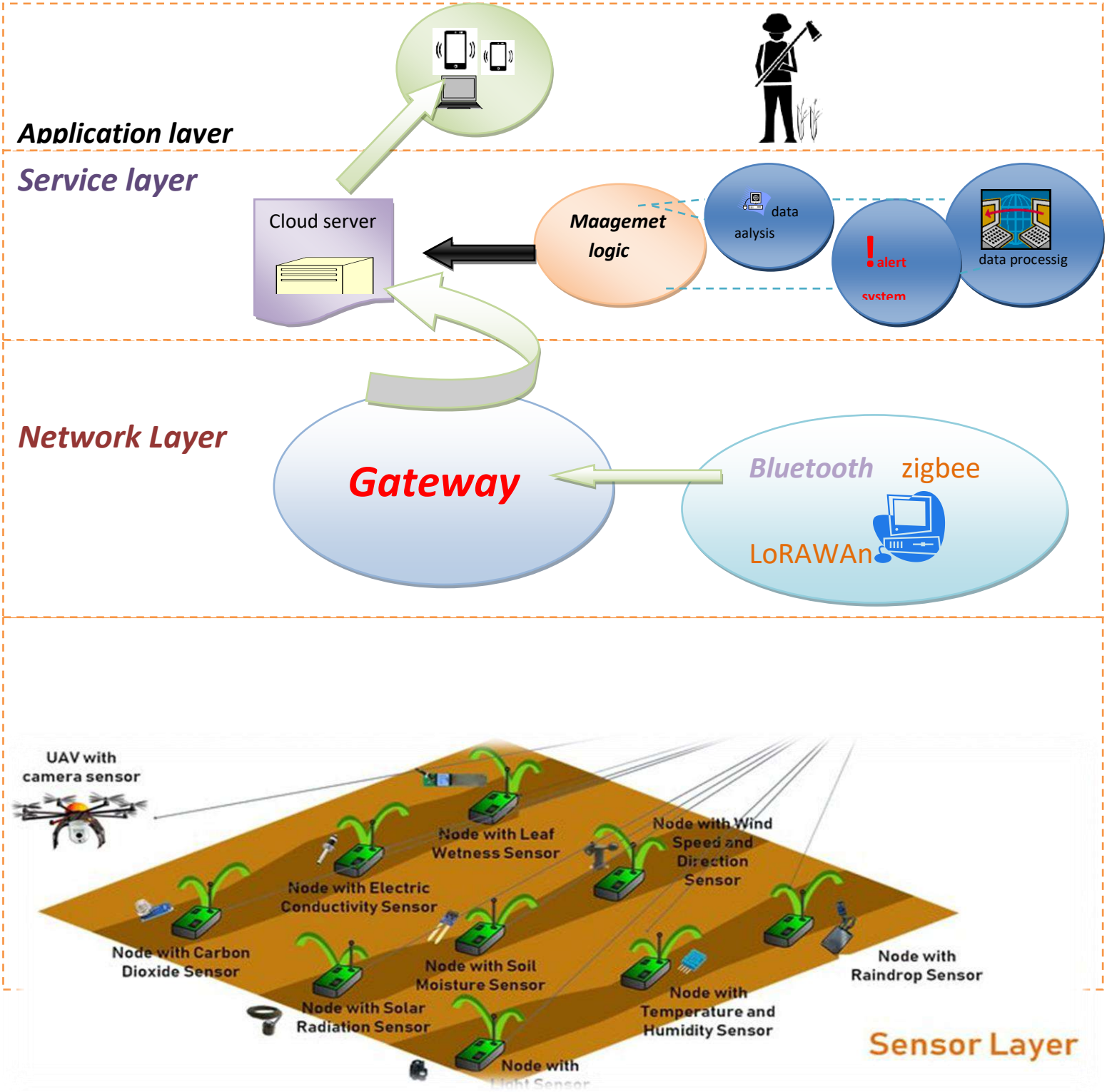
TECHNICAL ARCHITECTURE

TEAM ID	PNT2022TMID47605
PROJECT NAME	SMART FARMER-IOT ENABLED SMART FARMING
MAXIMUM MARKS	4 MARKS



Technical Architecture:

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

References:

*:*https://www.researchgate.net/publication/335362251_An_Architecture_model_for_Smart_Farming

Guidelines:

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**	*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*	***Java / Python***
3.	**Application Logic-2**	*Logic for a process in the application*	***IBM Watson STT service***
4.	**Application Logic-3**	*Logic for a process in the application*	***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**	*Purpose of External API used in the application*	***IBM Weather API, etc.***
9.	**External API-2**	*Purpose of External API used in the application*	***Aadhar API, etc.***
10.	**Machine Learning Model**	*Purpose of Machine Learning Model*	***Object Recognition Model, etc.***
11.	Infrastructure (Server / Cloud)	***Application Deployment on Local System / CloudLocal Server Configuration: Cloud Server Configuration :***	***Local, Cloud Foundry, Kubernetes, etc.***

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	**Technology of Opensource framework**
2.	Security Implementations	List all the security / access controls implemented,use of firewalls etc.	**e.g. SHA-256, Encryptions, IAMControls, OWASP etc.**
3.	**Scalable Architecture**	**Justify the scalability of architecture (3 – tier,Micro-services)**	**Technology used**
4.	**Availability**	**Justify the availability of application (e.g. use ofload balancers, distributed servers etc.)**	**Technology used**
5.	**Performance**	**Design consideration for the performance of theapplication (number of requests per sec, use of Cache, use of CDN's) etc.**	**Technology used**