README FILE:-

For Q2:- Run Q2.ipynb and see the results

For Q3:- Run main.ipynb and observe the results.

For Q4:- Run Q4.ipynb and see the results

Dependencies:-

name: computer_vision

channels:

- anaconda
- conda-forge
- defaults

dependencies:

- _libgcc_mutex=0.1=conda_forge
- openmp mutex=4.5=1 llvm
- alsa-lib=1.2.3=h516909a_0
- astroid=2.9.3=py39hf3d152e 0
- asttokens=2.0.5=pyhd8ed1ab_0
- backcall=0.2.0=pyh9f0ad1d_0
- backports=1.0=py 2
- backports.functools_Iru_cache=1.6.4=pyhd8ed1ab_0
- brotli=1.0.9=h7f98852_5
- brotli-bin=1.0.9=h7f98852 5
- bzip2=1.0.8=h7f98852 4
- c-ares=1.17.1=h7f98852 1
- ca-certificates=2022.9.24=ha878542 0
- cairo=1.16.0=h6cf1ce9_1008
- certifi=2022.9.24=pyhd8ed1ab_0
- colorama=0.4.4=pyh9f0ad1d_0
- cycler=0.11.0=pyhd8ed1ab_0
- dbus=1.13.6=h48d8840 2
- debugpy=1.5.1=py39he80948d_0
- decorator=5.1.1=pyhd8ed1ab 0
- deprecated=1.2.13=pyh6c4a22f_0
- entrypoints=0.4=pyhd8ed1ab_0
- executing=0.8.3=pyhd8ed1ab_0
- expat=2.4.1=h9c3ff4c 0
- ffmpeg=4.3.2=hca11adc_0
- fontconfig=2.13.1=hba837de_1005
- fonttools=4.25.0=pyhd3eb1b0 0
- freetype=2.10.4=h0708190_1

- gettext=0.19.8.1=h0b5b191_1005
- glib=2.68.3=h9c3ff4c_0
- glib-tools=2.68.3=h9c3ff4c_0
- gmp=6.2.1=h58526e2 0
- gnutls=3.6.13=h85f3911_1
- graphite2=1.3.13=h58526e2 1001
- gst-plugins-base=1.18.4=hf529b03 2
- gstreamer=1.18.4=h76c114f_2
- harfbuzz=2.8.2=h83ec7ef_0
- hdbscan=0.8.29=py39h2ae25f5 1
- hdf5=1.10.6=nompi_h6a2412b_1114
- hopcroftkarp=1.2.4=py_0
- icu=68.1=h58526e2 0
- ipykernel=6.9.1=py39hef51801_0
- ipython=8.1.1=py39hf3d152e 0
- isort=5.10.1=pyhd8ed1ab_0
- jasper=1.900.1=h07fcdf6_1006
- jbig=2.1=h7f98852 2003
- jedi=0.18.1=py39hf3d152e_0
- joblib=1.1.0=pyhd8ed1ab 0
- jpeg=9d=h36c2ea0 0
- jupyter_client=7.1.2=pyhd8ed1ab_0
- jupyter_core=4.9.2=py39hf3d152e_0
- kiwisolver=1.3.1=py39h2531618 0
- krb5=1.19.2=hcc1bbae_0
- lame=3.100=h7f98852 1001
- lazy-object-proxy=1.7.1=py39h3811e60_0
- lcms2=2.12=hddcbb42 0
- ld_impl_linux-64=2.35.1=h7274673_9
- lerc=2.2.1=h9c3ff4c_0
- libblas=3.9.0=11_linux64_openblas
- libbrotlicommon=1.0.9=h7f98852 5
- libbrotlidec=1.0.9=h7f98852_5
- libbrotlienc=1.0.9=h7f98852_5
- libcblas=3.9.0=11_linux64_openblas
- libclang=11.1.0=default_ha53f305_1
- libcurl=7.78.0=h2574ce0_0
- libdeflate=1.7=h7f98852_5
- libedit=3.1.20191231=he28a2e2_2
- libev=4.33=h516909a_1
- libevent=2.1.10=hcdb4288 3
- libffi=3.3=he6710b0_2
- libgcc-ng=12.2.0=h65d4601 19
- libgfortran-ng=11.2.0=h69a702a_12

- libgfortran5=11.2.0=h5c6108e_12
- libglib=2.68.3=h3e27bee_0
- libiconv=1.16=h516909a_0
- liblapack=3.9.0=11_linux64_openblas
- liblapacke=3.9.0=11 linux64 openblas
- libllvm11=11.1.0=hf817b99 2
- libnghttp2=1.43.0=h812cca2 0
- libogg=1.3.4=h7f98852 1
- libopenblas=0.3.17=pthreads_h8fe5266_1
- libopencv=4.5.2=py39h70bf20d 1
- libopus=1.3.1=h7f98852_1
- libpng=1.6.37=h21135ba_2
- libpq=13.3=hd57d9b9_0
- libprotobuf=3.16.0=h780b84a_0
- libsodium=1.0.18=h36c2ea0_1
- libssh2=1.9.0=ha56f1ee_6
- libstdcxx-ng=11.2.0=he4da1e4_12
- libtiff=4.3.0=hf544144 1
- libuuid=2.32.1=h7f98852_1000
- libvorbis=1.3.7=h9c3ff4c 0
- libwebp-base=1.2.0=h7f98852 2
- libxcb=1.13=h7f98852_1003
- libxkbcommon=1.0.3=he3ba5ed_0
- libxml2=2.9.12=h72842e0 0
- llvm-openmp=12.0.1=h4bd325d_1
- lz4-c=1.9.3=h9c3ff4c 1
- matplotlib=3.4.3=py39hf3d152e_2
- matplotlib-base=3.4.3=py39hbbc1b5f 0
- matplotlib-inline=0.1.3=pyhd8ed1ab_0
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- munkres=1.1.4=pyh9f0ad1d_0
- mysql-common=8.0.25=ha770c72 2
- mysql-libs=8.0.25=hfa10184_2
- ncurses=6.3=h7f8727e 2
- nest-asyncio=1.5.4=pyhd8ed1ab_0
- nettle=3.6=he412f7d 0
- nspr=4.30=h9c3ff4c_0
- nss=3.67=hb5efdd6 0
- olefile=0.46=pyh9f0ad1d_1
- opencv=4.5.2=py39hf3d152e_1
- openh264=2.1.1=h780b84a 0
- openssl=1.1.1s=h166bdaf_0
- packaging=21.3=pyhd8ed1ab 0
- pandas=1.4.1=py39hde0f152_0

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- patsy=0.5.3=pyhd8ed1ab_0
- pcre=8.45=h9c3ff4c 0
- persim=0.3.1=pyhd8ed1ab_0
- pexpect=4.8.0=pyh9f0ad1d_2
- pickleshare=0.7.5=py 1003
- pixman=0.40.0=h36c2ea0 0
- platformdirs=2.3.0=pyhd8ed1ab 0
- prompt-toolkit=3.0.27=pyha770c72 0
- pthread-stubs=0.4=h36c2ea0 1001
- ptyprocess=0.7.0=pyhd3deb0d_0
- pure_eval=0.2.2=pyhd8ed1ab_0
- py-opencv=4.5.2=py39hef51801_1
- pygments=2.11.2=pyhd8ed1ab_0
- pylint=2.12.2=pyhd8ed1ab_0
- pyparsing=3.0.7=pyhd8ed1ab_0
- pyqt=5.12.3=py39hf3d152e_7
- pyqt-impl=5.12.3=py39h0fcd23e 7
- pyqt5-sip=4.19.18=py39he80948d_7
- pygtchart=5.12=py39h0fcd23e 7
- pyqtwebengine=5.12.1=py39h0fcd23e_7
- python=3.9.7=h12debd9_1
- python-dateutil=2.8.2=pyhd8ed1ab_0
- python abi=3.9=2 cp39
- pytz=2020.1=py_0
- pyzmq=22.3.0=py39h37b5a0c 1
- qt=5.12.9=hda022c4_4
- readline=8.1.2=h7f8727e 1
- ripser=0.6.1=py39h5472131 1
- scikit-learn=1.0.2=py39h4dfa638_0
- scipy=1.7.3=py39hee8e79c_0
- seaborn=0.12.1=hd8ed1ab 0
- seaborn-base=0.12.1=pyhd8ed1ab 0
- setuptools=58.0.4=py39h06a4308_0