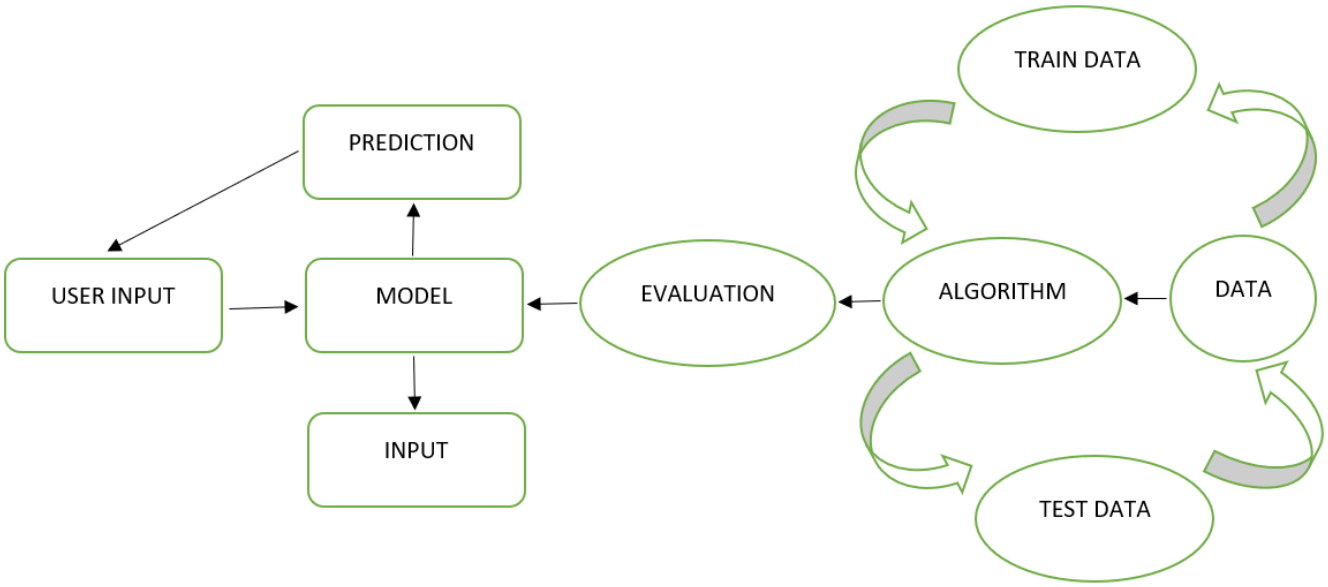
TECHNOLOGY STACK (ARCHITECTURE AND STACK)

DATE	31 OCTOBER 2022
TEAM ID	PNT2022TMID04563
PROJECT NAME	Early Detection of Chronic Kidney Disease Using Machine Learning
TOTAL MARKS	4

TECHNICAL ARCHITECTURE



SNO	COMPONENTS DESCRIPTION	TECHNOLOGY
1	User Interface – User can interact with our application through web User Interface.	HTML, CSS and Python flask.
2	Application Logic - Test Vitals Form will be shown once logged in , when the user clicks on the test vital form button he/she will be directed to the form page to enter the vitals for prediction.	Front end- HTML ,CSS MySQL, Python flask Back end - Python
3	Database Data type - String and Numeric.	MySQL.
4	Machine Learning Model gets the data from the user and predicts the data with tested and trained dataset models.	Data Recognition Model etc.
5	Cloud Database Service on Cloud	IBM.

Description Technology

1. Open-Source Frameworks Python Script, Java script , python , HTML, CSS & MySQL.
2. Security Implementations -Makes sure that data that is transferred is secured.
3. Scalable Architecture -Provided with more prediction and one reliable solution.
4. Availability -Real time application.
5. Performance- We will be able to send huge amount of data and wireless connectivity.

Application characteristics

S.NO	CHARACTERISTICS	DESCRIPTION	TECHNOLOGY
1	Open sources framework	Frameworks used	Jupyter
2	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SHA-256, Encryptions, IAM Controls, OWASPetc.
3	Scalable Architecture	Scalability of architecture	3-tier architecture
4	Availability	Availability of application	Use of cloud services which use load balances
5	Performance	Design consideration for the performance of the application	Number of requests per second is 5. Cache is used for fast access