**Detail of implementation steps:**

System Design and Planning:

* Define the requirements and objectives of the irrigation system.
* Determine the number and placement of sensors, including temperature and humidity sensors and soil moisture sensors.
* Identify the appropriate pump for delivering water to the plants.

Hardware Setup:

* Connect the ESP32 microcontroller to the sensors and pump.
* Ensure proper wiring and connections between the components.
* Power the system using a suitable power supply or consider using alternative energy sources like solar panels.

Software Development:

* Set up the development environment for programming the ESP32 microcontroller.
* Write the code to read sensor data from the temperature and humidity sensor and soil moisture sensor.
* Implement algorithms to analyze the sensor data and make intelligent irrigation decisions.
* Develop the logic for controlling the pump based on the analysis results.

Testing and Debugging:

* Upload the software code to the ESP32 microcontroller.
* Test the system by monitoring sensor readings and observing the pump's behavior.
* Debug any issues or errors encountered during testing.
* Make adjustments to the code or hardware connections as needed

Deployment and Maintenance:

* Install the system in the desired location, ensuring proper placement of sensors and the pump.
* Regularly monitor the system's performance and address any issues that arise.
* Conduct periodic maintenance tasks such as cleaning sensors, checking wiring connections, and updating software as needed.