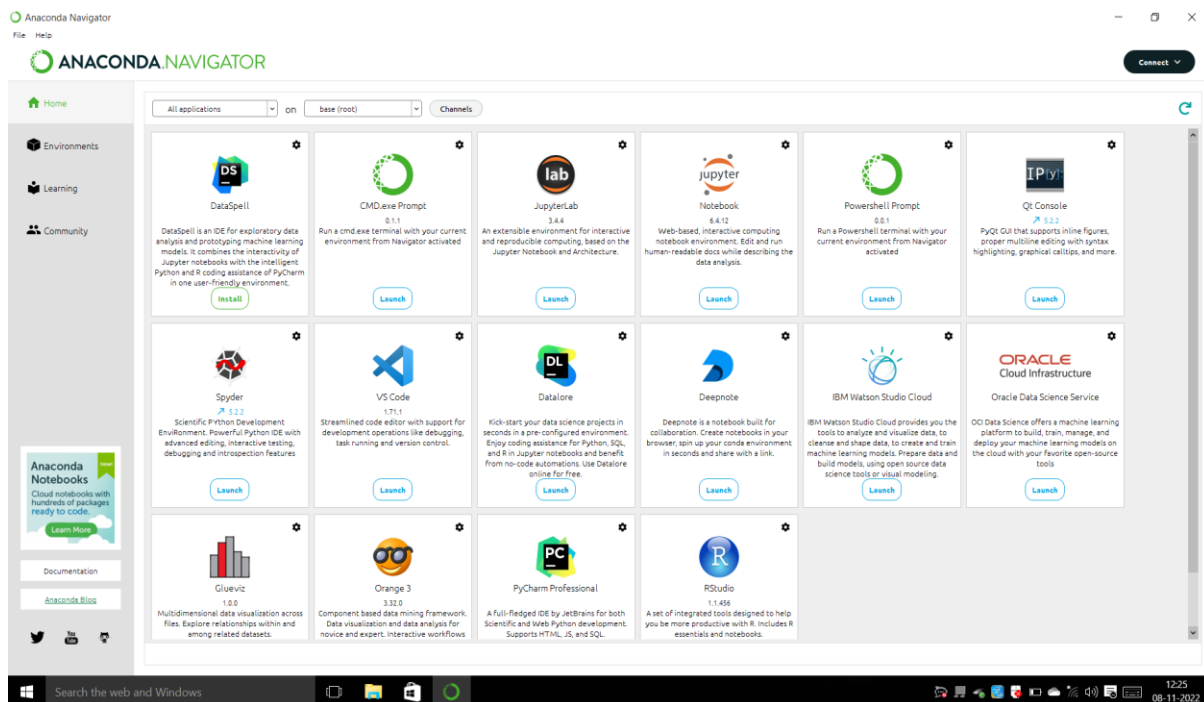


PROJECT DEVELOPMENT PREREQUISITES

| | |
|---------------|--|
| Team ID | PNT2022TMID22447 |
| Project Name | Real time communication system powered by AI for specially abled |
| Maximum Marks | |

Anaconda (IDLE / Spyder / PyCharm) INSTALLATION



downloading the required packages:

- Open anaconda prompt as administrator.
- Type "**pip install tensorflow**" and click enter.
- Type "**pip install keras**" and click enter.
- Type "**pip install opencv-python**" and click enter.
- Type "**pip install imutils**" and click enter.
- Type "**pip install flask**" and click enter.

```
Administrator: Anaconda Prompt (Anaconda3)

(base) C:\Windows\system32>pip install tensorflow
Collecting tensorflow
  Downloading tensorflow-2.10.0-cp39-cp39-win_amd64.whl (455.9 MB)
    455.9/455.9 MB 171.0 kB/s eta 0:00:00
WARNING: Retrying (Retry(total=4, connect=None, read=None, redirect=None, status=None)) after connection broken by 'ReadTimeoutError("HTTPConnectionPool(host='pypi.org', port=443): Read timed out. (read timeout=15)')': /simple/astunparse/
Collecting astunparse>=1.6.0
  Downloading astunparse-1.6.3-py2.py3-none-any.whl (12 kB)
Collecting protobuf<3.20,>=3.9.2
  Downloading protobuf-3.19.6-cp39-cp39-win_amd64.whl (895 kB)
    895.0/895.0 MB 514.0 kB/s eta 0:00:00
Requirement already satisfied: h5py>=2.9.0 in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (3.7.0)
Collecting opt_einsum>=2.3.2
  Downloading opt_einsum-3.3.0-py3-none-any.whl (65 kB)
Requirement already satisfied: setuptools in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (63.4.1)
Requirement already satisfied: packaging in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (21.3)
Collecting termcolor>=1.1.0
  Downloading termcolor-2.1.0-py3-none-any.whl (5.8 kB)
Collecting google_pasta>=0.1.1
  Downloading google_pasta-0.2.0-py3-none-any.whl (57 kB)
Requirement already satisfied: wrapt>=1.11.0 in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (1.14.1)
Collecting absl-py>=0.8
  Downloading absl_py-1.3.0-py3-none-any.whl (124 kB)
    124.0/124.0 MB 608.2 kB/s eta 0:00:00
Collecting tensorboard<2.11,>=2.10
  Downloading tensorboard-2.10.1-py3-none-any.whl (5.9 MB)
    5.9/5.9 MB 390.9 kB/s eta 0:00:00
Collecting keras-preprocessing>=1.1.1
  Downloading Keras_Preprocessing-1.1.2-py2.py3-none-any.whl (42 kB)
    42.6/42.6 MB 414.6 kB/s eta 0:00:00
Requirement already satisfied: six>=1.12.0 in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (1.16.0)
Collecting grpcio<2.0,>=1.24.3
  Downloading grpcio-1.50.0-cp39-cp39-win_amd64.whl (3.7 MB)
    3.7/3.7 MB 325.9 kB/s eta 0:00:00
Collecting keras<2.11,>=2.10.0
  Downloading keras-2.10.0-py2.py3-none-any.whl (1.7 MB)
    1.7/1.7 MB 226.0 kB/s eta 0:00:00
Collecting gast<0.4.0,>=0.2.1
  Downloading gast-0.4.0-py3-none-any.whl (9.8 kB)
Requirement already satisfied: numpy>=1.20 in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (1.21.5)
Requirement already satisfied: typing-extensions>=3.6.6 in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (4.3.0)
Collecting tensorflow-io-gcs-filesystem>=0.23.1
  Downloading tensorflow_io_gcs_filesystem-0.27.0-cp39-cp39-win_amd64.whl (1.5 MB)
    1.5/1.5 MB 329.8 kB/s eta 0:00:00
Collecting libclang>=13.0.0
  Downloading libclang-14.0.6-py2.py3-none-win_amd64.whl (14.2 MB)
    14.2/14.2 MB 268.4 kB/s eta 0:00:00
```

```
Select Administrator: Anaconda Prompt (Anaconda3)

Collecting keras-preprocessing>=1.1.1
  Downloading Keras_Preprocessing-1.1.2-py2.py3-none-any.whl (42 kB)
    42.6/42.6 MB 414.6 kB/s eta 0:00:00
Requirement already satisfied: six>=1.12.0 in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (1.16.0)
Collecting grpcio<2.0,>=1.24.3
  Downloading grpcio-1.50.0-cp39-cp39-win_amd64.whl (3.7 MB)
    3.7/3.7 MB 325.9 kB/s eta 0:00:00
Collecting keras<2.11,>=2.10.0
  Downloading keras-2.10.0-py2.py3-none-any.whl (1.7 MB)
    1.7/1.7 MB 226.0 kB/s eta 0:00:00
Collecting gast<0.4.0,>=0.2.1
  Downloading gast-0.4.0-py3-none-any.whl (9.8 kB)
Requirement already satisfied: numpy>=1.20 in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (1.21.5)
Requirement already satisfied: typing-extensions>=3.6.6 in c:\programdata\anaconda3\lib\site-packages (from tensorflow) (4.3.0)
Collecting tensorflow-io-gcs-filesystem>=0.23.1
  Downloading tensorflow_io_gcs_filesystem-0.27.0-cp39-cp39-win_amd64.whl (1.5 MB)
    1.5/1.5 MB 329.8 kB/s eta 0:00:00
Collecting libclang>=13.0.0
  Downloading libclang-14.0.6-py2.py3-none-win_amd64.whl (14.2 MB)
    14.2/14.2 MB 268.4 kB/s eta 0:00:00
Collecting flatbuffers>=2.0
  Downloading flatbuffers-22.10.26-py2.py3-none-any.whl (26 kB)
Collecting tensorflow-estimator<2.11,>=2.10.0
  Downloading tensorflow_estimator-2.10.0-py2.py3-none-any.whl (438 kB)
    438.7/438.7 MB 415.0 kB/s eta 0:00:00
Requirement already satisfied: wheel<1.0,>=0.23.0 in c:\programdata\anaconda3\lib\site-packages (from astunparse>=1.6.0->tensorflow) (0.37.1)
Requirement already satisfied: markdown>=2.6.8 in c:\programdata\anaconda3\lib\site-packages (from tensorboard<2.11,>=2.10->tensorflow) (3.3.4)
Collecting tensorboard-plugin-wit>=1.6.0
  Downloading tensorboard_plugin_wit-1.8.1-py3-none-any.whl (781 kB)
    781.3/781.3 MB 295.5 kB/s eta 0:00:00
Collecting tensorboard-data-server<0.7.0,>=0.6.0
  Downloading tensorboard_data_server-0.6.1-py3-none-any.whl (2.4 kB)
Collecting google_auth<3,>=1.6.3
  Downloading google_auth-2.14.1-py2.py3-none-any.whl (175 kB)
    175.4/175.4 MB 229.6 kB/s eta 0:00:00
Requirement already satisfied: werkzeug>=1.0.1 in c:\programdata\anaconda3\lib\site-packages (from tensorboard<2.11,>=2.10->tensorflow) (2.0.3)
Requirement already satisfied: requests<3,>=2.21.0 in c:\programdata\anaconda3\lib\site-packages (from tensorboard<2.11,>=2.10->tensorflow) (2.28.1)
Collecting google_auth_oauthlib>=0.4.1
  Downloading google_auth_oauthlib-0.4.6-py2.py3-none-any.whl (18 kB)
Requirement already satisfied: pyParsing>=3.0.5,>=2.0.2 in c:\programdata\anaconda3\lib\site-packages (from packaging->tensorflow) (3.0.9)
Requirement already satisfied: pyasn1-modules>=0.2.1 in c:\programdata\anaconda3\lib\site-packages (from google_auth<3,>=1.6.3->tensorboard<2.11,>=2.10->tensorflow) (0.2.8)
Collecting rsa<5,>=3.1.4
  Downloading rsa-4.9-py3-none-any.whl (34 kB)
Collecting cachetools<6.0,>=2.0.0
  Downloading cachetools-5.2.0-py3-none-any.whl (9.3 kB)
Collecting requests_oauthlib>=0.7.0
  Downloading requests_oauthlib-1.3.1-py2.py3-none-any.whl (23 kB)
Requirement already satisfied: idna<4,>=2.5 in c:\programdata\anaconda3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<2.11,>=2.10->tensorflow) (3.3)
```

```
Administrator: Anaconda Prompt (Anaconda3)

Downloading tensorboard_plugin_wit-1.8.1-py3-none-any.whl (781 kB)
----- 781.3/781.3 kB 295.3 kB/s eta 0:00:00
Collecting tensorboard-data-server<0.7.0,>=0.6.0
  Downloading tensorboard_data_server-0.6.1-py3-none-any.whl (2.4 kB)
Collecting google-auth<3,>=1.6.3
  Downloading google_auth-2.14.1-py2.py3-none-any.whl (175 kB)
----- 175.4/175.4 kB 229.6 kB/s eta 0:00:00
Requirement already satisfied: werkzeug>=0.1 in c:\programdata\anaconda3\lib\site-packages (from tensorboard<2.11,>=2.10->tensorflow) (2.0.3)
Requirement already satisfied: requests<3,>=2.21.0 in c:\programdata\anaconda3\lib\site-packages (from tensorboard<2.11,>=2.10->tensorflow) (2.28.1)
Collecting google-auth-oauthlib<0.5,>=0.4.1
  Downloading google_auth_oauthlib-0.4.6-py2.py3-none-any.whl (18 kB)
Requirement already satisfied: pyasn1<=3.0.5,>=2.0.2 in c:\programdata\anaconda3\lib\site-packages (from packaging->tensorflow) (3.0.9)
Requirement already satisfied: pyasn1-modules<=0.2.1 in c:\programdata\anaconda3\lib\site-packages (from google-auth<3,>=1.6.3->tensorboard<2.11,>=2.10->tensorflow) (0.2.8)
Collecting rsa<5,>=3.1.4
  Downloading rsa-4.9-py3-none-any.whl (34 kB)
Collecting cachetools<6.0,>=2.0.0
  Downloading cachetools-5.2.0-py3-none-any.whl (9.3 kB)
Collecting requests-oauthlib<0.7.0
  Downloading requests_oauthlib-1.3.1-py2.py3-none-any.whl (23 kB)
Requirement already satisfied: idna<4,>=2.5 in c:\programdata\anaconda3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<2.11,>=2.10->tensorflow) (3.3)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\programdata\anaconda3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<2.11,>=2.10->tensorflow) (1.26.11)
Requirement already satisfied: charset-normalizer<3,>=2 in c:\programdata\anaconda3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<2.11,>=2.10->tensorflow) (2.0.4)
Requirement already satisfied: certifi<=2017.4.17 in c:\programdata\anaconda3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<2.11,>=2.10->tensorflow) (2022.9.14)
Requirement already satisfied: pyasn1<0.5.0,>=0.4.6 in c:\programdata\anaconda3\lib\site-packages (from pyasn1-modules<=0.2.1->google-auth<3,>=1.6.3->tensorboard<2.11,>=2.10->tensorflow) (0.4.8)
Collecting oauthlib<3.2.2-py3-none-any.whl (151 kB)
----- 151.7/151.7 kB 205.6 kB/s eta 0:00:00
Installing collected packages: tensorboard-plugin-wit, libclang, keras, flatbuffers, termcolor, tensorflow-io-gcs-filesystem, tensorflow-estimator, tensorboard-data-server, rsa, protobuf, opt-einsum, oauthlib,
keras-preprocessing, grpcio, google-pasta, gast, cachetools, astunparse, absl-py, requests-oauthlib, google-auth, google-auth-oauthlib, tensorboard, tensorflow
Successfully installed absl-py-1.3.0 astunparse-1.6.3 cachetools-5.2.0 flatbuffers-22.10.26 gast-0.4.0 google-auth-2.14.1 google-auth-oauthlib-0.4.6 google-pasta-0.2.0 grpcio-1.50.0 keras-2.10.0 keras-preproces
sing-1.1.2 libclang-14.0.6 oauthlib-3.2.2 opt-einsum-3.3.0 protobuf-3.19.6 requests-oauthlib-1.3.1 rsa-4.9 tensorboard-2.10.1 tensorboard-data-server-0.6.1 tensorboard-plugin-wit-1.8.1 tensorflow-2.10.0 tensorf
low-estimator-2.10.0 tensorflow-io-gcs-filesystem-0.27.0 termcolor-2.1.0

(base) C:\Windows\system32>pip install keras
Requirement already satisfied: keras in c:\programdata\anaconda3\lib\site-packages (2.10.0)

(base) C:\Windows\system32>pip install opencv-python
Collecting opencv-python
  Downloading opencv_python-4.6.0.66-cp36-ab13-win_and64.whl (35.6 MB)
----- 35.6/35.6 MB 1.1 MB/s eta 0:00:00
Requirement already satisfied: numpy>=1.19.3 in c:\programdata\anaconda3\lib\site-packages (from opencv-python) (1.21.5)
Installing collected packages: opencv-python
Successfully installed opencv-python-4.6.0.66

(base) C:\Windows\system32>pip install imutils
Collecting imutils
  Downloading imutils-0.5.4.tar.gz (17 kB)
  Preparing metadata (setup.py) ... done
Building wheels for collected packages: imutils
  Building wheel for imutils (setup.py) ... done
  Created wheel for imutils: filename=imutils-0.5.4-py3-none-any.whl size=25847 sha256=69db37eb4f69c1fdd6080ef5891759dce3d5896fb90b6af39a41dbe52143667
  Stored in directory: c:\users\user\appdata\local\pip\cache\wheels\4b\51\2d\4a070a801d3a3d93f03d3ee9728f470f514826e89952df3ea
Successfully built imutils
Installing collected packages: imutils
Successfully installed imutils-0.5.4

(base) C:\Windows\system32>pip install flask
Requirement already satisfied: flask in c:\programdata\anaconda3\lib\site-packages (1.1.2)
Requirement already satisfied: itsdangerous<0.24 in c:\programdata\anaconda3\lib\site-packages (from flask) (2.0.1)
Requirement already satisfied: Werkzeug>=0.15 in c:\programdata\anaconda3\lib\site-packages (from flask) (2.0.3)
Requirement already satisfied: Jinja2>=2.10.1 in c:\programdata\anaconda3\lib\site-packages (from flask) (2.11.3)
Requirement already satisfied: click>=5.1 in c:\programdata\anaconda3\lib\site-packages (from flask) (8.0.4)
Requirement already satisfied: colorama in c:\programdata\anaconda3\lib\site-packages (from click>=5.1->flask) (0.4.5)
Requirement already satisfied: MarkupSafe<0.23 in c:\programdata\anaconda3\lib\site-packages (from Jinja2>=2.10.1->flask) (2.0.1)

(base) C:\Windows\system32>pip install tensorflow
```

```
Administrator: Anaconda Prompt (Anaconda3)

Downloading opencv_python-4.6.0.66-cp36-ab13-win_and64.whl (35.6 MB)
----- 35.6/35.6 MB 1.1 MB/s eta 0:00:00
Requirement already satisfied: numpy>=1.19.3 in c:\programdata\anaconda3\lib\site-packages (from opencv-python) (1.21.5)
Installing collected packages: opencv-python
Successfully installed opencv-python-4.6.0.66

(base) C:\Windows\system32>pip install imutils
Collecting imutils
  Downloading imutils-0.5.4.tar.gz (17 kB)
  Preparing metadata (setup.py) ... done
Building wheels for collected packages: imutils
  Building wheel for imutils (setup.py) ... done
  Created wheel for imutils: filename=imutils-0.5.4-py3-none-any.whl size=25847 sha256=69db37eb4f69c1fdd6080ef5891759dce3d5896fb90b6af39a41dbe52143667
  Stored in directory: c:\users\user\appdata\local\pip\cache\wheels\4b\51\2d\4a070a801d3a3d93f03d3ee9728f470f514826e89952df3ea
Successfully built imutils
Installing collected packages: imutils
Successfully installed imutils-0.5.4

(base) C:\Windows\system32>pip install flask
Requirement already satisfied: flask in c:\programdata\anaconda3\lib\site-packages (1.1.2)
Requirement already satisfied: itsdangerous<0.24 in c:\programdata\anaconda3\lib\site-packages (from flask) (2.0.1)
Requirement already satisfied: Werkzeug>=0.15 in c:\programdata\anaconda3\lib\site-packages (from flask) (2.0.3)
Requirement already satisfied: Jinja2>=2.10.1 in c:\programdata\anaconda3\lib\site-packages (from flask) (2.11.3)
Requirement already satisfied: click>=5.1 in c:\programdata\anaconda3\lib\site-packages (from flask) (8.0.4)
Requirement already satisfied: colorama in c:\programdata\anaconda3\lib\site-packages (from click>=5.1->flask) (0.4.5)
Requirement already satisfied: MarkupSafe<0.23 in c:\programdata\anaconda3\lib\site-packages (from Jinja2>=2.10.1->flask) (2.0.1)

(base) C:\Windows\system32>pip install tensorflow
```