

## IA2 - Exercícios Conda

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### Ambientes criados

conda create -n ambiente

conda create -n exemplo

conda create -n teste

```
(base) gykimura@hub-G3-3590:~$ conda env list
# conda environments:
#
base                *  /home/gykimura/miniconda3
ambiente            /home/gykimura/miniconda3/envs/ambiente
exemplo             /home/gykimura/miniconda3/envs/exemplo
teste               /home/gykimura/miniconda3/envs/teste
```

### Pacotes do ambiente AMBIENTE (Scipy, Sqlite)

conda activate ambiente

conda install scipy sqlite

conda list

```
(ambiente) gykimura@hub-G3-3590:~/Documentos/conda$ conda list
# packages in environment at /home/gykimura/miniconda3/envs/ambiente:
#
# Name                          Version                      Build      Channel
_libgcc_mutex                   0.1                          main
blas                            1.0                          mkl
ca-certificates                 2019.8.28                     0
certifi                         2019.9.11                     py37_0
intel-openmp                    2019.4                         243
libedit                         3.1.20181209                 hc058e9b_0
libffi                          3.2.1                         hd88cf55_4
libgcc-ng                       9.1.0                         hdf63c60_0
libgfortran-ng                  7.3.0                         hdf63c60_0
libstdcxx-ng                    9.1.0                         hdf63c60_0
mkl                             2019.4                         243
mkl-service                     2.3.0                         py37he904b0f_0
mkl_fft                         1.0.14                       py37ha843d7b_0
mkl_random                      1.1.0                         py37hd6b4f25_0
ncurses                         6.1                           he6710b0_1
numpy                           1.17.2                       py37haad9e8e_0
numpy-base                      1.17.2                       py37hde5b4d6_0
openssl                         1.1.1d                        h7b6447c_2
pip                             19.2.3                       py37_0
python                          3.7.4                         h265db76_1
readline                        7.0                           h7b6447c_5
scipy                           1.3.1                         py37h7c811a0_0
setuptools                      41.2.0                       py37_0
six                             1.12.0                       py37_0
sqlite                          3.29.0                       h7b6447c_0
tk                              8.6.8                         hbc83047_0
wheel                          0.33.6                       py37_0
xz                              5.2.4                         h14c3975_4
zlib                            1.2.11                       h7b6447c_3
```

**Pacotes do ambiente TESTE (Numpy, Matplotlib)**

conda activate teste

conda install numpy matplotlib

conda list

#	Name	Version	Build	Channel
	_libgcc_mutex	0.1	main	
	blas	1.0	mkl	
	ca-certificates	2019.8.28	0	
	certifi	2019.9.11	py37_0	
	cycler	0.10.0	py37_0	
	dbus	1.13.6	h746ee38_0	
	expat	2.2.6	he6710b0_0	
	fontconfig	2.13.0	h9420a91_0	
	freetype	2.9.1	h8a8886c_1	
	glib	2.56.2	hd408876_0	
	gst-plugins-base	1.14.0	hb8d80ab_1	
	gstreamer	1.14.0	hb453b48_1	
	icu	58.2	h9c2bf20_1	
	intel-openmp	2019.4	243	
	jpeg	9b	h024ee3a_2	
	kiwisolver	1.1.0	py37he6710b0_0	
	libedit	3.1.20181209	hc058e9b_0	
	libffi	3.2.1	hd88cf55_4	
	libgcc-ng	9.1.0	hdf63c60_0	
	libgfortran-ng	7.3.0	hdf63c60_0	
	libpng	1.6.37	hbc83047_0	
	libstdcxx-ng	9.1.0	hdf63c60_0	
	libuuid	1.0.3	h1bed415_2	
	libxcb	1.13	h1bed415_1	
	libxml2	2.9.9	hea5a465_1	
	matplotlib	3.1.1	py37h5429711_0	
	mkl	2019.4	243	
	mkl-service	2.3.0	py37he904b0f_0	
	mkl_fft	1.0.14	py37ha843d7b_0	
	mkl_random	1.1.0	py37hd6b4f25_0	
	ncurses	6.1	he6710b0_1	
	numpy	1.17.2	py37haad9e8e_0	
	numpy-base	1.17.2	py37hde5b4d6_0	
	openssl	1.1.1d	h7b6447c_2	
	pcre	8.43	he6710b0_0	
	pip	19.2.3	py37_0	
	pyparsing	2.4.2	py_0	
	pyqt	5.9.2	py37h05f1152_2	
	python	3.7.4	h265db76_1	
	python-dateutil	2.8.0	py37_0	
	pytz	2019.2	py_0	
	qt	5.9.7	h5867ecd_1	
	readline	7.0	h7b6447c_5	
	setuptools	41.2.0	py37_0	
	sip	4.19.8	py37hf484d3e_0	
	six	1.12.0	py37_0	
	sqlite	3.29.0	h7b6447c_0	
	tk	8.6.8	hbc83047_0	
	tornado	6.0.3	py37h7b6447c_0	
	wheel	0.33.6	py37_0	
	xz	5.2.4	h14c3975_4	
	zlib	1.2.11	h7b6447c_3	

## Pacotes do ambiente EXEMPLO (Atom, Python versão 2.7.16)

conda create -n exemplo

conda activate exemplo

conda install atom

conda install python=2.7.16

conda list

```
(exemplo) gykimura@hub-G3-3590:~/Documentos/conda$ conda list
# packages in environment at /home/gykimura/miniconda3/envs/exemplo:
#
# Name                                Version                                Build      Channel
_libgcc_mutex                         0.1                                    main
atom                                  0.4.3                                py27hfd86e86_0
ca-certificates                       2019.8.28                             0
certifi                               2019.9.11                             py27_0
future                                0.17.1                                py27_0
libedit                               3.1.20181209                          hc058e9b_0
libffi                                 3.2.1                                hd88cf55_4
libgcc-ng                             9.1.0                                hdf63c60_0
libstdcxx-ng                          9.1.0                                hdf63c60_0
ncurses                               6.1                                  he6710b0_1
openssl                               1.1.1d                               h7b6447c_2
pip                                   19.2.3                                py27_0
python                                2.7.16                               h9bab390_7
readline                              7.0                                  h7b6447c_5
setuptools                             41.2.0                                py27_0
sqlite                                 3.29.0                               h7b6447c_0
tk                                     8.6.8                                hbc83047_0
wheel                                 0.33.6                               py27_0
zlib                                   1.2.11                               h7b6447c_3
(exemplo) gykimura@hub-G3-3590:~/Documentos/conda$
```

## 5.

conda-env remove -n ambiente

conda-env list

```
(base) gykimura@hub-G3-3590:~/Documentos/conda$ conda-env list
# conda environments:
#
base          *  /home/gykimura/miniconda3
exemplo       /home/gykimura/miniconda3/envs/exemplo
teste        /home/gykimura/miniconda3/envs/teste
```



6. O pacote Rstudio está presente no canal conda-forge.

conda search Rstudio --channel conda-forge

```
(base) gykimura@hub-G3-3590:~$ conda search Rstudio --channel conda-forge
Loading channels: done
# Name                               Version           Build    Channel
rstudio                             1.0.44            0        pkgs/r
rstudio                             1.0.136           1        pkgs/r
rstudio                             1.0.153           1        pkgs/r
rstudio                             1.1.383           h2c9cdda_2 pkgs/r
rstudio                             1.1.456           h6bb024c_1 pkgs/r
```

7. As dependências para instalar o python podem ser visualizadas na imagem abaixo.

conda install python

```
- python

The following NEW packages will be INSTALLED:

 _libgcc_mutex            pkgs/main/linux-64::_libgcc_mutex-0.1-main
 ca-certificates          pkgs/main/linux-64::ca-certificates-2019.8.28-0
 certifi                  pkgs/main/linux-64::certifi-2019.9.11-py37_0
 libedit                  pkgs/main/linux-64::libedit-3.1.20181209-hc058e9b_0
 libffi                   pkgs/main/linux-64::libffi-3.2.1-hd88cf55_4
 libgcc-ng                pkgs/main/linux-64::libgcc-ng-9.1.0-hdf63c60_0
 libstdcxx-ng             pkgs/main/linux-64::libstdcxx-ng-9.1.0-hdf63c60_0
 ncurses                  pkgs/main/linux-64::ncurses-6.1-he6710b0_1
 openssl                  pkgs/main/linux-64::openssl-1.1.1d-h7b6447c_2
 pip                      pkgs/main/linux-64::pip-19.2.3-py37_0
 python                   pkgs/main/linux-64::python-3.7.4-h265db76_1
 readline                 pkgs/main/linux-64::readline-7.0-h7b6447c_5
 setuptools               pkgs/main/linux-64::setuptools-41.2.0-py37_0
 sqlite                   pkgs/main/linux-64::sqlite-3.29.0-h7b6447c_0
 tk                        pkgs/main/linux-64::tk-8.6.8-hbc83047_0
 wheel                    pkgs/main/linux-64::wheel-0.33.6-py37_0
 xz                       pkgs/main/linux-64::xz-5.2.4-h14c3975_4
 zlib                     pkgs/main/linux-64::zlib-1.2.11-h7b6447c_3
```

8.

pip install pandas

```
(base) gykimura@hub-G3-3590:~$ conda activate teste
(teste) gykimura@hub-G3-3590:~$ pip install pandas
Collecting pandas
  Using cached https://files.pythonhosted.org/packages/7e/ab/ea76361f9d3e732e114adcd801d2820d5319c23d0ac5482fa3b412db217e/pandas-0.25.1-cp37-cp37m-manylinux1_x86_64.whl
Requirement already satisfied: numpy>=1.13.3 in ./miniconda3/envs/teste/lib/python3.7/site-packages (from pandas) (1.17.2)
Requirement already satisfied: pytz>=2017.2 in ./miniconda3/envs/teste/lib/python3.7/site-packages (from pandas) (2019.2)
Requirement already satisfied: python-dateutil>=2.6.1 in ./miniconda3/envs/teste/lib/python3.7/site-packages (from pandas) (2.8.0)
Requirement already satisfied: six>=1.5 in ./miniconda3/envs/teste/lib/python3.7/site-packages (from python-dateutil>=2.6.1->pandas) (1.12.0)
Installing collected packages: pandas
Successfully installed pandas-0.25.1
```

9.

No python versão 2, **print** é uma palavra reservada, e portanto o que deve ser impresso pode ser colocado logo em seguida. Já no python versão 3, **print** é uma função e por isso, o texto a ser impresso deve enviado como parâmetro, entre parênteses. `print ("teste")`

10.

**Ambiente exportado**

`conda-env export -n ambiente -f amb-exemplo.yml`

11.

**Ambiente importado**

```
(base) gykimura@hub-G3-3590:~$ conda env list
# conda environments:
#
base                *  /home/gykimura/miniconda3
ambiente            /home/gykimura/miniconda3/envs/ambiente
exemplo             /home/gykimura/miniconda3/envs/exemplo
teste               /home/gykimura/miniconda3/envs/teste
teste00             /home/gykimura/miniconda3/envs/teste00
```