

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

Date	15 October 2022
Team ID	PNT2022TMID44196
Project Name	Estimate the Crop Yield using Data Analytics
Maximum Marks	4 Marks

Technical Architecture:

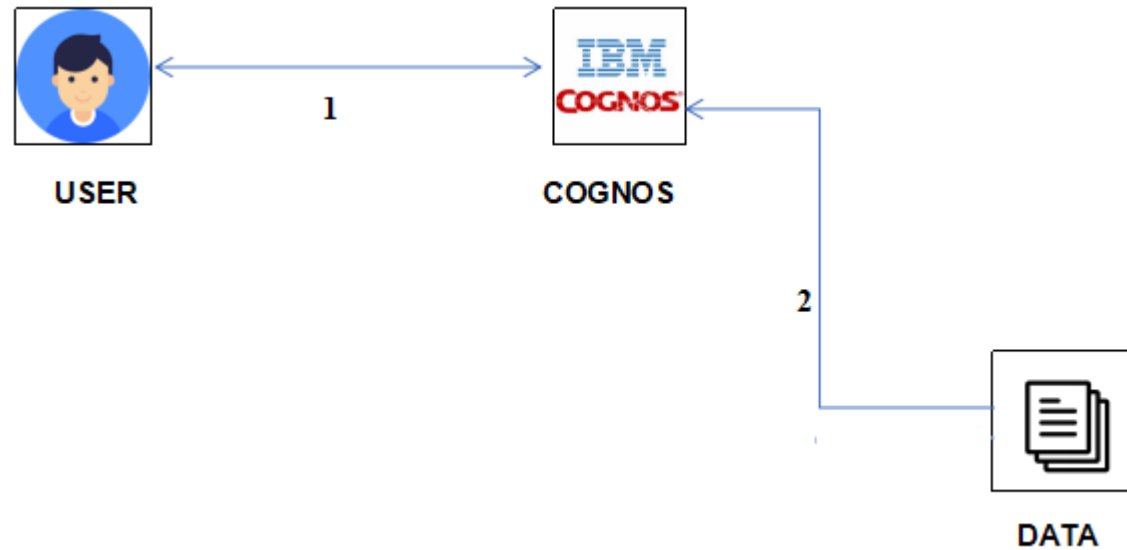


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	IBM Cognos
4.	Application Logic-3	Logic for a process in the application	IBM Watson
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloud
7.	File Storage	File storage requirements	IBM Block Storage

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Convolutional Neural Networks Recurrent Neural Networks.	Artificial Intelligence,Machine Learning,Deep Learning
2.	Security Implementations	Checks if the software has vulnerabilities and if any, fix them.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Scalability is maximum due to accurate estimation.	Sentinal-2 time series and Temporal Convolutional Network
4.	Availability	It is available for farmers to predict the estimation of crops.	Remote sensing data fusion model
5.	Performance	Checks for speed, stability and reliability of the software, hardware or even the network of the system under test.	Hardware and support system,Software applications

