

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

Date	15.10.2022
Team ID	PNT2022TMID14240
Name	Harini.G
Project Name	Project – Early Detection of Chronic Kidney Disease using Machine Learning
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



- GUIDELINE:**
1. Include all the processes (As an application logic / Technology Block)
 2. Provide infrastructural demarcation (Local / Cloud)
 3. Indicate external interfaces (third party API's etc.)
 4. Indicate Data Storage components / services
 5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component Description	Technology
1.	User Interface User interact with our application through web User Interface.	HTML, CSS and Python flask.
2.	Application Logic-1-Login. When the user click on the login button , he/she is directed to login page, if they are registered already.	HTML ,CSS, Python flask.
3.	Application Logic-Registration When the user click on the Register button , he/she is directed to Register page for further process.	HTML,CSS, Python flask.
4.	Application Logic-Test Vitals Form After Logged in , when the user click on the test vital form button ,he/she directed to the form page to enter the vitals for prediction.	Front end- HTML ,CSS ,MySQL,Python flask Backend-Python
5.	Database Data type - String ,Numeric.	MySQL.
6.	Cloud Database Database Service on Cloud	IBM.
7.	File Storage File storage requirements	NIL
8.	External API-1 Purpose of External API used in the application	NIL
9.	External API-2 Purpose of External API used in the application	NIL
10.	Machine Learning Model Get the data from the user and predict the data with tested and trained dataset models	Data Recognition Model, etc.
11.	Infrastructure (Server / Cloud) Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	NIL

Table-2: Application Characteristics:

S.No	Characteristics Description	Technology
1.	Open-Source Frameworks International Business Machines.	NIL
2.	Security Implementations Access permission for login page using CAPTCHA	Encryptions.
3.	Scalable Architecture The key of Three tier architecture is improving scalability.	Three Tier architecture.
4.	Availability Load balancer or ADC is the key component that ensures high availability by sending request.	Load balancer.
5.	Performance The system should be able to handle large number of users at the time	Load balancer.