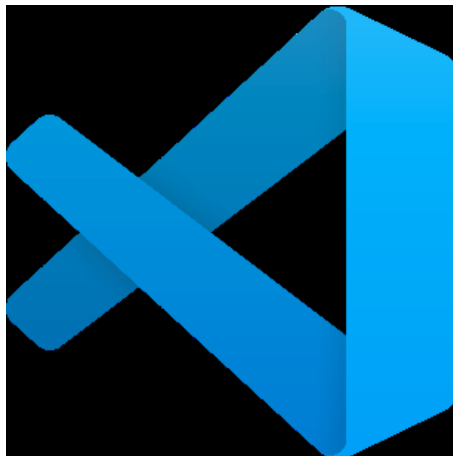# PRE-REQUISITES

Team ID	PNT2022TMID53349
Project Name	Car Resale value Prediction

1. SOFTWARE REQUIREMENTS

1.1 Visual Studio Code

A standalone source code editor that runs on Windows, macOS, and Linux. The top pick for JavaScript and web developers, with extensions to support just about any programming language. Visual Studio Code is a source-code editor that can be used with a variety of programming languages, including Java, JavaScript, Go, Node. js, Python, C++, C, Rust and Fortran. It is based on the Electron framework, which is used to develop Node. js web applications that run on the Blink layout engine.

Visual Studio Code IDE

1.2   Node Package Manager

Node Package Manager (NPM) is a command line tool that installs, updates or uninstalls Node. js packages in your application. It is also an online repository for open-source Node. js packages. The node community around the world creates useful modules and publishes them as packages in this repository.

Node Package Manager
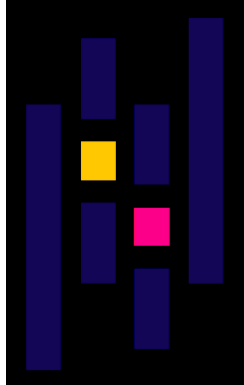
2.   PACKAGES REQUIRED

2.1   NumPy

NumPy is a Python library used for working with arrays. It also has functions for working in the domain of linear algebra, fourier transform, and matrices. NumPy arrays are faster and more compact than Python lists. An array consumes less memory and is convenient to use. NumPy uses much less memory to store data and it provides a mechanism of specifying the data types. This allows the code to be optimized even further.
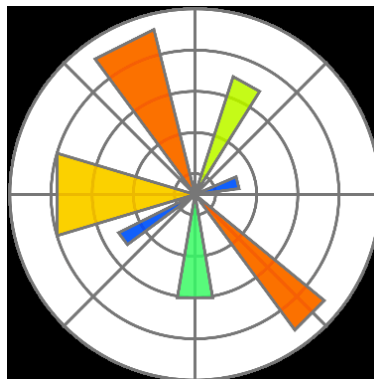

Numpy Version 1.21.5

2.2   Pandas

Pandas is a software library written for the Python programming language for data manipulation and analysis. In particular, it offers data structures and operations for manipulating numerical tables and time series. It is free software released under the three-clause BSD license

Pandas Version 1.2.4

2.3   Matplotlib

Matplotlib is a cross-platform, data visualization and graphical plotting library for Python and its numerical extension NumPy. As such, it offers a viable open-source alternative to MATLAB. Developers can also use matplotlib's APIs (Application Programming Interfaces) to embed plots in GUI applications.

Matplotlib

2.4   Scikit-learn

Scikit-learn is a free machine learning library for Python. It features various algorithms like support vector machine, random forests, and k-neighbours, and it also supports Python numerical and scientific libraries like NumPy and SciPy. Scikit-learn is a popular and robust machine learning library that has a vast assortment of algorithms, as well as tools for ML visualizations, preprocessing, model fitting, selection, and evaluation.
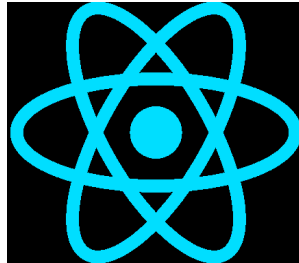

Scikit-learn

2.5   Flask

Flask is a micro web framework written in Python. It is classified as a microframework because it does not require particular tools or libraries. It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions.

2.6 ReactJS

React is a declarative, efficient, and flexible JavaScript library for building user interfaces. It lets you compose complex UIs from small and isolated pieces of code called "components". React has a few different kinds of components, but we'll start with React.Component subclasses: class ShoppingList extends React.

ReactJS