Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID53288
Project Name	Project - Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

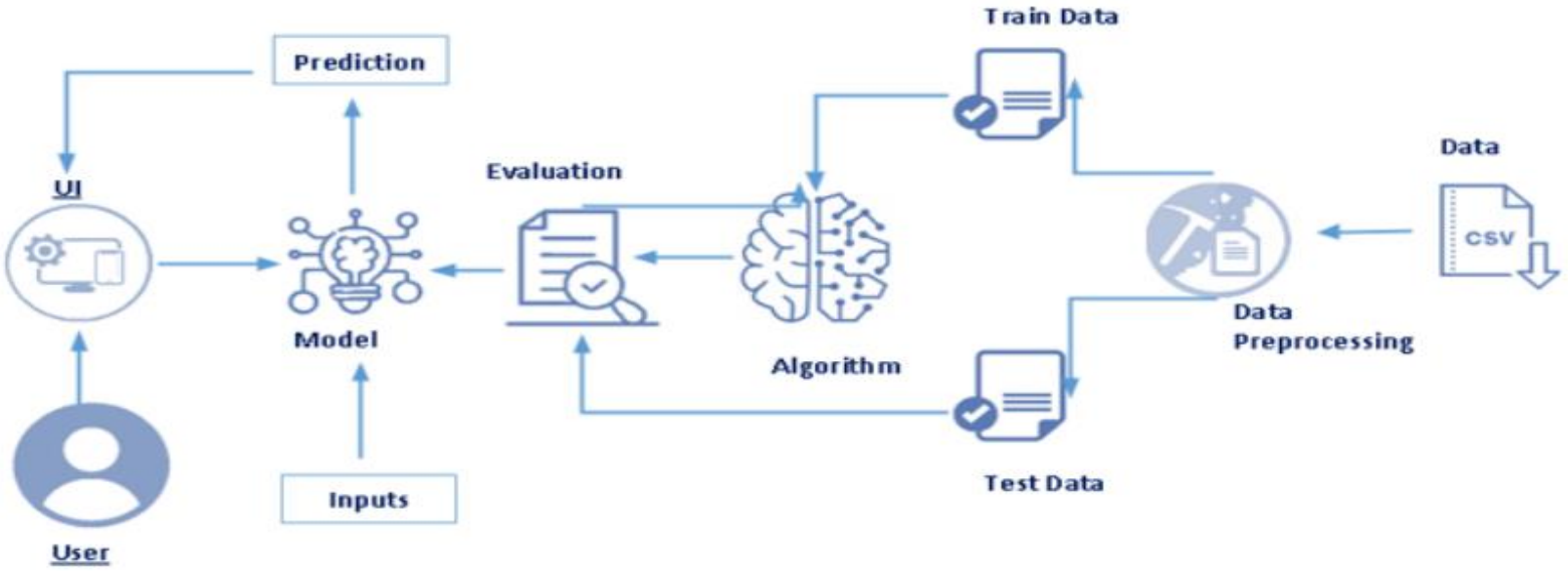

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Import Data	Data Import lets you upload data from external sources and combine it with data you collect via Analytics.	Python: Numpy, Pandas
2.	Clean the data	Data cleaning is the process of fixing or removing incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data within a dataset.	Python
3.	Pre-process the data	Data pre-processing is a step in the data mining and data analysis process that takes raw data and transforms it into a format that can be understood and analyzed by computers and machine learning.	Python
4.	Train the data	Training data is used to teach prediction models that use machine learning algorithms how to extract features that are relevant to specific business goals.	Python
5.	Test the data	Test Data in Software Testing is the input given to a software program during test execution. It represents data that affects or affected by software execution while testing.	Python
6.	Machine Learning Model	A machine learning model is a file that has been trained to recognize certain types of patterns. You train a model over a set of data, providing it an algorithm that it can use to reason over and learn from those data	Python
7.	Check Performance Efficiency	The model evaluation is a great way to monitor your model's outcome between different versions.	Python
8.	Improvise the model	In machine learning, the term model accuracy refers to the measurements made to decide whether or not	Python

		a certain model is the best to describe the relationship between the different problem variables.	

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Data Collection	Data collection is the procedure of collecting, measuring and analyzing accurate insights for research using standard validated techniques.	Python: Numpy, Pandas
2.	Train and test the data	Train/Test is a method to measure the accuracy of your model.It is called Train/Test because you split the the data set into two sets: a training set and a testing set.	Technology used
3.	Predict the accurate result	Predict whether the person is affected by CKD or not accurately	Technology used
4.	Display the result	The predicted result gets displayed	Technology used