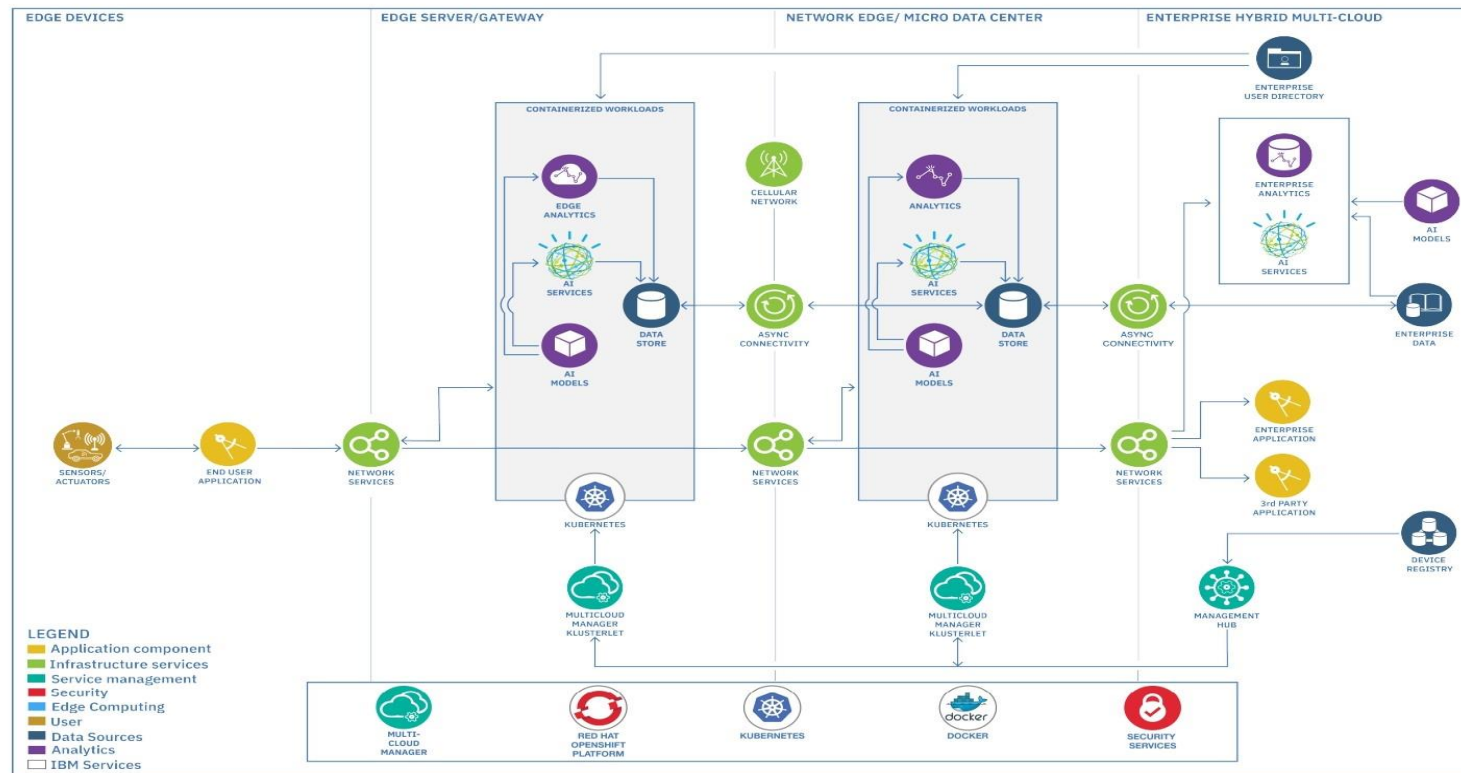


## Project Design Phase-II Technology Stack (Architecture & Stack)

Date	19 October 2022
Team ID	PNT2022TMID27387
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	Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Perform the functions	Java / Python
3.	Application Logic-2	User interface between developer and user	IBM Watson STT service
4.	Application Logic-3	Developer updates data upto time	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local Filesystem
8.	External API-1	Displays the information about the field	IBM Weather API, etc.
9.	External API-2	Conformation of the user	Aadhar API, etc.
10.	Machine Learning Model	Recognizes the current area and passes the information	Object Recognition Model, etc.
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

**Table-2: Application Characteristics:**

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	<b>IBM® Cognos® Framework Manager</b>	Technology of Opensource framework
2.	Security Implementations	LDAP or Active Directory.	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	Availability for everyone	Application development

S.No	Characteristics	Description	Technology
4.	Availability	Play store or other app stores	Free source apps
5.	Performance	One user per application	Technology used

#### References:

<https://c4model.com/>

<https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/>

<https://www.ibm.com/cloud/architecture>

<https://aws.amazon.com/architecture>

<https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d20c9fda90d>