1. Getting Started/Installation

Installation on Windows - Python and Node.JS installation

Python 3:

1. Download Python 3 from official download page (https://www.python.org/downloads/)
2. Once the download is complete, install python by launching the setup file and follow the on-screen instructions for installation
3. After the installation is complete, verify it by running the command – **python –version** in command prompt.

```
( venv ) (base) D:\Projects\                                >python --version
Python 3.7.1
```

Node.JS:

1. Download Node.JS from official website - https://nodejs.org/en/
2. Once the download is complete, please follow the on-screen installation setup steps.
3. After the installation is complete, verify the installation by typing the command **node –v** in command prompt.

```
U:\>node -v
v10.15.1
```

Creating the Virtual Environment (**Python**)

1. Virtual Environment is pre-installed in Python 3
2. We can manually install it with pip if it doesn't exist by running the command - **pip install virtualenv**
3. Create a new environment by using the below command

```
(base) D:\Projects\          \virtualenv>python -m venv  venv_name
```

4. Activate the environment by using the command
   <venv>\Scripts\activate.bat - <venv> (virtual environment name)
5. Update pip before installing the dependencies

```
          (base) D:\Projects\          \virtualenv\  venv  \Scripts>pip list
Package    Version
---------- -------
pip        10.0.1
setuptools 39.0.1
You are using pip version 10.0.1, however version 19.3.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

( venv ) (base) D:\Projects\          \virtualenv\          \Scripts>python -m pip install --upgrade pip
Collecting pip
  Downloading https://files.pythonhosted.org/packages/00/b6/9cfa56b4081ad13874b0c6f96af8ce16cfbc1cb06bedf8
    100% |                                | 1.4MB 1.5MB/s
Installing collected packages: pip
  Found existing installation: pip 10.0.1
    Uninstalling pip-10.0.1:
      Successfully uninstalled pip-10.0.1
Successfully installed pip-19.3.1
```

Enabling Proxy Connection – **Python**

- If pip install package-name command fails, most likely user is running behind a proxy network, to allow package downloads proxy settings need to be updated by using the below steps

Windows 10 –

1. Click on windows icon
2. Go to settings- find environment variables in search box
3. Click on Edit environment variables for your account
4. New window open showing the available environment variables
5. Click on New.. and edit variable name and variable value with values given below and click ok.
   http_proxy = "http://proxylink/"
   https_proxy = "http://proxylink/"
   ftp_proxy = "http://proxylink/"
   socks_proxy = "http://proxylink/"
6. Exit the command prompt and relaunch the command prompt for changes to get affected.

Ubuntu –

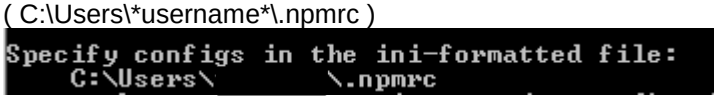
1. Open the terminal
2. Type sudo nano /etc/environment (Admin Mode – enter password)
3. Add new lines below the PATH variables

4. Enter http_proxy , https_proxy , socks_proxy, ftp_proxy for allowing package downloads behind the proxy.
5. Save the file and exit the terminal and relaunch the terminal for changes to get affected.

Enabling Proxy Connection – **Node.JS**

- **Windows 10 -**

1. User needs to create a file called .npmrc in the user's root directory
   (C:\Users*username*\.npmrc)



2. Edit the file with any text editor and enter
   the below commands.
   registry=https://registry.npmjs.org;
   proxy= "http://proxylink/"
   http-proxy= "http://proxylink/"
   https-proxy= "http://proxylink/"
3. Restart the command prompt for changes to get affected.

- **Ubuntu**

1. Open User's home directory by entering the below command in terminal
   > $HOME
2. Create a new file called .npmrc by using the below command
   > touch .npmrc
3. Open the file using any text editor (nano, vi, gedit e.t.c) and enter the below commands and save the file.
   registry=https://registry.npmjs.org;
   proxy= "http://proxylink/"
   http-proxy= "http://proxylink/"

https-proxy= “http://proxylink/”

4. Restart the terminal for changes to get affected.

Installing dependencies – **Python**

1. Activate the environment by using the command
   Windows :
   <venv>\Scripts\activate.bat - <venv_name> virtual environment name

   output : (venv_name) (base) D:\Projects\OCR\virtualenv>

   Ubuntu :
   source venv_name/bin/activate

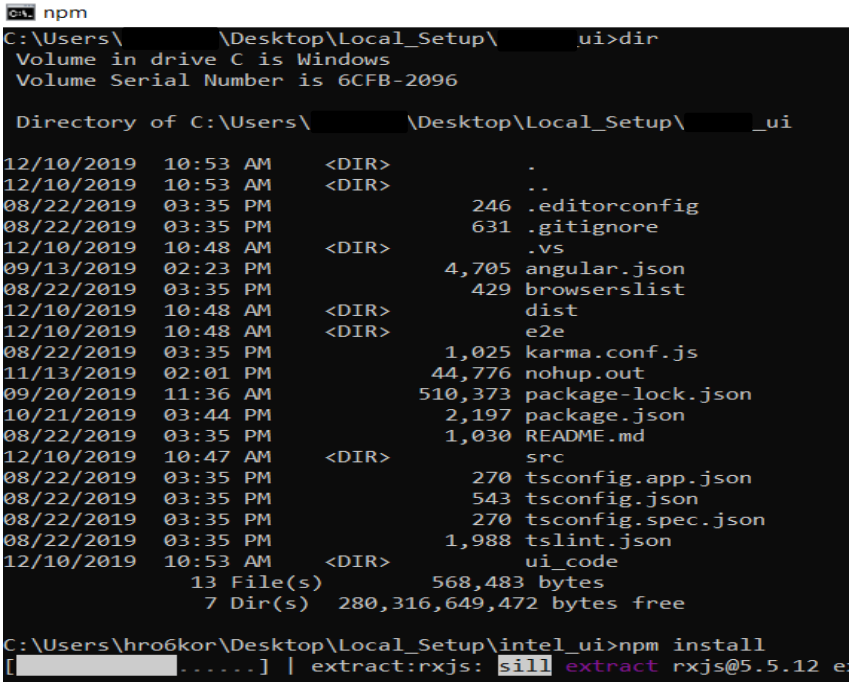
   output : (venv_env) testuser@localhost:~/python-environment$
2. Install the required dependencies by navigating to the application folder.
3. Find the requirements.txt file
4. Make sure the virtualenv is active before running the below command
   pip install –r requirements.txt
5. After the installation is complete, verify the packages by typing the command pip list
6. Run the app.py file in the application folder

```
D:\Projects\         \virtualenv\         \lib\site-packages\keras_preprocessing\image
Warning: This ImageDataGenerator specifies `zca_whitening`, which overrides setting of
  warnings.warn('This ImageDataGenerator specifies '
 * Serving Flask app "app" (lazy loading)
 * Environment: production
   WARNING: This is a development server. Do not use it in a production deployment.
   Use a production WSGI server instead.
 * Debug mode: off
INFO:werkzeug: * Running on http://0.0.0.0:5005/ (Press CTRL+C to quit)
```

7. API server will run on port 5005.
8. We can test the API’s by using the swagger documentation link
   http://localhost:5005/api/documentation

Installing dependencies – **Node.JS**

1. Browse to the project folder



2. Confirm whether NodeJS is present by running the command (**node -v**)
3. Make sure package.json file in present in the application folder
4. Run the command (inside project folder)

npm install

5. All the required packages will be auto downloaded
6. To run the server, we need to execute the command
   ng serve or **npm start**
7. After the server has started, we need to open a browser and enter the below URL http://localhost:9444/ (please make sure the API server is running in the backend before trying out the application from
8. Setup is complete.