

# Requirements

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## 1 Introduction

In this document, the dependencies and versions required to compile or run the code will be presented.

## 2 Language used and version needed

The language used here is Python. Some libraries used in this project don't support all versions of Python. The recommended versions are Python 3.9 to 3.12.

## 3 Dependencies needed

The use of 'pip' is recommended to install these packages.

### 3.1 Dependencies needed to run the code

Just the main code of the tool uses the following modules or libraries. The link to install them is also given :

- random : already installed with Python.
- time : already installed with Python.
- ast : already installed with Python.
- NumPy : <https://numpy.org/install/>. It is necessary to note that NumPy is listed as a dependency for TensorFlow, pandas, and scikit-learn. Installing one of these libraries will automatically install NumPy with the correct version. It is therefore recommended to let TensorFlow install this package.
- TensorFlow : <https://www.tensorflow.org/install/pip?hl=fr>. This library has a number of requirements for installation, including hardware, pip version, and Python version.
- pandas : [https://pandas.pydata.org/docs/getting\\_started/install.html](https://pandas.pydata.org/docs/getting_started/install.html). This library has the same requirements as TensorFlow regarding the version of Python used.
- scikit-learn : <https://scikit-learn.org/stable/install.html>.

### 3.2 Dependencies needed to view the results presented in the report

To run the code necessary to obtain the results provided in the report, the dependencies used in addition to those already used are the following:

- sys : already included with Python.
- os : already included with Python.
- SciPy: <https://scipy.org/install/>. Like NumPy, SciPy is already listed as a dependency of scikit-learn.

- Matplotlib : <https://matplotlib.org/stable/install/index.html>. It is also listed as a dependency of scikit-learn.
- seaborn : <https://seaborn.pydata.org/installing.html>. It is also listed as a dependency of scikit-learn.