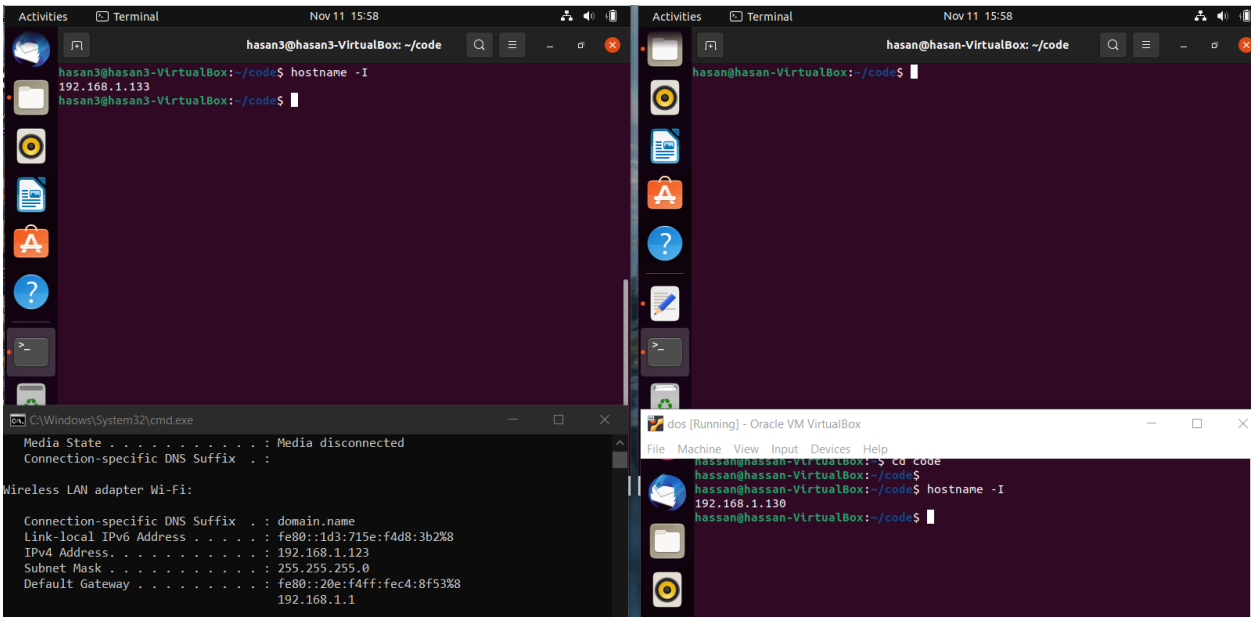
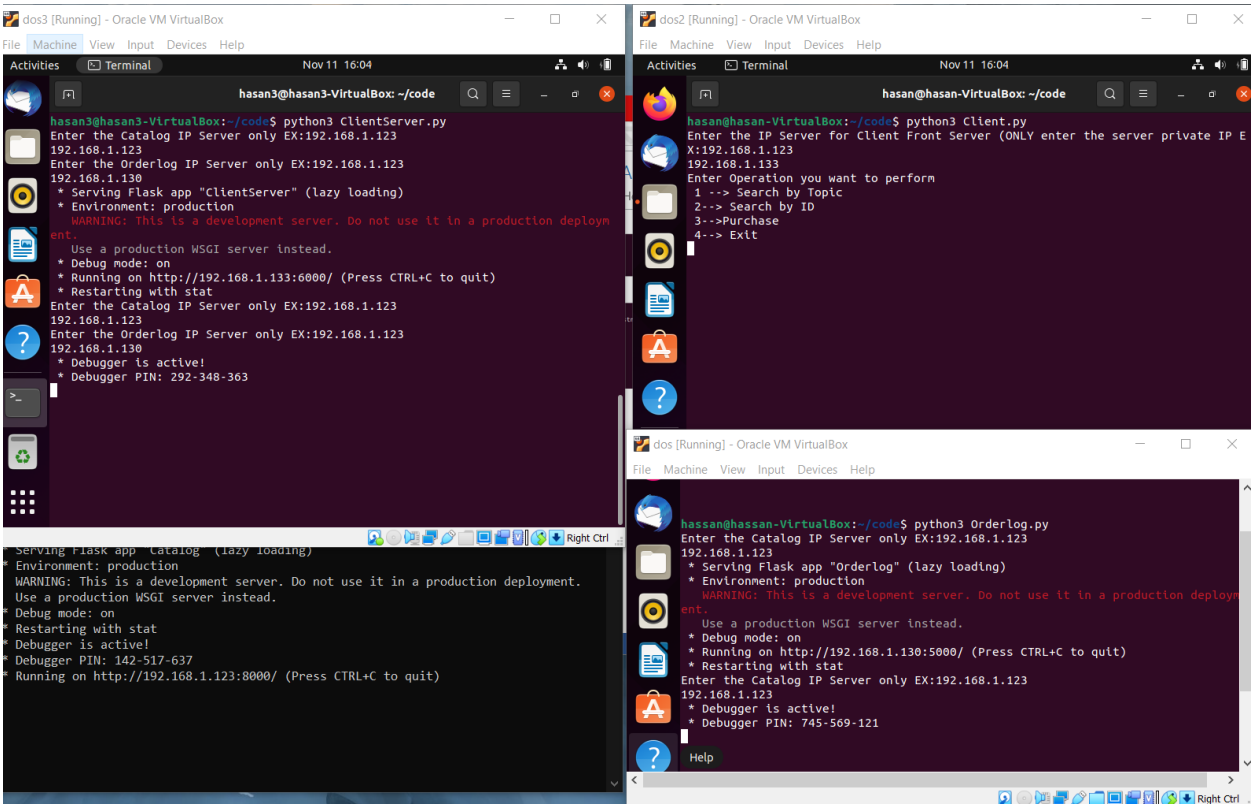
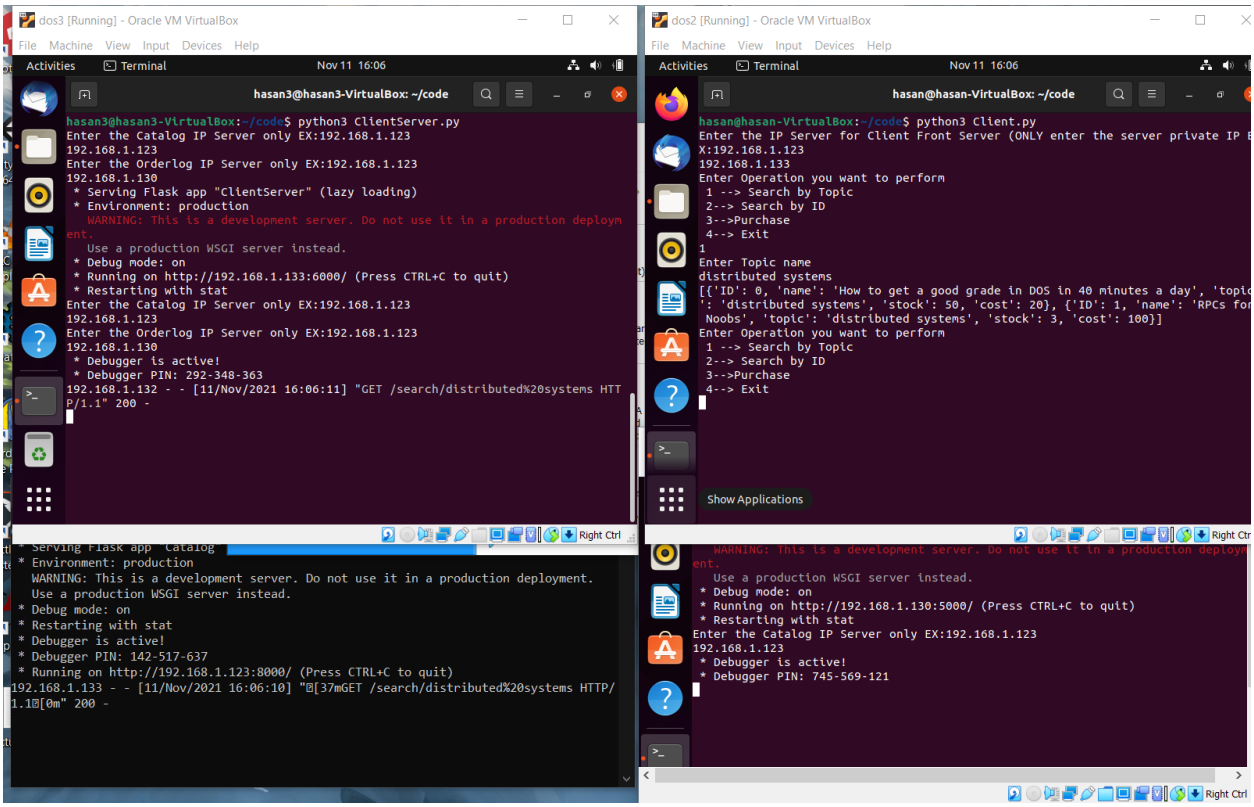
Hostname-I and IPCONFIG Outputs:



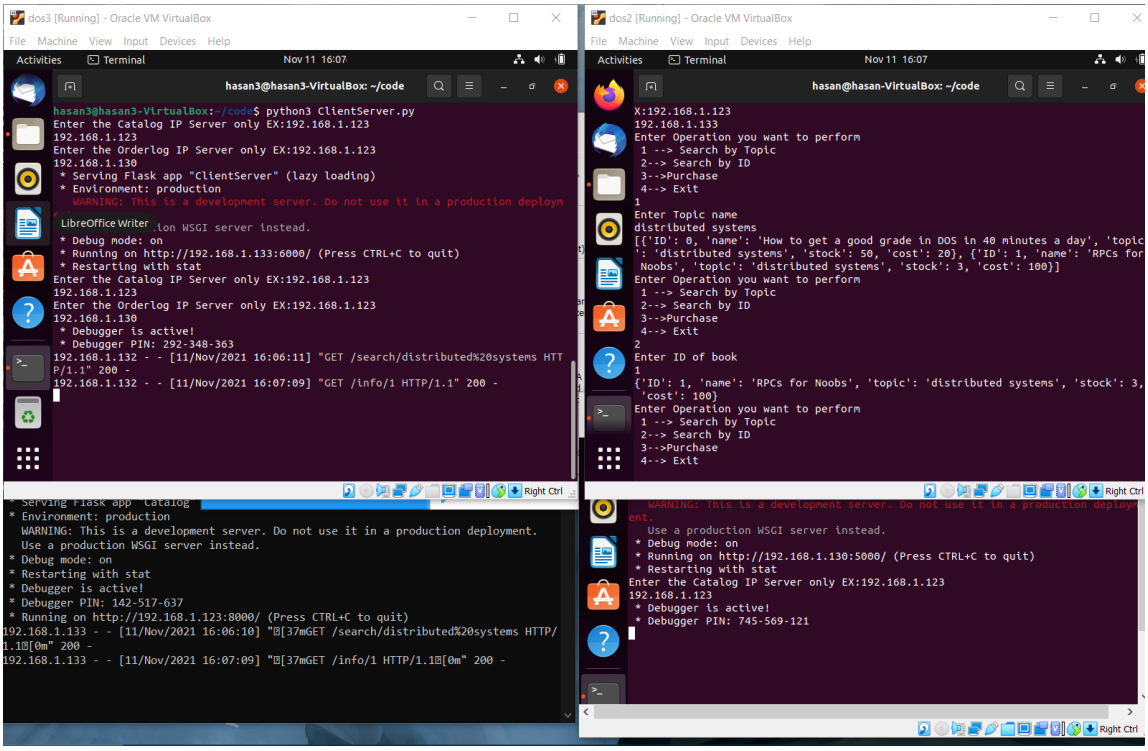
Running Servers:



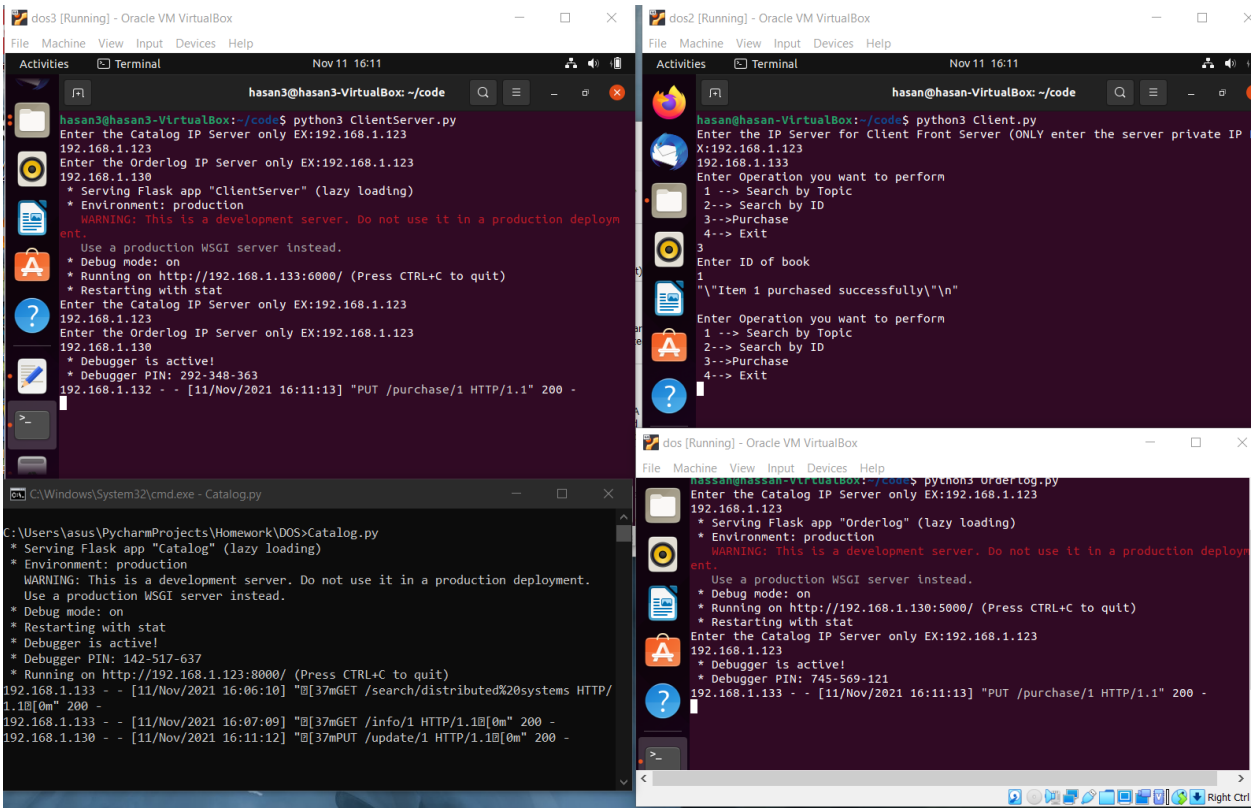
Search:


dos3 [Running] - Oracle VM VirtualBox
hasan3@hasan3-VirtualBox: ~/code
hasan3@hasan3-VirtualBox:~/code$ python3 ClientServer.py
Enter the Catalog IP Server only EX:192.168.1.123
192.168.1.123
Enter the Orderlog IP Server only EX:192.168.1.123
192.168.1.130
* Serving Flask app "ClientServer" (lazy loading)
* Environment: production
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: on
* Running on http://192.168.1.133:6000/ (Press CTRL+C to quit)
* Restarting with stat
Enter the Catalog IP Server only EX:192.168.1.123
192.168.1.123
Enter the Orderlog IP Server only EX:192.168.1.123
192.168.1.130
* Debugger is active!
* Debugger PIN: 292-348-363
192.168.1.132 - - [11/Nov/2021 16:06:11] "GET /search/distributed%20systems HTTP/1.1" 200 -
* Environment: production
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: on
* Restarting with stat
* Debugger is active!
* Debugger PIN: 142-517-637
* Running on http://192.168.1.123:8000/ (Press CTRL+C to quit)
192.168.1.133 - - [11/Nov/2021 16:06:10] "[37mGET /search/distributed%20systems HTTP/1.1[0m" 200 -
dos2 [Running] - Oracle VM VirtualBox
hasan@hasan-VirtualBox: ~/code
hasan@hasan-VirtualBox:~/code$ python3 Client.py
Enter the IP Server for Client Front Server (ONLY enter the server private IP
X:192.168.1.123
192.168.1.133
Enter Operation you want to perform
1 --> Search by Topic
2--> Search by ID
3-->Purchase
4--> Exit
1
Enter Topic name
distributed systems
[{'ID': 0, 'name': 'How to get a good grade in DOS in 40 minutes a day', 'topic': 'distributed systems', 'stock': 50, 'cost': 20}, {'ID': 1, 'name': 'RPCs for Noobs', 'topic': 'distributed systems', 'stock': 3, 'cost': 100}]
Enter Operation you want to perform
1 --> Search by Topic
2--> Search by ID
3-->Purchase
4--> Exit
Show Applications
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: on
* Running on http://192.168.1.130:5000/ (Press CTRL+C to quit)
* Restarting with stat
Enter the Catalog IP Server only EX:192.168.1.123
192.168.1.123
* Debugger is active!
* Debugger PIN: 745-569-121

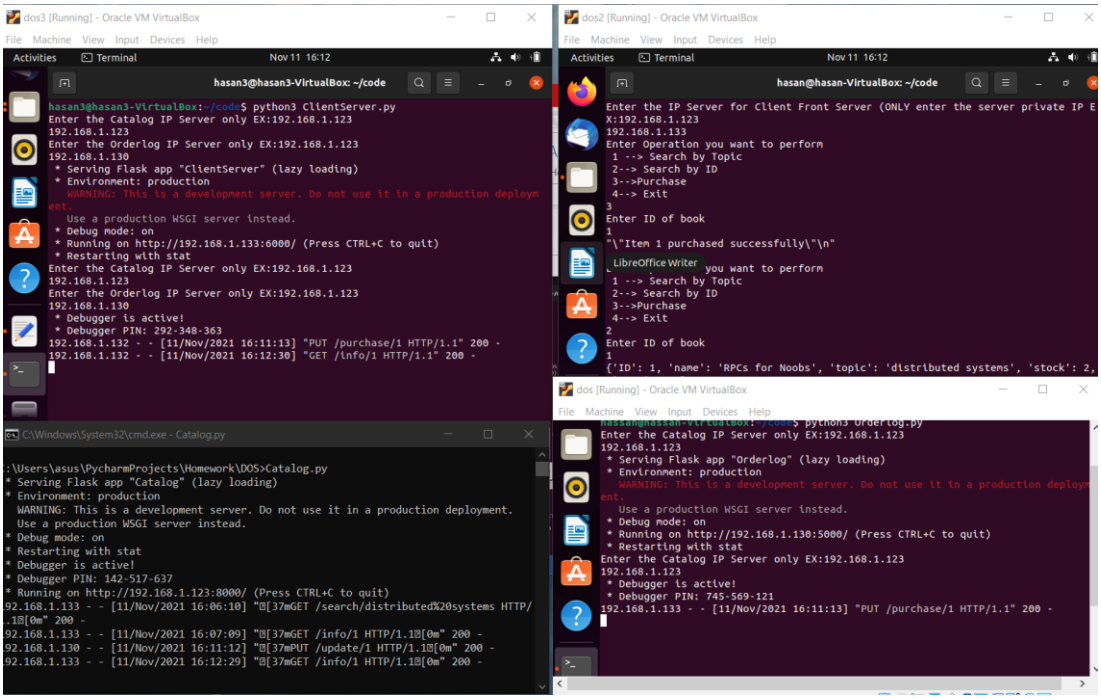
Info:


dos3 [Running] - Oracle VM VirtualBox
hasan3@hasan3-VirtualBox: ~/code
hasan3@hasan3-VirtualBox:~/code$ python3 ClientServer.py
Enter the Catalog IP Server only EX:192.168.1.123
192.168.1.123
Enter the Orderlog IP Server only EX:192.168.1.123
192.168.1.130
* Serving Flask app "ClientServer" (lazy loading)
* Environment: production
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: on
* Running on http://192.168.1.133:6000/ (Press CTRL+C to quit)
* Restarting with stat
Enter the Catalog IP Server only EX:192.168.1.123
192.168.1.123
Enter the Orderlog IP Server only EX:192.168.1.123
192.168.1.130
* Debugger is active!
* Debugger PIN: 292-348-363
192.168.1.132 - - [11/Nov/2021 16:06:11] "GET /search/distributed%20systems HTTP/1.1" 200 -
192.168.1.132 - - [11/Nov/2021 16:07:09] "GET /info/1 HTTP/1.1" 200 -
* Environment: production
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: on
* Restarting with stat
* Debugger is active!
* Debugger PIN: 142-517-637
* Running on http://192.168.1.123:8000/ (Press CTRL+C to quit)
192.168.1.133 - - [11/Nov/2021 16:06:10] "[37mGET /search/distributed%20systems HTTP/1.1[0m" 200 -
192.168.1.133 - - [11/Nov/2021 16:07:09] "[37mGET /info/1 HTTP/1.1[0m" 200 -
dos2 [Running] - Oracle VM VirtualBox
hasan@hasan-VirtualBox: ~/code
X:192.168.1.123
192.168.1.133
Enter Operation you want to perform
1 --> Search by Topic
2--> Search by ID
3-->Purchase
4--> Exit
1
Enter Topic name
distributed systems
[{'ID': 0, 'name': 'How to get a good grade in DOS in 40 minutes a day', 'topic': 'distributed systems', 'stock': 50, 'cost': 20}, {'ID': 1, 'name': 'RPCs for Noobs', 'topic': 'distributed systems', 'stock': 3, 'cost': 100}]
Enter Operation you want to perform
1 --> Search by Topic
2--> Search by ID
3-->Purchase
4--> Exit
2
Enter ID of book
1
{'ID': 1, 'name': 'RPCs for Noobs', 'topic': 'distributed systems', 'stock': 3, 'cost': 100}
Enter Operation you want to perform
1 --> Search by Topic
2--> Search by ID
3-->Purchase
4--> Exit
WARNING: This is a development server. Do not use it in a production deployment.
Use a production WSGI server instead.
* Debug mode: on
* Running on http://192.168.1.130:5000/ (Press CTRL+C to quit)
* Restarting with stat
Enter the Catalog IP Server only EX:192.168.1.123
192.168.1.123
* Debugger is active!
* Debugger PIN: 745-569-121

Purchase:



DB proof (Stock becomes 2):



Orderlog proof: