SMART FARMER – IOT ENABLED SMART FARMING APPLICATION.

CONTENTS:

WELCOME:

- We express our warm welcome to this Project demonstration session “Professional Readiness for Innovation, Employability, and Entrepreneurship” program from the “NALAIYA THIRAN” scheme, executed by IBM.

- We welcome all the industry mentors, Faculty mentors , Industry evaluators and Faculty evaluators for our virtual presentation.

- First of all We would like to thank each and everyone behind this program for providing this wonderful opportunity to enhance our skills,

TEAM DETAILS:

TEAM ID : PNT2022TMID30034

TEAM MEMBERS:

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DEEKSHA KUMARI . S

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MENTOR

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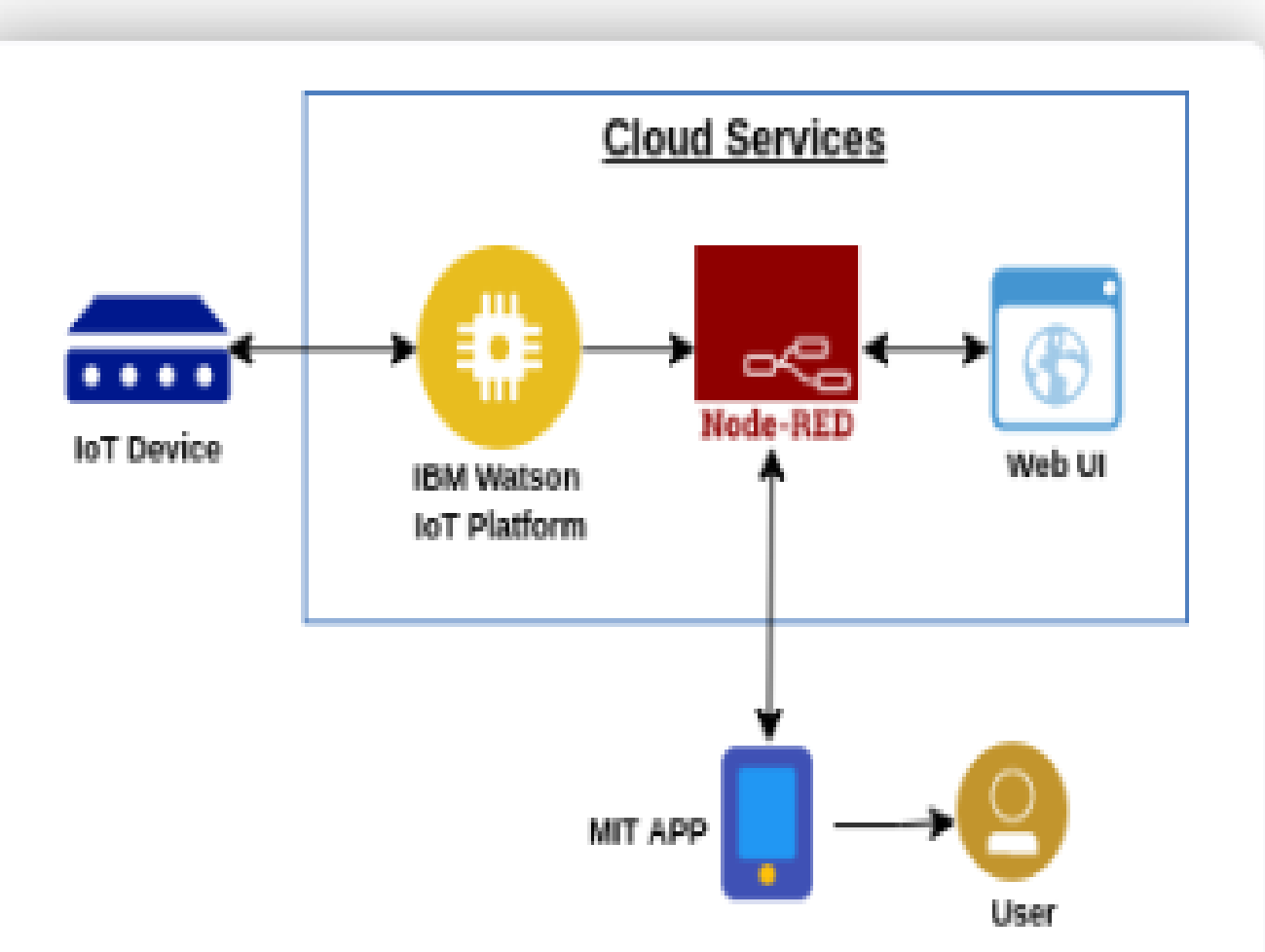
PROBLEM STATEMENT:

- Lack of Weather monitoring is an main factor that affects farming because sudden climate change may result in the wastage of crops and reduce yield.
- Manual work results in some difficulties for farmers because they have to spend more time on their farms.
- Manual crop monitoring is less effective than smart monitoring because they have to spend their time and energy while monitoring their farms
- Farmers are facing difficulties to prevent their crops from wild animals.
- Excess watering of crops in irrigation can cause plants to spoil because sometimes farmers forgets to switch OFF the motor, and similarly the dryness of soil may cause crops to spoil while failing to switch ON the motor when water is required for the farm.

PROPOSED SOLUTION :

- In our project moisture level, temperature, humidity, Object distance, and weather conditions will be displayed in our application.
- The login process is easy and effective as our application is user-friendly.
- The user can also able On/off the motor and light from anywhere using our application.
- Email Id of the user will be stored in our database(Firebase DB) which they entered during the signup process.
- Automatic email will be sent to the user when moisture is below 30%(Turn on motor) and above 60%(Turn off motor) and if any object is less than or equal to 100m around their field then the user will get an email notification as (someone is near your field).

TECHNICAL ARCHITECTURE :



WORKING DEMO OF THE PROJECT

- **Drive link: https://drive.google.com/folderview?id=16pYenVGFJjCHUg1VVYJ-Bsw05yWF-HLl&usp=gmail**
- **You tube link: https://youtu.be/uKvMROhzZAY**

PERFORMANCE METRICS(RESULT):

- Our Application is simple and user friendly.
- By using this smart farming application farming can be done effectively.
- Watering of crops can be done easily from anywhere by using smart switches.
- Able to Save crops from animals by using light during night(As the light is glowing animals will assume that some human will be there in field)
- Weather can be known before and can take prevention methods prior can save wastage of crops and increases productivity.

SCALABILITY/FUTURE SCOPE:

- Instead of normal light using UV light we can attract insects and trap it to save crops.
- Using Image processing concepts we can able to save crops from animals by capturing their images and giving alarms.
- Using the same image processing concept we can capture images of crops to identity diseases.

THANKS:

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And we also extends our gratitude to our College SPOC, our industry mentors, faculty mentors, faculty evaluators, industry evaluators and our team members for their support.