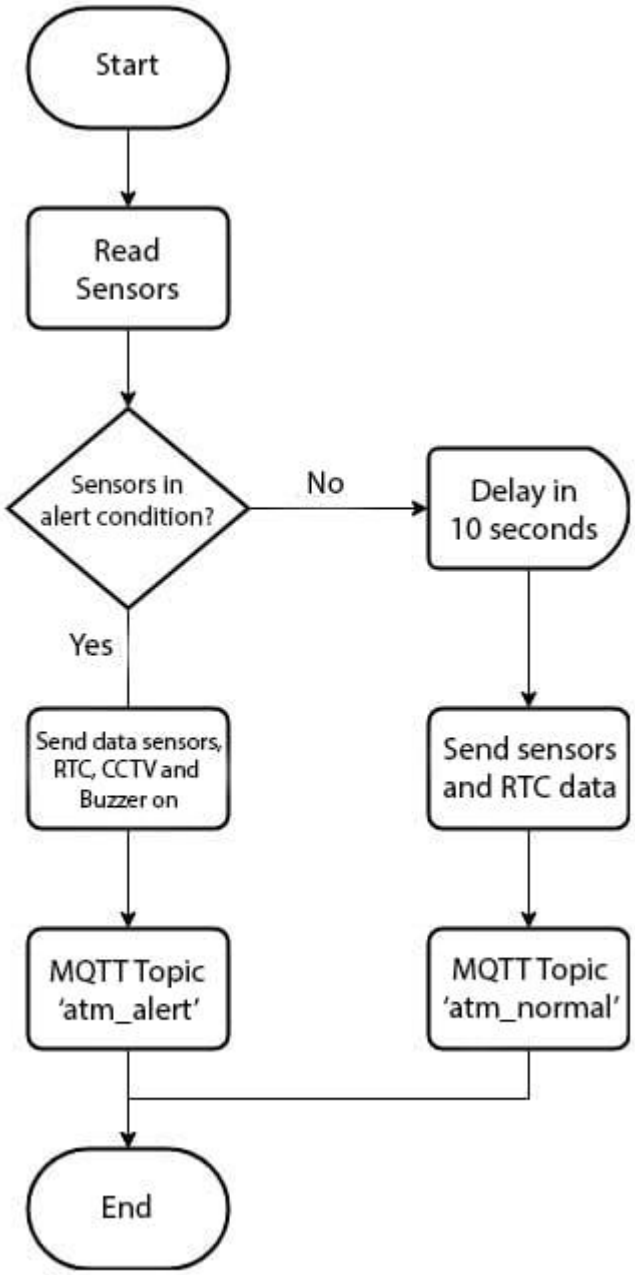
PROJECT DESIGN PHASE -2

DATA FLOW DIAGRAM AND USER STORIES

Date	15 October 2022
Team ID	PNT2022TMID19096
Project Name	Project - IOT Based Smart Crop Protection for Agriculture
Maximum Marks	4 Marks


Start
Read Sensors
Sensors in alert condition?
No
Delay in 10 seconds
Yes
Send data sensors, RTC, CCTV and Buzzer on
Send sensors and RTC data
MQTT Topic 'atm_alert'
MQTT Topic 'atm_normal'
End

Smart Phone Sensors	Purpose	Common Agriculture Uses
Image Sensors (Camera)	Take pictures of any object, focuses lens	Disease detection, Chlorophyll status, Fruit ripeness , Leaf Area Index (LAI), Harvest Readiness, Soil erosion and other analysis
GPS	Provides location, measuring the latitude and longitude of device	Location information is attached to generate alerts. Mostly used for machine driving and tracking, land management, crop mapping
Microphone	Detects usual/ unusual sound and convert to electrical signals	Machine maintenance, bug detection, to make audio queries
Accelerometer	Measures acceleration forces that used to observe the tilting motion and orientation of object	Precise movement or rotation of camera during use. Detect worker or machine activities
Gyroscope	Senses the angular velocity to track the object rotation or twist	Equipment movement, canopy structure measurement
Barometer	Measures air pressure as an altimeter. Mostly used in correcting altitude measurements by the GPS	Measures the elevation height in hilly agriculture
Inertial Sensor	Inertial Sensor Uses accelerometer and gyro to determine the object altitude in relation to the inertial system	Precise distance of plant, leave or any other object is measured from camera.