PRIOR KNOWLEDGE

Date	7 November 2022
Project Name	Early Detection of Chronic Kidney Disease Using Machine Learning.
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Before beginning the project, one should have knowledge about the following terms and concepts:

Supervised and unsupervised learning:

Supervised learning, also known as supervised machine learning, is a subcategory of machine learning and artificial intelligence which uses labeled datasets to train algorithms to classify data or predict outcomes accurately.

Unsupervised learning, also known as unsupervised machine learning, is a subcategory of machine learning and artificial intelligence which uses unlabeled datasets to classify or predict data. These algorithms discover hidden patterns or data groupings without the need for human intervention. It has the

ability to discover similarities and differences in information making it an ideal solution for exploratory data analysis, crossselling strategies, customer segmentation, and image recognition.

Regression Classification and Clustering :

Clustering is an unsupervised technique. With clustering, the algorithm tries to find a pattern in data sets without labels associated with it.

In contrast to clustering, classification is a supervised technique. Classification algorithms look at existing data and predicts what a new data belongs to.

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Logistic Regression :

Logistic regression is basically a supervised classification algorithm. In a classification problem, the target variable(or output), y, can take only discrete values for a given set of features(or inputs), X.

Contrary to popular belief, logistic regression is a regression model. The model builds a regression model to predict the probability that a given data entry belongs to the category numbered as “1”.

Decision Tree Classifier:

Decision Trees are a type of Supervised Machine Learning (that is you explain what the input is and what the corresponding output is in the training data) where the data is continuously split according to a certain parameter. The tree can be explained by two entities, namely decision nodes and leaves. The leaves are the decisions or the final outcomes. And the decision nodes are where the data is split.

Lagrangian Support Vector Machine:

LSVM is a fast technique for training support vector machines (SVMs), based on a simple iterative approach. The support vector machine is designed to discriminate data points belonging to two different classes. One set of points is labelled as +1 also called the positive class. The other set of points is labeled as -1 also called the negative class.

Flask:

Flask is a web application framework written in Python. It was developed by Armin Ronacher, who led a team of international Python enthusiasts called Pocco. Flask is based on the Werkzeg WSGI toolkit and the Jinja2 template engine. Both are Pocco projects. Flask is used for developing web applications using python. There is a built-in development server and a fast debugger provided.