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

Date	22 October 2022
Team ID	PNT2022TMID26456
Project Name	Project – Early detection of chronic kidney disease using Machine Learning.
Maximum Marks	4 Marks

Technology Architecture

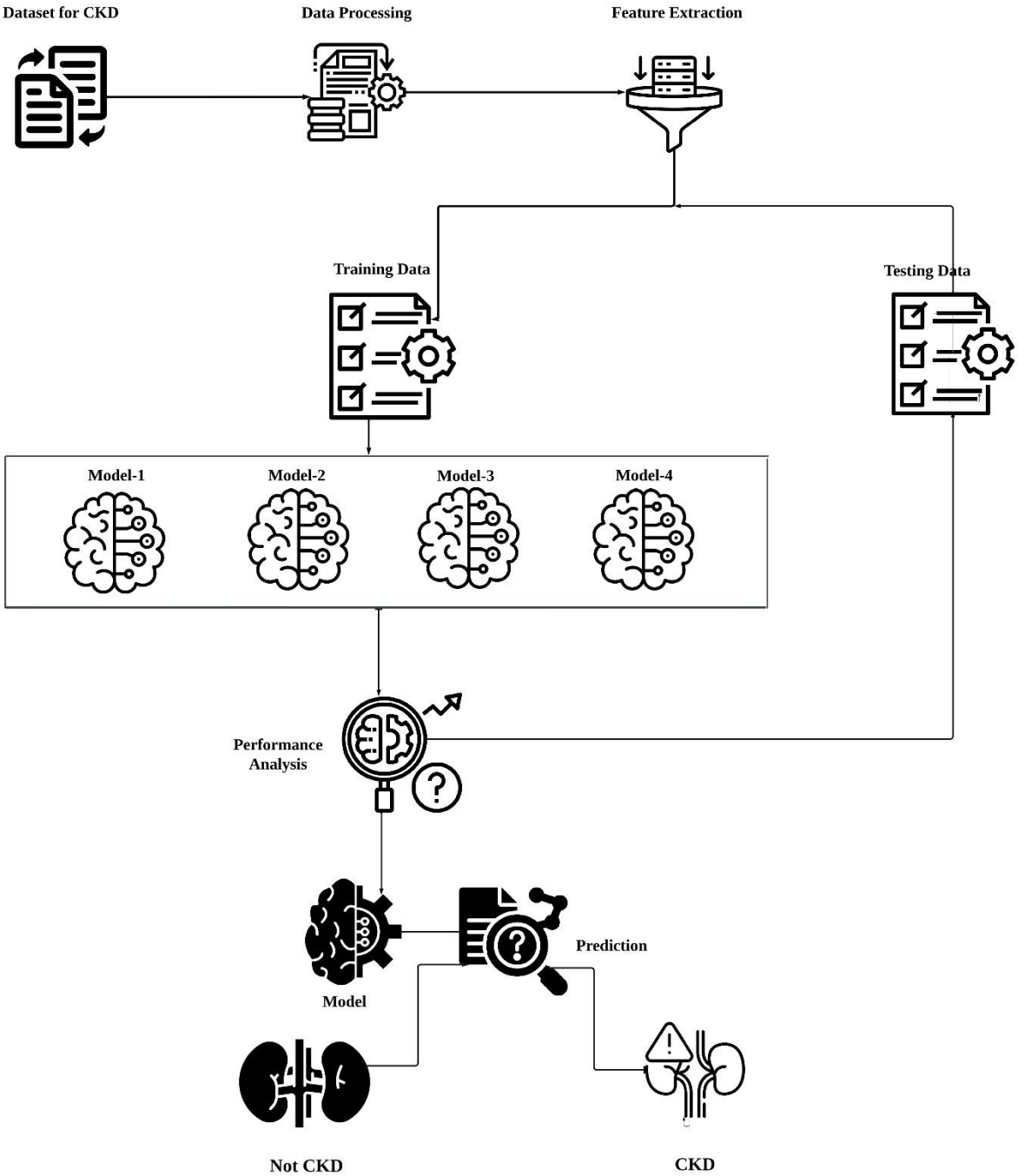

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI	HTML, CSS, JavaScript
2.	User Registration	Logic for new user to register in the application.	Python
3.	User Login	Logic for a existing user to enter into the application	Python
4.	Reset Password	Logic for user to change password in the application	Python.
5.	Database	Data Type, Configurations etc.	Sqlite3
6.	Cloud Database	Database Service on Cloud	IBM DB2.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	Machine Learning Model	To predict the result	Classification models.
9.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	IBM Cloud.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Jupyter notebook and Flask.
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	IAM
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	3 tier architecture
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	IBM watson services.
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	IBM cloud.