Phase2 result:

su@SUs-MacBook-Pro cmpe273-fall20-master % pipenv run python client\_producer.py

Servers: ['tcp://127.0.0.1:2000', 'tcp://127.0.0.1:2001', 'tcp://127.0.0.1:2002', 'tcp://127.0.0.1:2003']

Starting...

Creating a server connection to tcp://127.0.0.1:2000...

Creating a server connection to tcp://127.0.0.1:2001...

Creating a server connection to tcp://127.0.0.1:2002...

Creating a server connection to tcp://127.0.0.1:2003...

Starting PUT...

Sending data:{'op': 'PUT', 'key': 'key-0', 'value': 'value-0'}

Sending data:{'op': 'PUT', 'key': 'key-1', 'value': 'value-1'}

Sending data:{'op': 'PUT', 'key': 'key-2', 'value': 'value-2'}

Sending data:{'op': 'PUT', 'key': 'key-3', 'value': 'value-3'}

Sending data:{'op': 'PUT', 'key': 'key-4', 'value': 'value-4'}

Sending data:{'op': 'PUT', 'key': 'key-5', 'value': 'value-5'}

Sending data:{'op': 'PUT', 'key': 'key-6', 'value': 'value-6'}

Sending data:{'op': 'PUT', 'key': 'key-7', 'value': 'value-7'}

Sending data:{'op': 'PUT', 'key': 'key-8', 'value': 'value-8'}

Sending data:{'op': 'PUT', 'key': 'key-9', 'value': 'value-9'}

Done

Starting GET\_ONE...

Sending data:{'op': 'GET\_ONE', 'key': 'key-0'}

{'key': 'key-0', 'value': 'value-0'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-1'}

{'key': 'key-1', 'value': 'value-1'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-2'}

{'key': 'key-2', 'value': 'value-2'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-3'}

{'key': 'key-3', 'value': 'value-3'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-4'}

{'key': 'key-4', 'value': 'value-4'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-5'}

{'key': 'key-5', 'value': 'value-5'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-6'}

{'key': 'key-6', 'value': 'value-6'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-7'}

{'key': 'key-7', 'value': 'value-7'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-8'}

{'key': 'key-8', 'value': 'value-8'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-9'}

{'key': 'key-9', 'value': 'value-9'}

Done

Starting GET\_ALL...

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2000

tcp://127.0.0.1:2000 {'collection': [{'key': 'key-0', 'value': 'value-0'}, {'key': 'key-2', 'value': 'value-2'}, {'key': 'key-3', 'value': 'value-3'}, {'key': 'key-7', 'value': 'value-7'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2001

tcp://127.0.0.1:2001 {'collection': [{'key': 'key-6', 'value': 'value-6'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2002

tcp://127.0.0.1:2002 {'collection': [{'key': 'key-1', 'value': 'value-1'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2003

tcp://127.0.0.1:2003 {'collection': [{'key': 'key-4', 'value': 'value-4'}, {'key': 'key-5', 'value': 'value-5'}, {'key': 'key-8', 'value': 'value-8'}, {'key': 'key-9', 'value': 'value-9'}]}

Done

Adding node 4

Registering a server at:2004...

Wait for 5 seconds

Rebalancing...

Starting GET\_ALL...

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2000

tcp://127.0.0.1:2000 {'collection': [{'key': 'key-0', 'value': 'value-0'}, {'key': 'key-2', 'value': 'value-2'}, {'key': 'key-3', 'value': 'value-3'}, {'key': 'key-7', 'value': 'value-7'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2001

tcp://127.0.0.1:2001 {'collection': [{'key': 'key-6', 'value': 'value-6'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2002

tcp://127.0.0.1:2002 {'collection': [{'key': 'key-1', 'value': 'value-1'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2003

tcp://127.0.0.1:2003 {'collection': [{'key': 'key-4', 'value': 'value-4'}, {'key': 'key-5', 'value': 'value-5'}, {'key': 'key-8', 'value': 'value-8'}, {'key': 'key-9', 'value': 'value-9'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2004

tcp://127.0.0.1:2004 {'collection': [{'key': 'key-8', 'value': 'value-8'}]}

Done

Starting GET\_ONE...

Sending data:{'op': 'GET\_ONE', 'key': 'key-0'}

{'key': 'key-0', 'value': 'value-0'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-1'}

{'key': 'key-1', 'value': 'value-1'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-2'}

{'key': 'key-2', 'value': 'value-2'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-3'}

{'key': 'key-3', 'value': 'value-3'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-4'}

{'key': 'key-4', 'value': 'value-4'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-5'}

{'key': 'key-5', 'value': 'value-5'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-6'}

{'key': 'key-6', 'value': 'value-6'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-7'}

{'key': 'key-7', 'value': 'value-7'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-8'}

{'key': 'key-8', 'value': 'value-8'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-9'}

{'key': 'key-9', 'value': 'value-9'}

Done

Removing node tcp://127.0.0.1:2000...

Sending data:{'op': 'PUT', 'key': 'key-0', 'value': 'value-0'}

Sending data:{'op': 'PUT', 'key': 'key-2', 'value': 'value-2'}

Sending data:{'op': 'PUT', 'key': 'key-3', 'value': 'value-3'}

Sending data:{'op': 'PUT', 'key': 'key-7', 'value': 'value-7'}

De-registering a server tcp://127.0.0.1:2000...

Done

Starting GET\_ALL...

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2001

tcp://127.0.0.1:2001 {'collection': [{'key': 'key-6', 'value': 'value-6'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2002

tcp://127.0.0.1:2002 {'collection': [{'key': 'key-1', 'value': 'value-1'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2003

tcp://127.0.0.1:2003 {'collection': [{'key': 'key-4', 'value': 'value-4'}, {'key': 'key-5', 'value': 'value-5'}, {'key': 'key-8', 'value': 'value-8'}, {'key': 'key-9', 'value': 'value-9'}, {'key': 'key-0', 'value': 'value-0'}, {'key': 'key-2', 'value': 'value-2'}]}

Sending data:{'op': 'GET\_ALL'} to tcp://127.0.0.1:2004

tcp://127.0.0.1:2004 {'collection': [{'key': 'key-8', 'value': 'value-8'}, {'key': 'key-3', 'value': 'value-3'}, {'key': 'key-7', 'value': 'value-7'}]}

Done

Starting GET\_ONE...

Sending data:{'op': 'GET\_ONE', 'key': 'key-0'}

{'key': 'key-0', 'value': 'value-0'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-1'}

{'key': 'key-1', 'value': 'value-1'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-2'}

{'key': 'key-2', 'value': 'value-2'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-3'}

{'key': 'key-3', 'value': 'value-3'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-4'}

{'key': 'key-4', 'value': 'value-4'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-5'}

{'key': 'key-5', 'value': 'value-5'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-6'}

{'key': 'key-6', 'value': 'value-6'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-7'}

{'key': 'key-7', 'value': 'value-7'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-8'}

{'key': 'key-8', 'value': 'value-8'}

Sending data:{'op': 'GET\_ONE', 'key': 'key-9'}

{'key': 'key-9', 'value': 'value-9'}

Done