Project main goal and outcome:

The main goal of this project is to develop a smart greenhouse system that can help farmers optimize crop growth and yield by monitoring and controlling environmental factors such as temperature, humidity, and soil moisture. The system will provide real-time data and analytics to help farmers make informed decisions about crop management. The outcome of the project will be a scalable and customizable smart greenhouse system that can be used for a variety of crops and growing conditions.

Project application:

The project application is to provide a tool for farmers to optimize crop growth and yield by automating and monitoring environmental factors in a greenhouse. The system will help farmers to reduce waste, save resources, and increase profitability.

Product features:

1- Automated control: The system will use actuators, such as fans, heaters, and watering systems, to automate the control of environmental factors based on predefined thresholds and crop requirements.

2- Environmental monitoring: The system will use a network of sensors to monitor environmental factors such as temperature, humidity, and soil moisture in real-time.

3-Monitoring the system state remotely : the system will send the status of the green house to a mobile application server so the owner can follow up the status of his greenhouse by a mobile application .