Project Manual Document

Introduction :

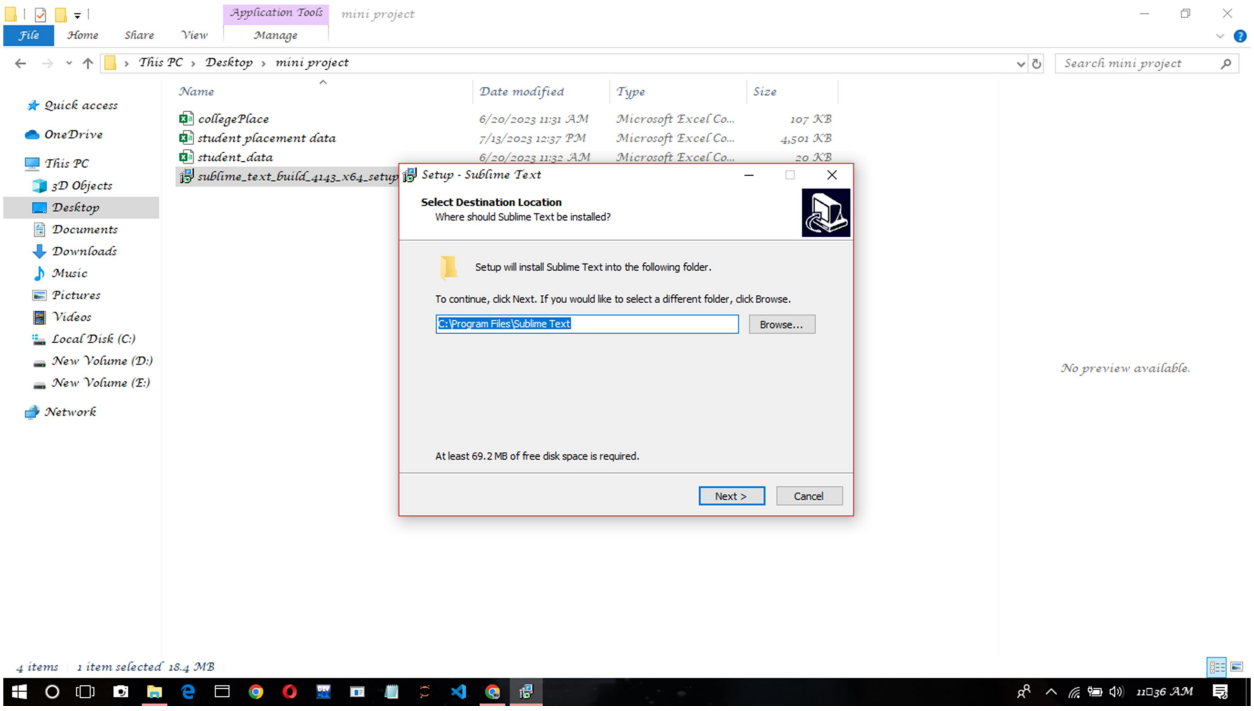
The project is designed to predict job placements for graduating students based on factors such as grades, internships, projects, and technical skills. Our goal is to develop a system that can accurately identify which students are more likely to secure job placements after graduation. To achieve this, we have employed various classification algorithms, including Decision Tree, Logistic Regression, and Random Forest. These algorithms analyze the provided data and generate predictions with a high level of accuracy.

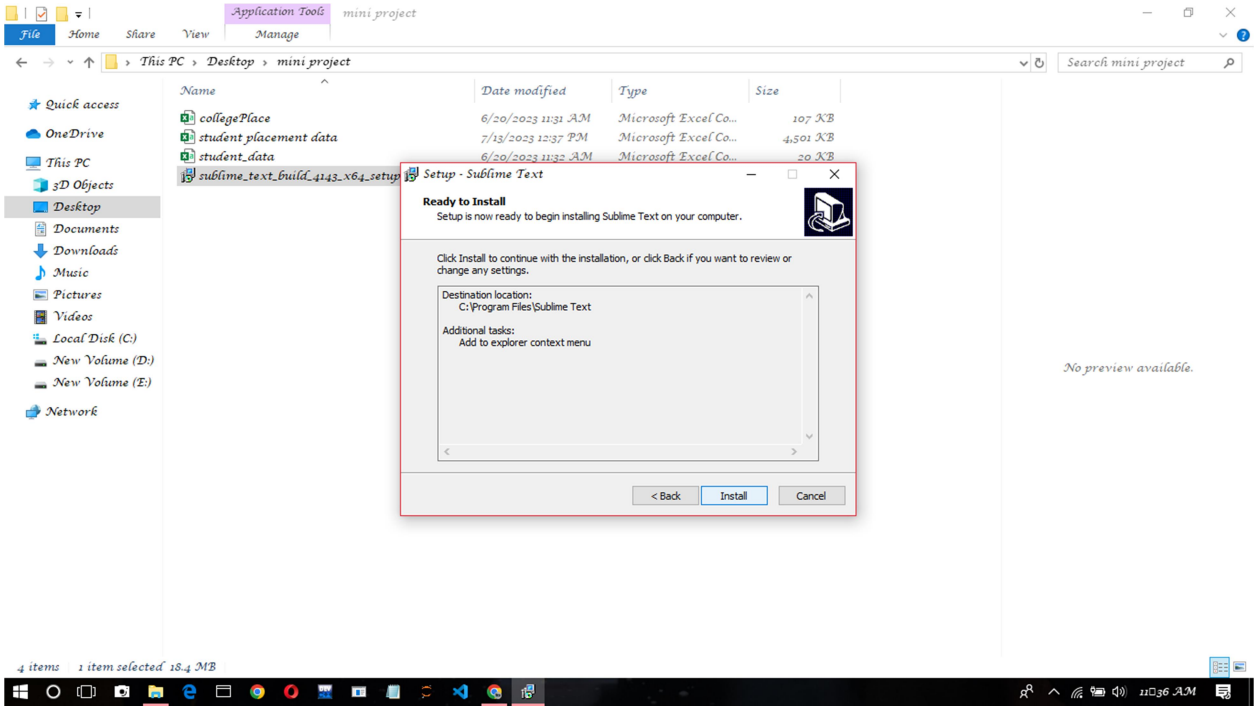
1.Project Setup :

- To set up the project environment , follow these steps :
- Open your web browser , and go to the Google collab website. https://colab.research.google.com
- If you have a google account,sign in, if you don't have one,create a Google account.
- After signing in, you'll be taken to the colab homepage.
- To start a New Project, click on "New Notebook" or open an existing notebook from google drive or github.
- Install necessary machine learning libraries such as scikit learn ,pandas, numpy.

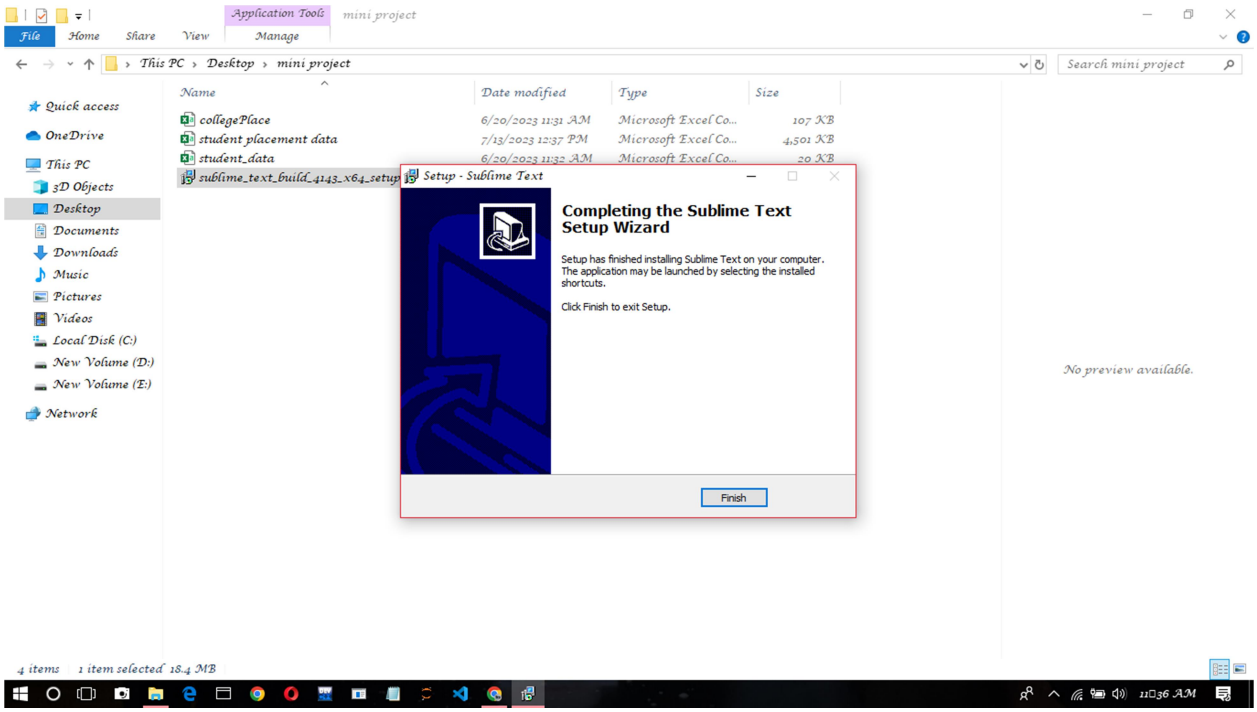
Install Sublime Text :

- Go to the Sublime Text website (https://www.sublimetext.com) and download the appropriate version for your operating system.

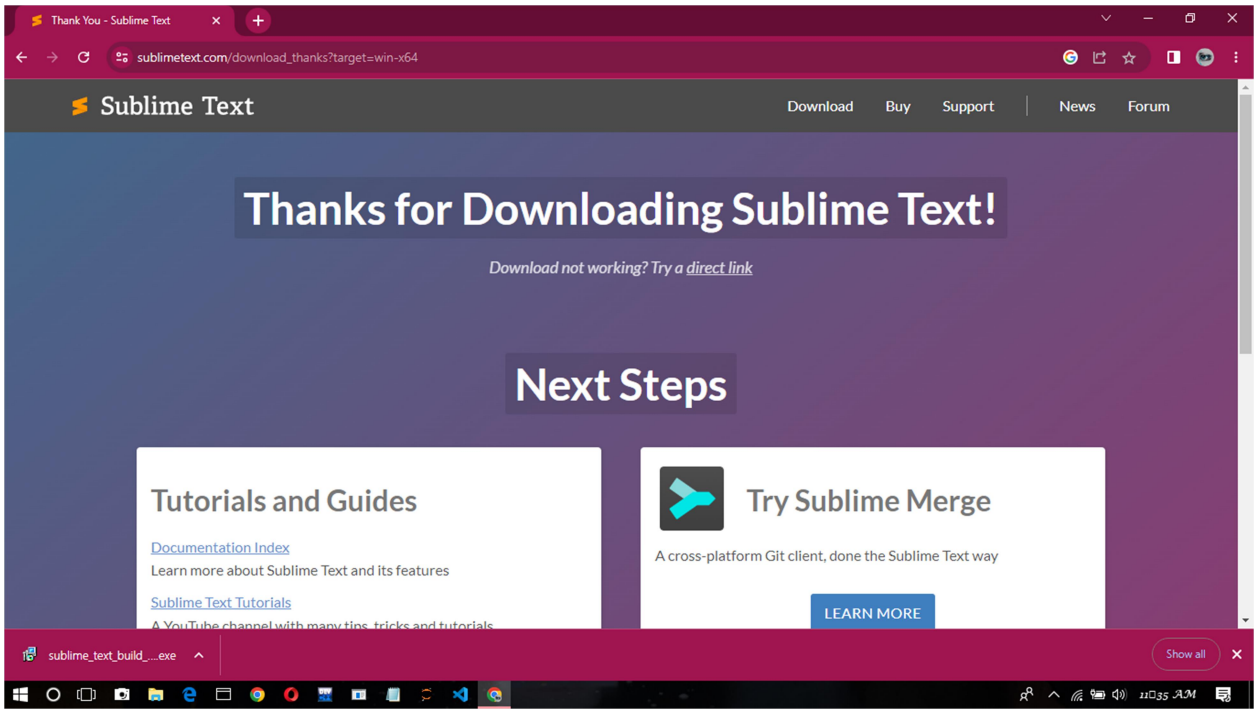


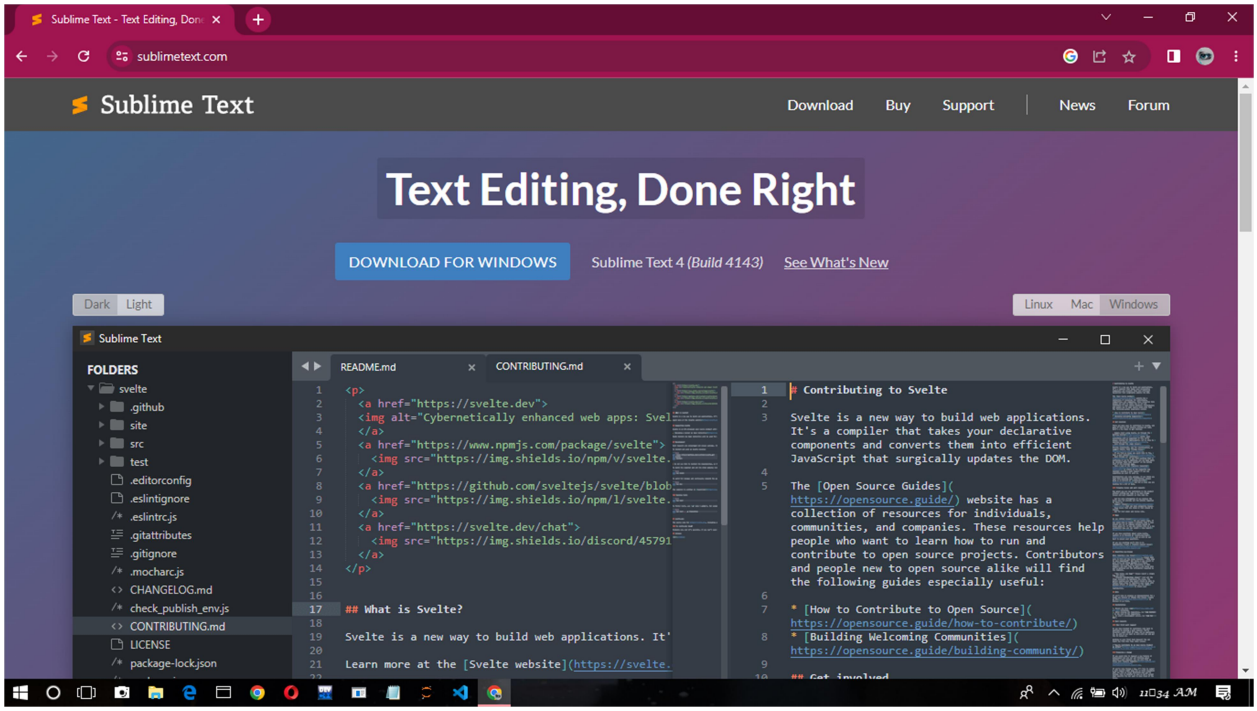


- Follow the installation instructions provided on the website.



- Once installed, launch Sublime Text and start using it for the project.





Setup Streamlit :

- Streamlit is a python library for building interactive web applications.
- Open the command prompt or terminal in computer.
- The command to install Streamlit : pip install streamlit
- Open Sublime Text and create a new Python script file (eg.., app.py)
- Save the python script file in a project folder on our computer.
- Run the Streamlit application and Navigate to the project folder directory, Use the following command : streamlit run app.py

2.Data Collection and Preprocessing:

- Gather relevant data from the students. It includes obtaining data such astheir grades, skills and internships
- Data preprocessing involves cleaning,transforming and integrating the collected student data to ensure quality and usability for training the prediction model.

3.ML Model Development:

- Split the data into training and testing datasets.
- Select appropriate machine learning algorithms, such as decision trees or logistic regression.
- Train the model using the training dataset and evaluate the model's performance using accuracy.

4.Challenges Faced:

During the development of the project, we encountered the following challenges:

- Encountered difficulty in finding a sufficient amount of relevant data for job.
- placements.Encountered difficulty in finding a sufficient amount of relevant data for job placements.
- Effectively handling missing values and outliers in the data.
- Faced the challenge of optimizing the model's performance to achieve the desired accuracy.

5.Hardware Components:

No specialized hardware components are required for this project. It can be implemented using standard computing equipment.

6.Project Expenditures:

There were no direct expenses spent for this project. All required software and datasets were obtained from freely available sources.

7.Conclusion:

In conclusion, the "Placement Prediction using ML" project aimed to predict job placements using machine learning techniques. By following the outlined steps, we successfully developed a model that can provide insights into the likelihood of job placements for individuals