PROJECT OBJECTIVE

TEAM ID	PNT2022TMID10184
PROJECT NAME	IOT Based Smart Crop ProtectionSystem for Agriculture

Our goal is to optimize various farming processes by utilizing information and data technology. The emphasis is on data availability and how farmers may make good use of the information. The goal is to improve product quality and quantity while increasing human labour productivity. Alternatively, producing more food with less money and the same quantity of land. Smart agricultural technology mostly consists of IoT and robots. Farmers may use these tools to monitor agricultural conditions without having to go out into the field. They can then make decisions for the entire farm, a lot, or even a single plant. Our concept is not limited to large agricultural operations. It may also aid small enterprises such as family farms and organic farms. The entire farming process is software-managed and sensor-monitored, resulting in cheaper overall pricing, higher overall yield, better quality, and, ultimately a better consumer experience. Automation has increased manufacturing efficiency, quality, and sustainability significantly

Project Flow:

- The device will detect the animals and birds using the Clarifai service
- If any animal or bird is detected the image will be captured and stored in the IBM Cloud object storage.
- It also generates an alarm and avoid animals from destroying the crop
- The image URL will be stored in the IBM Cloudant DB service
- The device will also monitor the soil moisture levels, 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 motors through web applications.