"/> edit	10	aluminum foil	10	10
<input type="checkbox"/> edit	11	mixes	10	10
<input type="checkbox"/> edit	12	tortillas	10	10
<input type="checkbox"/> edit	13	shampoo	10	10
<input type="checkbox"/> edit	14	toilet papers	101	1000
<input type="checkbox"/> edit	15	cereals	5	10
<input type="checkbox"/> edit	16	dinner rolls	100	100
<input type="checkbox"/> edit	17	waffles	5	5

ADD U7 pork:

201_assignment2_p1_dataset.xlsx
Select: product - db - Adminer
Welcome to KVS

localhost:5001

Add or remove item from the customer cart:

Customer name: U7 Product name: pork
Add Remove

Show the customer cart:

Customer name: U1
Get Cart

Admin operation - List all carts:

Key: Product Name Value:
Get All Carts

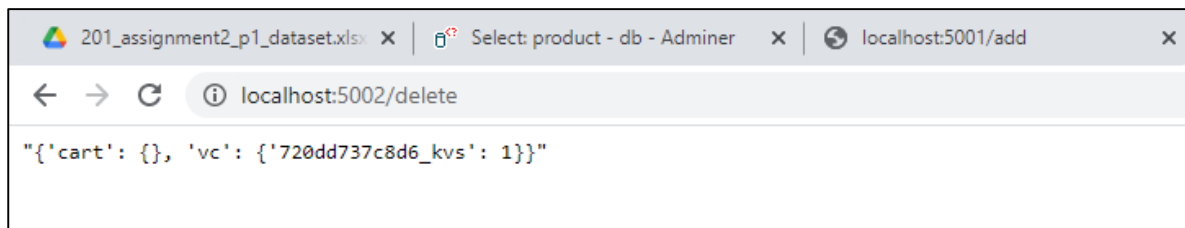
Cart of U7 after ADD U7 pork:

201_assignment2_p1_dataset.xlsx
Select: product - db - Adminer
localhost:5001/add

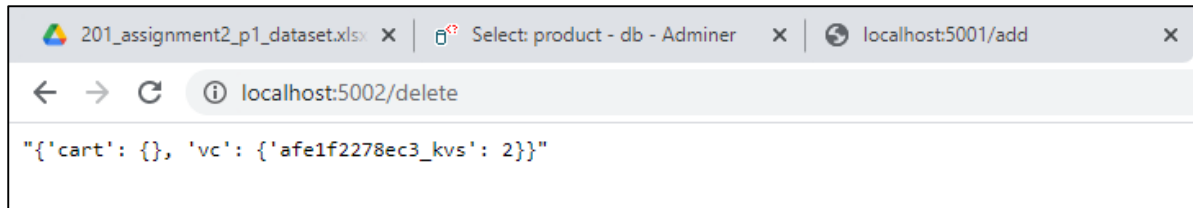
localhost:5001/add

```
"{'cart': {'2': 1}, 'vc': {'afe1f2278ec3_kvs': 1}}"
```

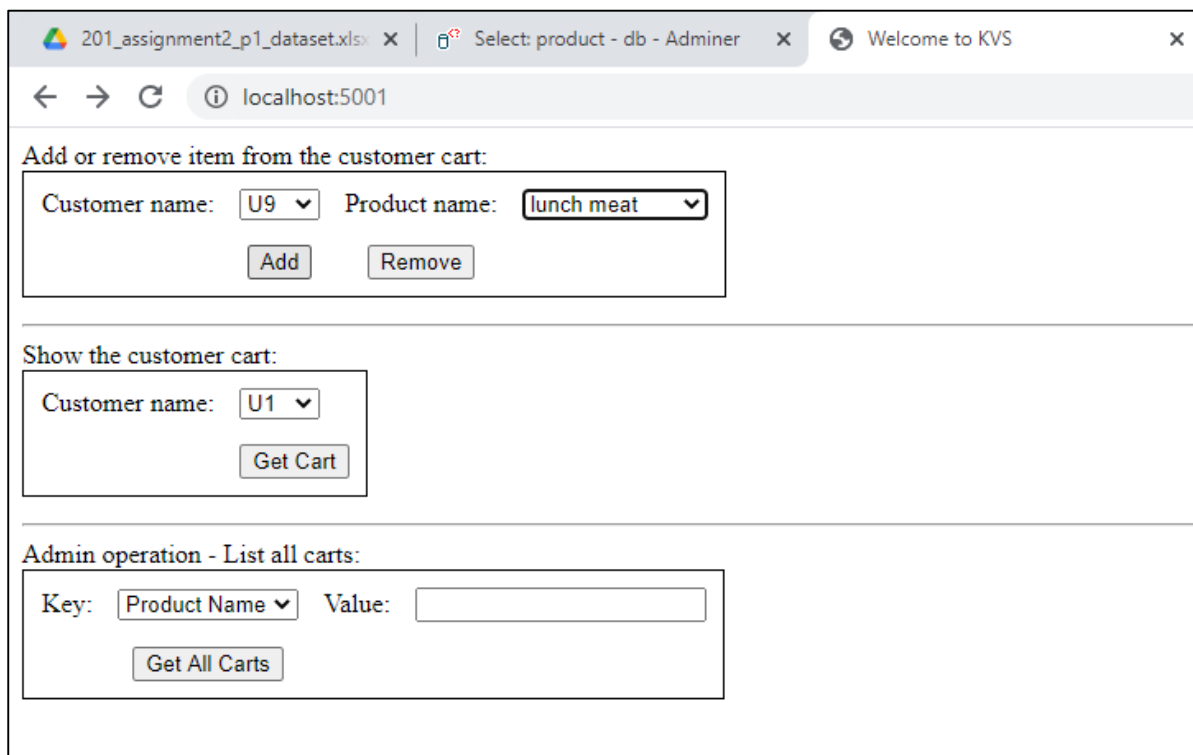
Cart of U7 after U7 DELETE pork:



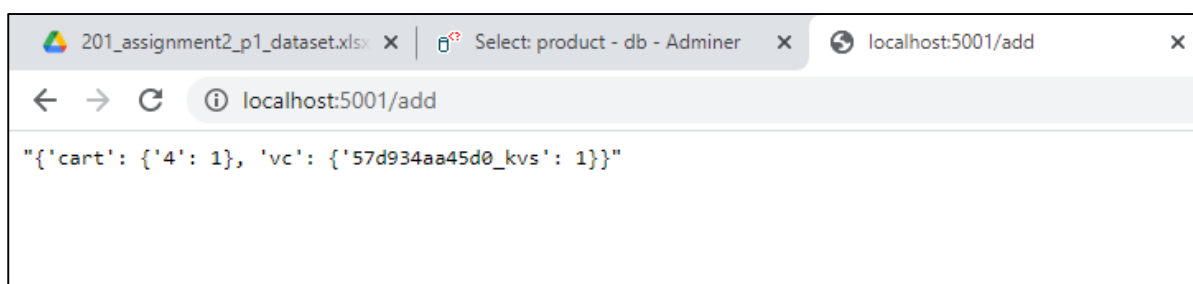
U9 cart after 'U9 ADD sandwich bags' and 'U9 DELETE sandwich bags' operations:



U9 ADD lunch meat operation:



U9 cart after U9 ADD lunch meat operation:



U2 ADD all-purpose operation:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | Welcome to KVS x

localhost:5001

Add or remove item from the customer cart:

Customer name: U2 v Product name: all-purpose v

Add Remove

Show the customer cart:

Customer name: U1 v

Get Cart

Admin operation - List all carts:

Key: Product Name v Value:

Get All Carts

U2 cart after U2 ADD all-purpose:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | localhost:5001/add x

localhost:5001/add

"{'cart': {'5': 1}, 'vc': {'afe1f2278ec3_kvs': 1}}"

U2 cart after U2 DELETE all-purpose:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | localhost:5001/add x

localhost:5002/delete

"{'cart': {}, 'vc': {'57d934aa45d0_kvs': 1}}"

LISTALL operation for sandwich bags:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | Welcome to KVS x

localhost:5001

Add or remove item from the customer cart:

Customer name: U1 Product name: yogurt

Add Remove

Show the customer cart:

Customer name: U1

Get Cart

Admin operation - List all carts:

Key: Product Name Value: sandwich bags

Get All Carts

Carts having sandwich bags are None:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | localhost:5001/listall x

localhost:5001/listall

""

Carts having lunch meat are:

201_assignment2_p1_dataset.xls x | Select: product - db - Adminer x | localhost:5001/listall x | localhost:500 x

localhost:5001/listall

"{'cust_id': '9', 'cart': {'4': 1}, 'vc': {'afe1f2278ec3_kvs': 2, '57d934aa45d0_kvs': 1, '720dd737c8d6_kvs': 0}}"

Current product table:

<input type="checkbox"/> Modify	pid	pname	price	qty
<input type="checkbox"/> edit	1	yogurt	5	94
<input type="checkbox"/> edit	2	pork	10	1000
<input type="checkbox"/> edit	3	sandwich bags	20	20
<input type="checkbox"/> edit	4	lunch meat	100	998
<input type="checkbox"/> edit	5	all- purpose	10	10
<input type="checkbox"/> edit	6	flour	1000	1000
<input type="checkbox"/> edit	7	soda	100	100
<input type="checkbox"/> edit	8	butter	10	10
<input type="checkbox"/> edit	9	vegetables	10	10
<input type="checkbox"/> edit	10	aluminum foil	10	10
<input type="checkbox"/> edit	11	mixes	10	10
<input type="checkbox"/> edit	12	tortillas	10	10
<input type="checkbox"/> edit	13	shampoo	10	10
<input type="checkbox"/> edit	14	toilet papers	101	1000
<input type="checkbox"/> edit	15	cereals	5	10
<input type="checkbox"/> edit	16	dinner rolls	100	100
<input type="checkbox"/> edit	17	waffles	5	5

After performing all the operations mentioned in the dataset given as sample for the assignment:

Get cart for U2:

Show the customer cart:

Customer name:

U2 cart:

```

{"cart":{"16":1,"5":1},"vc":{"clock":{"57d934aa45d0_kvs":3,"afe1f2278ec3_kvs":2,"6b3059651104_kvs":0}}}

```

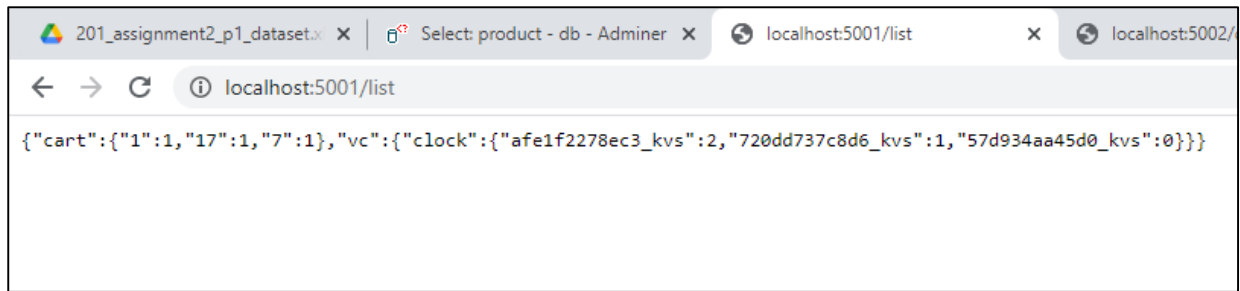
U3 cart:

```

{"cart":{},"vc":{"clock":{"6b3059651104_kvs":4,"57d934aa45d0_kvs":0,"afe1f2278ec3_kvs":2}}}

```

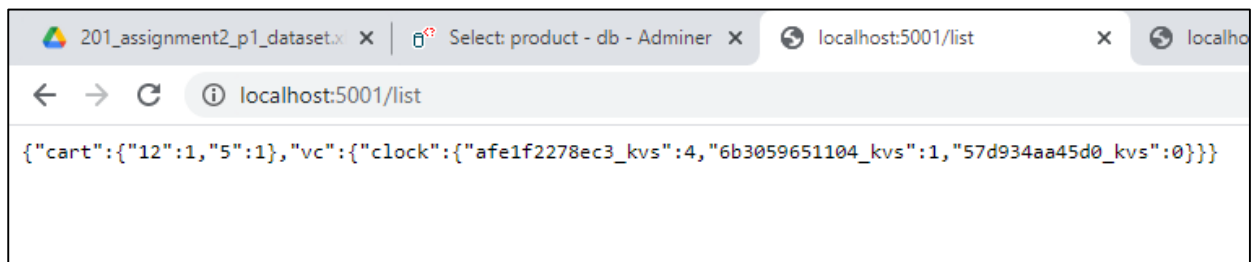
U4 cart:



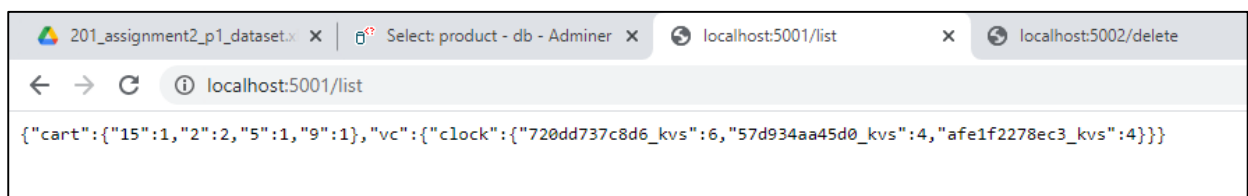
U5 cart:



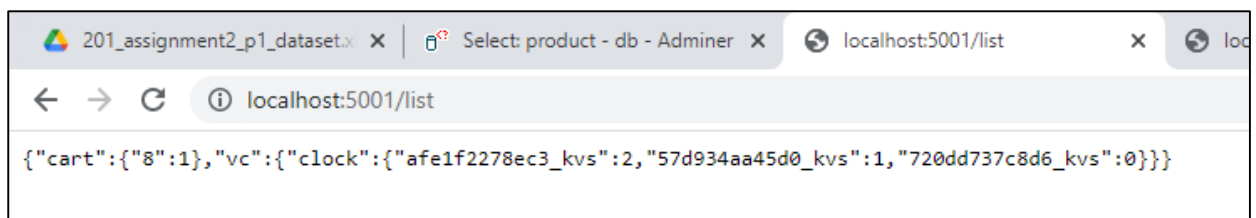
U6 cart:



U7 cart:



U8 cart:



U9 cart:


```
201_assignment2_p1_dataset.x | Select: product - db - Adminer | localhost:5001/list | localhost:5002/del

localhost:5001/list

{"cart":{"10":1,"13":1,"4":1},"vc":{"clock":{"afe1f2278ec3_kvs":2,"57d934aa45d0_kvs":3,"720dd737c8d6_kvs":1}}}
```

U10 cart:

```
201_assignment2_p1_dataset.x | Select: product - db - Adminer | localhost:5001/list | localhost:5002/del

localhost:5001/list

{"cart":{"7":1},"vc":{"clock":{"57d934aa45d0_kvs":0,"720dd737c8d6_kvs":1,"6b3059651104_kvs":0}}}
```

Current product table:

<input type="checkbox"/> Modify	pid	pname	price	qty
<input type="checkbox"/> edit	1	yogurt	5	95
<input type="checkbox"/> edit	2	pork	10	999
<input type="checkbox"/> edit	3	sandwich bags	20	20
<input type="checkbox"/> edit	4	lunch meat	100	998
<input type="checkbox"/> edit	5	all- purpose	10	9
<input type="checkbox"/> edit	6	flour	1000	1000
<input type="checkbox"/> edit	7	soda	100	98
<input type="checkbox"/> edit	8	butter	10	9
<input type="checkbox"/> edit	9	vegetables	10	8
<input type="checkbox"/> edit	10	aluminum foil	10	10
<input type="checkbox"/> edit	11	mixes	10	10
<input type="checkbox"/> edit	12	tortillas	10	10
<input type="checkbox"/> edit	13	shampoo	10	9
<input type="checkbox"/> edit	14	toilet papers	101	1000
<input type="checkbox"/> edit	15	cereals	5	10
<input type="checkbox"/> edit	16	dinner rolls	100	99
<input type="checkbox"/> edit	17	waffles	5	4

LISTALL product name yogurt:

```
201_assignment2_p1_d | Select: product - db - Adminer | localhost:5001/listall | localhost:5002/delete | home - cloudcomputin | main.pdf

localhost:5001/listall

{"cust_id": "1", "cart": {"1": 1, "14": 1, "3": 1, "9": 1}, "vc": {"2b6485bd9b9e_kvs": 2, "57d934aa45d0_kvs": 7, "6b3059651104_kvs": 2}}{"cust_id": "4", "cart": {"1": 1, "17": 1, "7": 1}, "vc": {"afe1f2278ec3_kvs": 2, "720dd737c8d6_kvs": 1, "57d934aa45d0_kvs": 0}}"
```

LISTALL product name pork:

```
201_assignment2_p1_o... x Select-product - db - A... x localhost:5001/install x localhost:5002/delete x home - cloudcomputin... x main.pdf x  
localhost:5001/install  
*{'cust_id': '7', 'cart': {'15': 1, '2': 2, '5': 1, '9': 1}, 'vc': {'720dd737c8d6_kvs': 6, '57d934aa45d0_kvs': 4, 'afe1f2278ec3_kvs': 4}}*
```

LISTALL product name waffles:

```
201_assignment2_p1_o... x Select-product - db - A... x Welcome to KVS x localhost:5002/install x home - cloudcomputin... x main.pdf x  
localhost:5002/install  
*{'cust_id': '4', 'cart': {'1': 1, '17': 1, '7': 1}, 'vc': {'afe1f2278ec3_kvs': 2, '720dd737c8d6_kvs': 1, '57d934aa45d0_kvs': 0}}*{'cust_id': '5', 'cart': {'17': 1, '6': 1}, 'vc': {'720dd737c8d6_kvs': 2, 'afe1f2278ec3_kvs': 1, '2b6485bd9b9e_kvs': 2}}*
```

Docker containers IP listing:

```
Containers": {  
  "23344a3ec25ff19738f8b5d13542cb3da79a5a225765e0f361c23c9cb2673aac": {  
    "Name": "shopping-cart-kvs_crush_1",  
    "EndpointID": "c0adfa2b49a05fa8e5f1983c52dce4614ee50131dc840a5013db9aaf9dd2bfff6",  
    "MacAddress": "02:42:0a:00:00:17",  
    "IPv4Address": "10.0.0.23/16",  
    "IPv6Address": ""  
  },  
  "2b6485bd9b9e8788afb823cc01f105a01d53f8bd6e0448bef7836a068e5aefb": {  
    "Name": "shopping-cart-kvs_kvs_4",  
    "EndpointID": "110fa772b4bf02e517b7a8e4d58b4df5975affdb533fd75ef8569056a120e4b7",  
    "MacAddress": "02:42:0a:00:00:0a",  
    "IPv4Address": "10.0.0.10/16",  
    "IPv6Address": ""  
  },  
  "36960881cd5be45f2b6712b1736415067970667d6cece2f70d12a87a84263146": {  
    "Name": "shopping-cart-kvs_gateway_2",  
    "EndpointID": "98afd9db90610fc6a787db5ba35f5a3a201a02ba8193599f676d6fe2cd8827a",  
    "MacAddress": "02:42:0a:00:00:05",  
    "IPv4Address": "10.0.0.5/16",  
    "IPv6Address": ""  
  },  
  "57b8f42a2c76ed9f30d4f5bc3aea3fa8aa7ce70586fc654eb10def16a667e06a": {  
    "Name": "shopping-cart-kvs_adminer_1",  
    "EndpointID": "69cb30a87dfb3894a2ebf04120fbbe205a391da80de76dccc3c05631b50fc9149",  
    "MacAddress": "02:42:0a:00:00:19",  
    "IPv4Address": "10.0.0.25/16",  
    "IPv6Address": ""  
  },  
  "57d934aa45d05c845a057748a2eeeee4eeffed04294f83bc661fb66800201e18": {  
    "Name": "shopping-cart-kvs_kvs_5",  
    "EndpointID": "08aed1971bf0631090e4da1075a7a13450b6b536793f0b7dfb884e6f6cb441c1",  
    "MacAddress": "02:42:0a:00:00:0b",  
    "IPv4Address": "10.0.0.11/16",  
    "IPv6Address": ""  
  },  
  "720dd737c8d622e94ae2644eb532cebb2925839f672601af85b233d51d9c265f": {  
    "Name": "shopping-cart-kvs_db_1",  
    "EndpointID": "4dc31d328702ceefdf0f8d1b77c0c6d0d4a96ab0e9deebdb696c2cd44df2e1e2b",  
    "MacAddress": "02:42:0a:00:00:18",  
    "IPv4Address": "10.0.0.24/16",  
    "IPv6Address": ""  
  },  
  "6b30596511048f29f0b35d892372a685d7a6917640d4f9bda64a8d3792325a90": {  
    "Name": "shopping-cart-kvs_kvs_2",  
    "EndpointID": "d9064630ad0342d988d2cc314f49f7d6026bc18faf8b694e8012b0c32feb2f43",  
    "MacAddress": "02:42:0a:00:00:06",  
    "IPv4Address": "10.0.0.6/16",  
    "IPv6Address": ""  
  },  
  "720dd737c8d622e94ae2644eb532cebb2925839f672601af85b233d51d9c265f": {  
    "Name": "shopping-cart-kvs_kvs_1",  
    "EndpointID": "236d3e3f9b647a0cf5bb7686046b64fb3514d2c1d55a0ba1a2216c17cfab09b1",  
    "MacAddress": "02:42:0a:00:00:09",  
    "IPv4Address": "10.0.0.9/16",  
    "IPv6Address": ""  
  },  
  "9f6f33540013d763c26417fe03ed1f9463e7c2edec1e091ee38a43bfcd252c11": {  
    "Name": "shopping-cart-kvs_gateway_1",  
    "EndpointID": "8ba12d19f55c0002fbbcb9e8cbd01d7468756783ac775be69019d49dccb0e1de",  
    "MacAddress": "02:42:0a:00:00:07",  
    "IPv4Address": "10.0.0.7/16",  
    "IPv6Address": ""  
  },  
  "a732e038185ae6f8311ec592c7b4296e7e9362f27338eed2ed599a9670f49bfff": {  
    "Name": "shopping-cart-kvs_zoo2_1",  
    "EndpointID": "4f12b2f42770219e73ec9d143f73cd082e3daadfd34604b131a0fd5af234c281",  
    "MacAddress": "02:42:0a:00:00:02",  
    "IPv4Address": "10.0.0.2/16",  
    "IPv6Address": ""  
  },  
  "afe1f2278ec3a348c31d482217a1be527fa7313b7e4420b05c0c6619bfaf995": {  
    "Name": "shopping-cart-kvs_kvs_3",  
    "EndpointID": "05706a1983e929d4f63b5e06fde2d6b439f72dbcc39479e7e5d2fbc2c42f18d2",  
    "MacAddress": "02:42:0a:00:00:08",  
    "IPv4Address": "10.0.0.8/16",  
    "IPv6Address": ""  
  },  
  "b0d44d7c41f0b7e0859cccfac9e5d624cbf9dee34d801304aae301d1bf378626": {  
    "Name": "shopping-cart-kvs_zoo1_1",  
    "EndpointID": "7f057a16fc37c611c1597d718787c1870451419975c79a08c9a2f9f3e7a6f486",  
    "MacAddress": "02:42:0a:00:00:03",  
    "IPv4Address": "10.0.0.3/16",  
    "IPv6Address": ""  
  },  
  "d0c8295c4756406dc62c8d7197effa18613128da6b25b38fdb94f2bba6fbca03": {  
    "Name": "shopping-cart-kvs_zoo3_1",  
    "EndpointID": "64bbdb08f0014512208002ca4c28adf5f150fbefbfd762687e8efffb9d9a777c10",  
    "MacAddress": "02:42:0a:00:00:04",  
    "IPv4Address": "10.0.0.4/16",  
    "IPv6Address": ""  
  },  
}
```