

Configurational Manual - Project

MSc. Research Project
MSc. Data Analytics

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Project Submission Sheet
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1 Introduction

This configurational manual helps to recreate the project - Forecasting the air pollution in New Delhi using deep Learning methodology with Covid-19 lockdown focus. In the given below section hardware and software tools are described in brief. This manual also tells about the source of dataset used.

2 System Requirements

2.1 Hardware Requirements

1. In the given below figure machine used is described in detail.



Figure 1: Mac Specification

For this report, Mac laptop has been used. The configuration of the laptop has been shown in the above figure.

2.2 Software Requirements

1. Jupyter: Running various models on forecasting air pollution using deep learning model like LSTM like the Encoder-Decoder-LSTM, Bi-Directional LSTM, and LSTM-Forward Neural Network have also been implemented.

3 Dataset

The dataset is available to general researchers to use it and it do now require any permission for downloading it.

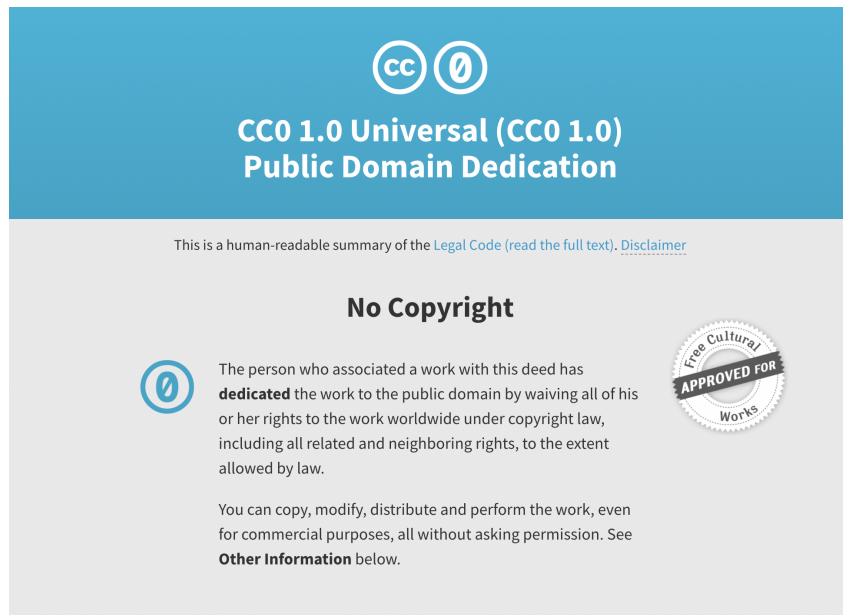


Figure 2: Delhi Air Pollution Data - Copyright

The dataset has been downloaded from the Delhi Air Control Board website.¹

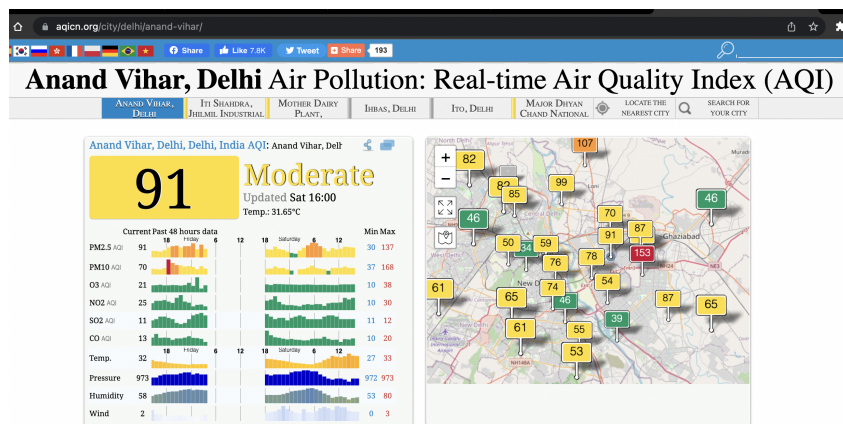


Figure 3: Delhi Air Pollution Website Data Source

4 Installation

4.1 How to install

1. Installation 3.10.6 Python The installation is straight forward and just like any normal software installation in windows.
2. Install required packages matplotlib, sklearn, pandas, numpy to name a few.

¹<https://cpcb.nic.in/>

5 Execute

By following the below steps to run the code given :

1. Download the given zip with datasets and python files
2. unzip the files into a folder item.
3. Open Jupyter notebook or any IDE that supports .ipynb files or load .ipynb file in Jupyter notebook. the path to path referencing dataset with in your folder
4. Run the code, either step by step or whole code at the same time.

References