

EXPERIMENT : 3

Name : Sarvagya Singh

SAPID : 60009200030

AMPS :

```
/home/sarvy
Sarvy% wget https://devnull.crankuptheamps.com/releases/amps/5.3.3.30/AMPS-5.3.3.30-Release-Linux.tar.gz
```

```
/home/sarvy
Sarvy% wget https://devnull.crankuptheamps.com/releases/amps/5.3.3.30/AMPS-5.3.3.30-Release-Linux.tar.gz
--2023-04-11 19:20:05-- https://devnull.crankuptheamps.com/releases/amps/5.3.3.30/AMPS-5.3.3.30-Release-Linux.tar.gz
Resolving devnull.crankuptheamps.com (devnull.crankuptheamps.com)... 69.194.139.245
Connecting to devnull.crankuptheamps.com (devnull.crankuptheamps.com)|69.194.139.245|:443 ... connected.
HTTP request sent, awaiting response... 200 OK
Length: 39085457 (37M) [application/octet-stream]
Saving to: 'AMPS-5.3.3.30-Release-Linux.tar.gz'

AMPS-5.3.3.30-Release-Linux.ta 100%[=====>] 37.27M 826KB/s in 72s
2023-04-11 19:21:19 (527 KB/s) - 'AMPS-5.3.3.30-Release-Linux.tar.gz' saved [39085457/39085457]
```

```
minimal.xml
Sarvy% tar -zxf AMPS-5.3.3.30-Release-Linux.tar.gz
Sarvy%
```

```
Sarvy% cd ~
Sarvy% ./AMPS-5.3.3.30-Release-Linux/bin/ampServer --sample-config > minimal.xml
AMPS 5.3.3.30.759505.88ad88b - Copyright (c) 2006-2021 60East Technologies Inc.
(Built: 2021-10-04T23:30:48Z)
For all support questions: support@crankuptheamps.com
```

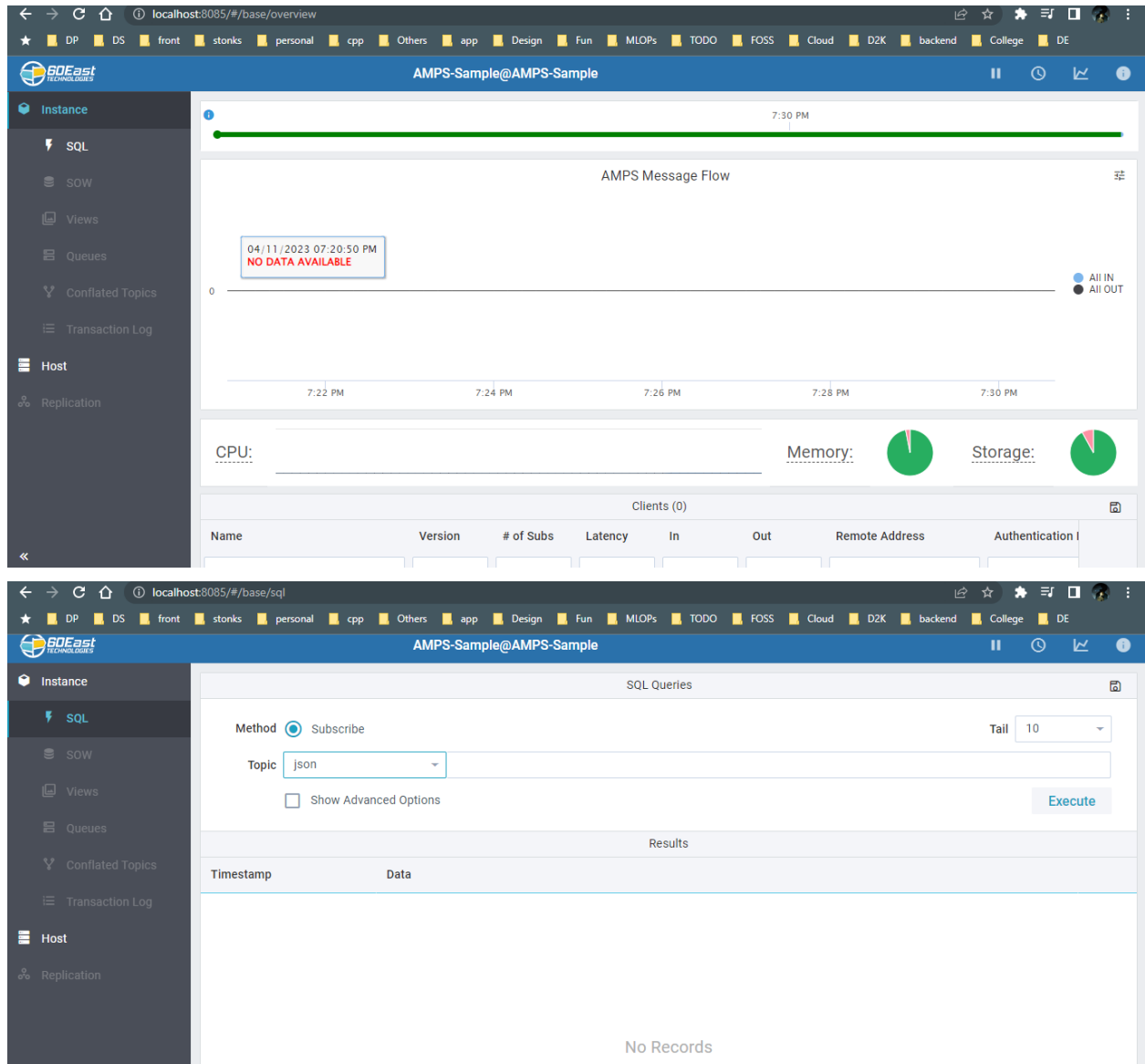
```
Sarvy% ./AMPS-5.3.3.30-Release-Linux/bin/ampServer minimal.xml
AMPS 5.3.3.30.759505.88ad88b - Copyright (c) 2006-2021 60East Technologies Inc.
(Built: 2021-10-04T23:30:48Z)
For all support questions: support@crankuptheamps.com

Warning: /proc/sys/fs/file-max is set less than the recommended value of 2097152

Warning: ulimit -n is set less than the recommended value of 32768

Warning: /sys/kernel/mm/transparent_hugepage/enabled is not set to the recommended value of [never] or the acceptable value of [madvise]

libnuma: Warning: /sys not mounted or invalid. Assuming one node: No such file or directory
2023-04-11T19:28:47.0745650+05:30 [1] info: 00-0015 AMPS initialization completed (1 seconds).
```



- If, at any point, you want to show the current directory in a File Explorer window, you can type `explorer.exe .` into the bash shell, and Windows will open that path in File Explorer. (This is also a convenient way to get the file path for things like uploading files from or saving files to the Linux environment.)

```
Activities Terminal Apr 12 11:16
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/AMPS-5.3.0.347-Release-Linux

Experiment\ 2.docx
Experiment\ 2.pdf
Experiment\ 4.pdf
Experiment\ no\ 1\ .docx
Experiment\ no\ 4\ Lambda\ Function\ \n\ python.docx
foodtruck(1).txt
foodtruck.txt
google-chrome-stable_current_and64.deb
hadoop
hadoop-3.3.4.tar.gz
Housing(1).csv
Housing.csv
in_use.zip
Iris(1)\ (1).csv
Iris(4).csv
Iris.csv
jdk-19.0.2
jdk-19_linux-x64_bin.tar.gz
kafka_2.13-3.3.1
kafka_2.13-3.3.1.tgz
Keyur\ Valtha
KeyurValtha_0009210044_DAOAexp01.pdf
Lab\ 5.docx
Lab\ 6.docx
MapReduce\ code\ Execution\ Steps.pdf
MapReduce\ Commands.docx
MicrosoftTeams-Image(1).jpeg
MicrosoftTeams-Image(2).jpeg
MicrosoftTeams-Image.jpeg
ML2-2.ipynb
ML_0009200045_Lab4\ (2).pdf
Naive\ Bayes\ 2(1).ipynb
Naive\ Bayes\ 2.ipynb
n_movies.csv
n_movies.csv.zip
OneDrive_1_6-3-2023.zip
PlayTennis.xlsx
Regression-from-Scratch.ipynb
SalesJan2009.csv
SalesJan2009.csv.zip
SF-\ Experiment\ 2\ Non-Preemptive\ CPU\ Scheduling\ algorithm(1).docx
SF-\ Experiment\ 2\ Non-Preemptive\ CPU\ Scheduling\ algorithm.docx
Social_Network_Ads.csv
spark
spark-3.3.2-bin-hadoop3.tgz
TURBOC3.zip
Untitled13.ipynb
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads$ cd AMPS-5.3.0.347-Release-Linux
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/AMPS-5.3.0.347-Release-Linux$ ./bin/ampServer ./config/sample.xml
AMPS 5.3.0.347.163615.dce1f0 - Copyright (c) 2006-2019 60East Technologies Inc.
(Built: 2023-02-28T21:12:00Z)
For all support questions: support@crankuptheamps.com

2023-04-12T11:16:38.9992430+05:30 [1] info: 00-0015 AMPS Initialization completed (0 seconds).
```

```
Activities Terminal Apr 12 11:19
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples

KeyurValtha_0009210044_DAOAexp01.pdf
Lab\ 5.docx
Lab\ 6.docx
MapReduce\ code\ Execution\ Steps.pdf
MapReduce\ Commands.docx
MicrosoftTeams-Image(1).jpeg
MicrosoftTeams-Image(2).jpeg
MicrosoftTeams-Image.jpeg
ML2-2.ipynb
ML_0009200045_Lab4\ (2).pdf
Naive\ Bayes\ 2(1).ipynb
Naive\ Bayes\ 2.ipynb
n_movies.csv
n_movies.csv.zip
OneDrive_1_6-3-2023.zip
PlayTennis.xlsx
Regression-from-Scratch.ipynb
SalesJan2009.csv
SalesJan2009.csv.zip
SF-\ Experiment\ 2\ Non-Preemptive\ CPU\ Scheduling\ algorithm(1).docx
SF-\ Experiment\ 2\ Non-Preemptive\ CPU\ Scheduling\ algorithm.docx
Social_Network_Ads.csv
spark
spark-3.3.2-bin-hadoop3.tgz
TURBOC3.zip
Untitled13.ipynb
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads$ cd amps-python-client-5.3.3.4
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4$ dlr
amp build docs include LICENSE README.txt setup_amps.py src
amps_python_client.egg-info dist HISTORY index.html README.nd samples setup.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4$ cd samples/
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsoleSubscriber.py
^CTraceback (most recent call last):
  File "/home/cseds-student/Downloads/amps-python-client-5.3.3.4/samples/AMPSConsoleSubscriber.py", line 57, in <module>
    for msg in client.subscribe(topic="messages", timeout=5000):
KeyboardInterrupt

cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsoleSubscriber.py &
[1] 12021
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python AMPSConsolePublisher.py &
[2] 12026
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ Command 'python' not found, did you mean:
command 'python3' from deb python3
command 'python' from deb python-is-python3
python A^C
[2]- Exit 127
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[2] 12028
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[3] 12030
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ { "hi" : "Hello, world!"}
[2] Done
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$
```

```
Activities Terminal Apr 12 11:20
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples

cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/AMPS-5.3.0.347-Release-Linux
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples

MapReduce\ code\ Execution\ Steps.pdf
MapReduce\ Commands.docx
MicrosoftTeams-lmage(1).jpeg
MicrosoftTeams-lmage(2).jpeg
MicrosoftTeams-lmage.jpeg
ML2-2.ipynb
ML_600920045_Lab4\ (2).pdf
Naive\ Bayes\ 2(1).ipynb
Naive\ Bayes\ 2.ipynb
n_movies.csv
n_movies.csv.zip
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spark
spark-3.3.2-bin-hadoop3.tgz
TURBOC3.zip
Untitled3.ipynb
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads$ cd amps-python-client-5.3.3.4
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4$ dir
.          build docs  include  LICENSE  README.txt  setup.amps.py  src
amps_python_client.egg-info  dist  HISTORY  index.html  README.md  samples  setup.py
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4$ cd samples/
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsoleSubscriber.py
^CTraceback (most recent call last):
  File "/home/cseds-student/Downloads/amps-python-client-5.3.3.4/samples/AMPSConsoleSubscriber.py", line 57, in <module>
    for msg in client.subscribe(topic='messages', timeout=5000):
KeyboardInterrupt

cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsoleSubscriber.py &
[1] 12021
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python AMPSConsolePublisher.py &
[2] 12026
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ Command 'python' not found, did you mean:
  command 'python3' from deb python3
  command 'python' from deb python-is-python3
python A^C
[2]-  Exit 127      python AMPSConsolePublisher.py
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[2] 12028
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[3] 12030
[2]  Done          python3 AMPSConsolePublisher.py
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ { "hl" : "Hello, world!" }
python3 AMPSConsolePublisher.py &
[4] 12045
[3]  Done          python3 AMPSConsolePublisher.py
cseds-student@csestudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$
```

```
Activities Terminal Apr 12 11:21
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples

cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ cd samples/
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsoleSubscriber.py
^CTraceback (most recent call last):
  File "/home/cseds-student/Downloads/amps-python-client-5.3.3.4/samples/AMPSConsoleSubscriber.py", line 57, in <module>
    for msg in client.subscribe(topic="messages", timeout=5000):
KeyboardInterrupt

cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsoleSubscriber.py &
[1] 12021
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[2] 12026
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ Command 'python' not found, did you mean:
command 'python3' from deb python3
command 'python' from deb python-is-python3

python A^C
[2]+ Exit 127 python AMPSConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[2] 12028
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[3] 12030
[2] Done python3 AMPSConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ { "hi": "Hello, world!" }
python3 AMPSSOWConsolePublisher.py &
[4] 12048
[3] Done python3 AMPSConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSSOWConsolePublisher.py &
[4]+ Done python3 AMPSSOWConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSSOWConsolePublisher.py &
[2] 12064
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSSOWandSubscribeConsoleSubscriber.py &
[3] 12081
[2] Done python3 AMPSSOWConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ Command 'python' not found, did you mean:
command 'python3' from deb python3
command 'python' from deb python-is-python3
python3 AMPSSOWandSubscribeConsoleSubscriber.py &
[4] 12083
[3] Exit 127 python AMPSSOWandSubscribeConsoleSubscriber.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ \Receiving messages from the SOW.
(sow): b'{"text":"Hello, world!", "messageNumber": 0 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 1 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 2 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 3 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 4 }'
(sow): b'{"text":"This is new information", "messageNumber":5 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 6 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 7 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 8 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 9 }'
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$
```

```
Activities Terminal Apr 12 11:21
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples

cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples
command 'python' from deb python-is-python3

python A^C
[2]+ Exit 127 python AMPSConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[2] 12028
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSConsolePublisher.py &
[3] 12030
[2] Done python3 AMPSConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ { "hi": "Hello, world!" }
python3 AMPSSOWConsolePublisher.py &
[4] 12048
[3] Done python3 AMPSConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSSOWConsolePublisher.py &
[4]+ Done python3 AMPSSOWConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSSOWConsolePublisher.py &
[2] 12064
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ python3 AMPSSOWandSubscribeConsoleSubscriber.py &
[3] 12081
[2] Done python3 AMPSSOWConsolePublisher.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ Command 'python' not found, did you mean:
command 'python3' from deb python3
command 'python' from deb python-is-python3
python3 AMPSSOWandSubscribeConsoleSubscriber.py &
[4] 12083
[3] Exit 127 python AMPSSOWandSubscribeConsoleSubscriber.py
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ \Receiving messages from the SOW.
(sow): b'{"text":"Hello, world!", "messageNumber": 0 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 1 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 2 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 3 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 4 }'
(sow): b'{"text":"This is new information", "messageNumber":5 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 6 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 7 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 8 }'
(sow): b'{"text":"Hello, world!", "messageNumber": 9 }'
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$
niles$ python3 AMPSSOWConsolePublisher.py &
[5] 12103
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$ (publish): b'{"text":"Hello, world!", "messageNumber": 0 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 1 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 2 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 3 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 4 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 5 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 6 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 7 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 8 }'
(publish): b'{"text":"Hello, world!", "messageNumber": 9 }'
cseds-student@csedsstudent-HP-ProOne-600-G6-22-All-in-One-PC: ~/Downloads/amps-python-client-5.3.3.4/samples$
```

REFERENCES :
<https://www.crankuptheamps.com/blog/posts/2021/10/11/amps-on-windows/#>
<https://www.crankuptheamps.com/evaluate/>