Wydział EAIiIB Kierunek AiR Rok III	Marcin Brzózka nr albumu 405499 grupa 2
Analiza i Bazy Danych	
Temat: Lab1. Przygotowanie środowiska do pracy w DS	

Zadanie 1

Zainstaluj wirtualne środowisko conda na systemie Ubuntu.

1. Stworzenie środowiska wirtualnego, którego nazwa to imięnazwisko.

Pierw zaktualizowałem wersję condy oraz wybrałem wersję pythona do stworzenia wirtualnego środowiska. Następnie:

```
(base) C:\Users\Laptopek>conda create -n marcinbrzozka python=3.9.0 anaconda
Collecting package metadata (current_repodata.json): done
Solving environment: failed with repodata from current_repodata.json, will retry with next repodata source.
Collecting package metadata (repodata.json): done
Solving environment: /
Warning: 2 possible package resolutions (only showing differing packages):
  - defaults/win-64::llvmlite-0.36.0-py39h34b8924_4, defaults/win-64::numba-0.53.0-py39hf11a4ad_0, defaults/win-64::
y-1.23.1-py39h7a0a035_0, defaults/win-64::numpy-base-1.23.1-py39hca35cd5_0
  - defaults/win-64::llvmlite-0.38.0-py39h23ce68f_0, defaults/win-64::numba-0.55.1-py39hf11a4ad_0, defaults/win-64::
y-1.21.5-py39h7a0a035_3, defaults/win-64::numpy-base-1.21.5-py39hca35cd5_3done

## Package Plan ##

  environment location: D:\Programy\Anaconda\envs\marcinbrzozka

  added / updated specs:
    - anaconda
    - python=3.9.0


The following packages will be downloaded:

    package                    |            build
    ---------------------------|-----------------
    _anaconda_depends-2021.11  |           py39_0           7 KB
    anaconda-custom            |           py39_1           4 KB
    anaconda-client-1.11.0     |   py39haa95532_0         165 KB
    anaconda-project-0.11.1    |   py39haa95532_0         511 KB
    anyio-3.5.0                |   py39haa95532_0         167 KB
    appdirs-1.4.4              |     pyhd3eb1b0_0          12 KB
    argh-0.26.2                |   py39haa95532_0          36 KB
    argon2-cffi-21.3.0         |     pyhd3eb1b0_0          15 KB
    argon2-cffi-bindings-21.2.0|   py39h2bbff1b_0          36 KB
    arrow-1.2.2                |     pyhd3eb1b0_0          92 KB
    asn1crypto-1.5.1           |   py39haa95532_0         171 KB
    astroid-2.11.7             |   py39haa95532_0         341 KB
    astropy-5.1                |   py39h080aedc_0         6.4 MB
    attrs-21.4.0               |     pyhd3eb1b0_0          51 KB
    autopep8-1.6.0             |     pyhd3eb1b0_1          43 KB
```

```
joblib-1.1.0          | 211 KB   | ################################################################################ | 100%
sqlite-3.39.3         | 804 KB   | ################################################################################ | 100%
networkx-2.8.4        | 2.2 MB   | ################################################################################ | 100%
conda-22.9.0          | 888 KB   | ################################################################################ | 100%
libiconv-1.16         | 651 KB   | ################################################################################ | 100%
Preparing transaction: done
Verifying transaction: done
Executing transaction: |

    Windows 64-bit packages of scikit-learn can be accelerated using scikit-learn-intelex.
    More details are available here: https://intel.github.io/scikit-learn-intelex

    For example:

        $ conda install scikit-learn-intelex
        $ python -m sklearnex my_application.py


done
#
# To activate this environment, use
#
#     $ conda activate marcinbrzozka
#
# To deactivate an active environment, use
#
#     $ conda deactivate

Retrieving notices: ...working... done

(base) C:\Users\Laptopek>
(base) C:\Users\Laptopek>
(base) C:\Users\Laptopek>y
'y' is not recognized as an internal or external command,
operable program or batch file.

(base) C:\Users\Laptopek>afafay
'afafay' is not recognized as an internal or external command,
operable program or batch file.

(base) C:\Users\Laptopek>S
```

Rys. 1. Instalacja wirtualnego środowiska conda

2. Aktywacja środowiska wirtualnego.


```
(base) C:\Users\Laptopek>conda info -e
# conda environments:
#
base                  *  D:\Programy\Anaconda
marcinbrzozka            D:\Programy\Anaconda\envs\marcinbrzozka


(base) C:\Users\Laptopek>activate marcinbrzozka

(marcinbrzozka) C:\Users\Laptopek>
```

Rys. 2. Aktywacja środowiska wirtualnego

3. Instalacja pakietów Python z pliku requirements.txt.


```
(marcinbrzozka) C:\Users\Laptopek>pip install -r D:\Programowanie\AiBD\requirements.txt
Requirement already satisfied: ipython>=4.1.2 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\P
rogramowanie\AiBD\requirements.txt (line 1)) (7.31.1)
Requirement already satisfied: jupyter>=1.0.0 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\P
rogramowanie\AiBD\requirements.txt (line 2)) (1.0.0)
Requirement already satisfied: matplotlib>=1.5.1 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D
:\Programowanie\AiBD\requirements.txt (line 3)) (3.5.2)
Requirement already satisfied: notebook>=4.1.0 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\
Programowanie\AiBD\requirements.txt (line 4)) (6.4.12)
Requirement already satisfied: numpy>=1.10.4 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\Pr
ogramowanie\AiBD\requirements.txt (line 5)) (1.23.1)
Requirement already satisfied: pandas>=0.17.1 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\P
rogramowanie\AiBD\requirements.txt (line 6)) (1.4.4)
Requirement already satisfied: seaborn>=0.7.0 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\P
rogramowanie\AiBD\requirements.txt (line 7)) (0.11.2)
Collecting q>=2.6
  Downloading q-2.7-py2.py3-none-any.whl (10 kB)
Collecting python-dotenv>=0.5.0
  Downloading python_dotenv-0.21.0-py3-none-any.whl (18 kB)
Collecting watermark>=1.3.0
  Downloading watermark-2.3.1-py2.py3-none-any.whl (7.2 kB)
Requirement already satisfied: pytest>=2.9.2 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\Pr
ogramowanie\AiBD\requirements.txt (line 11)) (7.1.2)
Requirement already satisfied: scikit-learn in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from -r D:\Pro
gramowanie\AiBD\requirements.txt (line 12)) (1.0.2)
rom ipywidgets->jupyter>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (1.0.0)
Requirement already satisfied: widgetsnbextension~=3.5.0 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages
rom ipywidgets->jupyter>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (3.5.2)
Requirement already satisfied: qtpy in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from qtconsole->jupy
r>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (2.2.0)
Requirement already satisfied: pyrsistent!=0.17.0,!=0.17.1,!=0.17.2,>=0.14.0 in d:\programy\anaconda\envs\marcinbrzozk
lib\site-packages (from jsonschema>=2.6->nbformat->notebook>=4.1.0->-r D:\Programowanie\AiBD\requirements.txt (line 4)
(0.18.0)
Requirement already satisfied: cffi>=1.0.1 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from argon2-c
i-bindings->argon2-cffi->notebook>=4.1.0->-r D:\Programowanie\AiBD\requirements.txt (line 4)) (1.15.1)
Requirement already satisfied: soupsieve>1.2 in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from beauti
lsoup4->nbconvert->jupyter>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (2.3.1)
Requirement already satisfied: webencodings in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from bleach-
pconvert->jupyter>=1.0.0->-r D:\Programowanie\AiBD\requirements.txt (line 2)) (0.5.1)
Requirement already satisfied: pycparser in d:\programy\anaconda\envs\marcinbrzozka\lib\site-packages (from cffi>=1.0.
>argon2-cffi-bindings->argon2-cffi->notebook>=4.1.0->-r D:\Programowanie\AiBD\requirements.txt (line 4)) (2.21)
Installing collected packages: q, python-dotenv, watermark
Successfully installed python-dotenv-0.21.0 q-2.7 watermark-2.3.1
```

Rys. 3. Instalacja pakietów Python z pliku requirements.txt

4. Wylistowanie zainstalowanych pakietów.
5. Zrobienie zrzutu ekranu i dodanie do kursu na upel.agh.edu.pl

```
(marcinbrzozka) C:\Users\Laptopek>pip list
Package                                 Version
--------------------------------------- ------------------
alabaster                               0.7.12
anaconda-client                         1.11.0
anaconda-project                        0.11.1
anyio                                   3.5.0
appdirs                                 1.4.4
argh                                    0.26.2
argon2-cffi                             21.3.0
argon2-cffi-bindings                    21.2.0
arrow                                   1.2.2
asn1crypto                              1.5.1
astroid                                 2.11.7
astropy                                 5.1
async-generator                         1.10
atomicwrites                            1.4.0
attrs                                   21.4.0
autopep8                                1.6.0
Babel                                   2.9.1
backcall                                0.2.0
backports.shutil-get-terminal-size      1.0.0
bcrypt                                  3.2.0
beautifulsoup4                          4.11.1
binaryornot                             0.4.4
bitarray                                2.5.1
bkcharts                                0.2
black                                   22.6.0
bleach                                  4.1.0
bokeh                                   2.4.3
boto                                    2.49.0
Bottleneck                              1.3.5
brotlipy                                0.7.0
cached-property                         1.5.2
certifi                                 2022.9.24
cffi                                    1.15.1
chardet                                 4.0.0
charset-normalizer                      2.0.4
click                                   8.0.4
cloudpickle                             2.0.0
clyent                                  1.2.2
colorama                                0.4.5
```

```
comtypes                                1.1.10
conda                                   22.9.0
conda-content-trust                     0.1.3
conda-pack                              0.6.0
conda-package-handling                  1.9.0
conda-token                             0.4.0
contextlib2                             21.6.0
cookiecutter                            1.7.3
cryptography                            37.0.1
cycler                                  0.11.0
Cython                                  0.29.32
cytoolz                                 0.11.0
daal4py                                 2021.6.0
dask                                    2022.7.0
debugpy                                 1.5.1
decorator                               5.1.1
defusedxml                              0.7.1
diff-match-patch                        20200713
dill                                    0.3.4
distributed                             2022.7.0
docutils                                0.18.1
entrypoints                             0.4
et-xmlfile                              1.1.0
fastcache                               1.1.0
fastjsonschema                          2.16.2
filelock                                3.6.0
flake8                                  4.0.1
Flask                                   2.1.3
fonttools                               4.25.0
fsspec                                  2022.7.1
gevent                                  21.8.0
glob2                                   0.7
greenlet                                1.1.1
h5py                                    3.7.0
HeapDict                                1.0.1
html5lib                                1.1
idna                                    3.3
imagecodecs                             2021.8.26
imageio                                 2.19.3
imagesize                               1.4.1
importlib-metadata                      4.11.3
inflection                              0.5.1
```

iniconfig	1.1.1	mock	4.0.3
intervaltree	3.1.0	more-itertools	8.12.0
ipykernel	6.15.2	mpmath	1.2.1
ipython	7.31.1	msgpack	1.0.3
ipython-genutils	0.2.0	multipledispatch	0.6.0
ipywidgets	7.6.5	munkres	1.1.4
isort	5.9.3	mypy-extensions	0.4.3
itsdangerous	2.0.1	nbclassic	0.3.5
jdcal	1.4.1	nbclient	0.5.13
jedi	0.18.1	nbconvert	6.4.4
jellyfish	0.9.0	nbformat	5.5.0
Jinja2	3.0.3	nest-asyncio	1.5.5
jinja2-time	0.2.0	networkx	2.8.4
joblib	1.1.0	nltk	3.7
json5	0.9.6	nose	1.3.7
jsonschema	4.16.0	notebook	6.4.12
jupyter	1.0.0	numba	0.53.0
jupyter_client	7.3.4	numexpr	2.8.3
jupyter-console	6.4.3	numpy	1.23.1
jupyter_core	4.11.1	numpydoc	1.4.0
jupyter-server	1.18.1	olefile	0.46
jupyterlab	3.4.4	openpyxl	3.0.10
jupyterlab-pygments	0.1.2	packaging	21.3
jupyterlab_server	2.15.2	pandas	1.4.4
jupyterlab-widgets	1.0.0	pandocfilters	1.5.0
keyring	23.4.0	paramiko	2.8.1
kiwisolver	1.4.2	parso	0.8.3
lazy-object-proxy	1.6.0	partd	1.2.0
libarchive-c	2.9	path	16.2.0
llvmlite	0.36.0	pathlib2	2.3.6
locket	1.0.0	pathspec	0.9.0
lxml	4.9.1	patsy	0.5.2
lz4	3.1.3	pep8	1.7.1
MarkupSafe	2.1.1	pexpect	4.8.0
matplotlib	3.5.2	pickleshare	0.7.5
matplotlib-inline	0.1.6	Pillow	9.2.0
mccabe	0.6.1	pip	22.2.2
menuinst	1.4.19	pkginfo	1.8.2
mistune	0.8.4	platformdirs	2.5.2
mkl-fft	1.3.1	pluggy	1.0.0
mkl-random	1.2.2	ply	3.11
mkl-service	2.4.0		

Package	Version
poyo	0.5.0
prometheus-client	0.14.1
prompt-toolkit	3.0.20
psutil	5.9.0
ptyprocess	0.7.0
py	1.11.0
pycodestyle	2.8.0
pycosat	0.6.3
pycparser	2.21
pycurl	7.45.1
pydocstyle	6.1.1
pyerfa	2.0.0
pyflakes	2.4.0
Pygments	2.11.2
pylint	2.14.5
pyls-spyder	0.4.0
PyNaCl	1.5.0
pyodbc	4.0.34
pyOpenSSL	22.0.0
pyparsing	3.0.9
pyreadline	2.1
pyrsistent	0.18.0
PySocks	1.7.1
pytest	7.1.2
python-dateutil	2.8.2
python-dotenv	0.21.0
python-lsp-black	1.0.0
python-lsp-jsonrpc	1.0.0
python-lsp-server	1.3.3
python-slugify	5.0.2
pytz	2022.1
PyWavelets	1.3.0
pywin32	302
pywin32-ctypes	0.2.0
pywinpty	2.0.2
PyYAML	6.0
pyzmq	23.2.0
q	2.7
QDarkStyle	3.0.2
qstylizer	0.1.10
QtAwesome	1.0.3
qtconsole	5.2.2
QtPy	2.2.0
regex	2022.7.9
requests	2.28.1
rope	0.22.0
Rtree	0.9.7
ruamel-yaml-conda	0.15.100
scikit-image	0.19.2
scikit-learn	1.0.2
scikit-learn-intelex	2021.20221004
scipy	1.9.1
seaborn	0.11.2
Send2Trash	1.8.0
setuptools	63.4.1
simplegeneric	0.8.1
singledispatch	3.7.0
sip	4.19.13
six	1.16.0
sniffio	1.2.0
snowballstemmer	2.2.0
sortedcollections	2.1.0
sortedcontainers	2.4.0
soupsieve	2.3.1
Sphinx	5.0.2
sphinxcontrib-applehelp	1.0.2
sphinxcontrib-devhelp	1.0.2
sphinxcontrib-htmlhelp	2.0.0
sphinxcontrib-jsmath	1.0.1
sphinxcontrib-qthelp	1.0.3
sphinxcontrib-serializinghtml	1.1.5
sphinxcontrib-websupport	1.2.4
spyder	5.2.2
spyder-kernels	2.2.1
SQLAlchemy	1.4.39
statsmodels	0.13.2
sympy	1.10.1
tables	3.6.1
TBB	0.2
tblib	1.7.0
terminado	0.13.1
testpath	0.6.0
text-unidecode	1.3
textdistance	4.2.1

Rys. 4. Wylistowanie wszystkich zainstalowanych pakietów.

Zadanie 2

Utwórz własne repozytorium do przedmiotu na github.com.

1. Utworzenie własnego repozytorium.
2. Sklonowanie repozytorium.
3. Dodanie plików do repozytorium.
4. Wstawienie linku do repozytorium do kursu na upel.agh.edu.pl.

Link do repozytorium: **https://github.com/BrzozkaMarcin/aibd.git**