PROJECT OBJECTIVES

DATE	**19 NOVEMBER 2022**
TEAM ID	**PNT2022TMID48639**
PROJECT TITLE	**IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE.**

The projects will be:

- Gain knowledge of Watson IoT Platform
- Connecting IoT devices to the Watson IoT Platform and exchange the sensor data.
- Gain knowledge on Cloud ant DB.
- Gain knowledge on using the Clarifai service.
- Gain knowledge of storing images in IBM object storage and retrieving images.
- Creating a web application through which the user interacts in the devices.

Project flow:

- The device will detect the animals and bird suing the Clarifai service.
- If any animal or bird is detected the image will be captured and stored in the IBM cloud object service.
- It also generates an alarm and avoid animals and birds from demonstrate the crop.
- The image URL will be stored in the IBM Cloud ant DB service.
- The device will also monitor the soil moisture level, temperature, and humidity values and send them to the IBM IOT platform.
- The image will be retrieved from object storage and displayed in the web application.

- A web application is developed to visualize the soil moisture, temperature, and humidity values. Users can also control the minters though web applications to accomplish this, we have to complete all the activities and tasks listed below:
    - Create and configure IBM cloud services
    - Create a device & configure the IBM platform create Node RED service.
    - Create a database in Cloud ant DB to store location data.
        - Create a cloud object storage service and create a bucket to storage the images.
    - Develop a python script to publish the sensor parameters like temperature Humidity, and Soil moisture to the IBM IoT platform and detect he animals and birds in the video streaming using Clarify.
    - Develop a web application using Node-RED service, Display the image in the Node-RED web UI and also display the temperature humidity and soil moisture levels.
    - Integrate the buttons in the UI to control the motors .