

Mechanisms of Action (MoA) Prediction Tutorial - Group 4

Software Installation and Data Download Guide

Introduction

This tutorial will guide you through the installation of necessary software and downloading of datasets required for the MoA Prediction Tutorial. The goal is to ensure a seamless setup before starting the tutorial.

Software Requirements

1. Python and Required Libraries

Step 1: Install Python (recommended version: 3.8+)

- Download and install Python from [Python.org](https://python.org).
- Ensure `pip` (Python package manager) is installed by running:
`python --version`
`pip --version`

Step 2: Install required Python packages Run the following command in your terminal to install necessary libraries:

- `pip install numpy pandas scikit-learn matplotlib seaborn`

2. Jupyter Notebook Installation (Alternative: Use Google Colab)

Jupyter Notebook is required to run and execute the tutorial code interactively.

Step 1: Install Jupyter Notebook

- `pip install jupyterlab`

Step 2: Launch Jupyter Notebook

- `jupyter notebook`

Data Download

MoA Dataset

The dataset used in this tutorial is available on Google Drive.

Step 1: Download the dataset from the following link: [MoA Dataset on Google Drive](#)

Step 2: Extract the dataset after downloading:

- If using a local machine, extract the dataset to a suitable directory.
- If using Google Colab, upload the dataset manually using the file upload feature.

Expected Outcomes

- Python and necessary libraries installed.
- Jupyter Notebook running without issues.
- MoA dataset successfully downloaded and available for analysis.

Troubleshooting

- If `pip install` fails, try updating pip first:
`python -m pip install --upgrade pip`
- If Jupyter Notebook does not open, try:
`jupyter notebook --allow-root`

References

- Kaggle MoA Competition: <https://www.kaggle.com/competitions/lish-moa>
- Jupyter Notebook: <https://jupyter.org>
- Scikit-learn: <https://scikit-learn.org>