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Higher School of Communication of Tunis

SCOPE STATEMENT
CLOUD OF THINGS PROJECT

SMART IRRIGATION MONITORING SYSTEM

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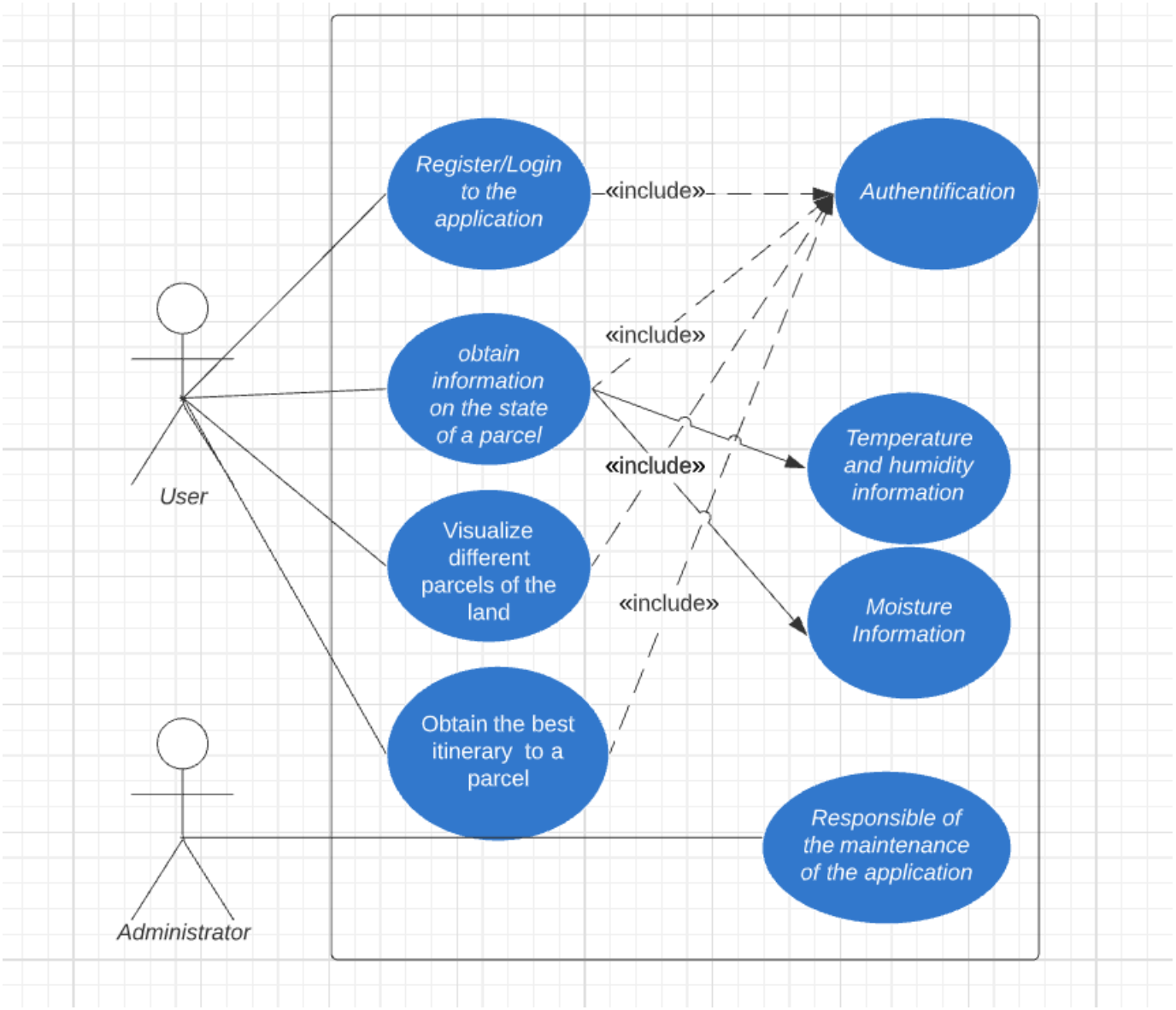
I. PROBLEM STATEMENT

Agriculture is one of the key economical sectors in Tunisia, in 2018, it generated 10.4% of the national GDP and provided 15% of employment. With the climate changes and the consecutive heatwaves that we are facing these years, the traditional irrigating techniques are becoming insufficient and the farmer should pay extra attention to its crop. Therefore a new approach should be implemented to avoid crop spoilage and water wastage.

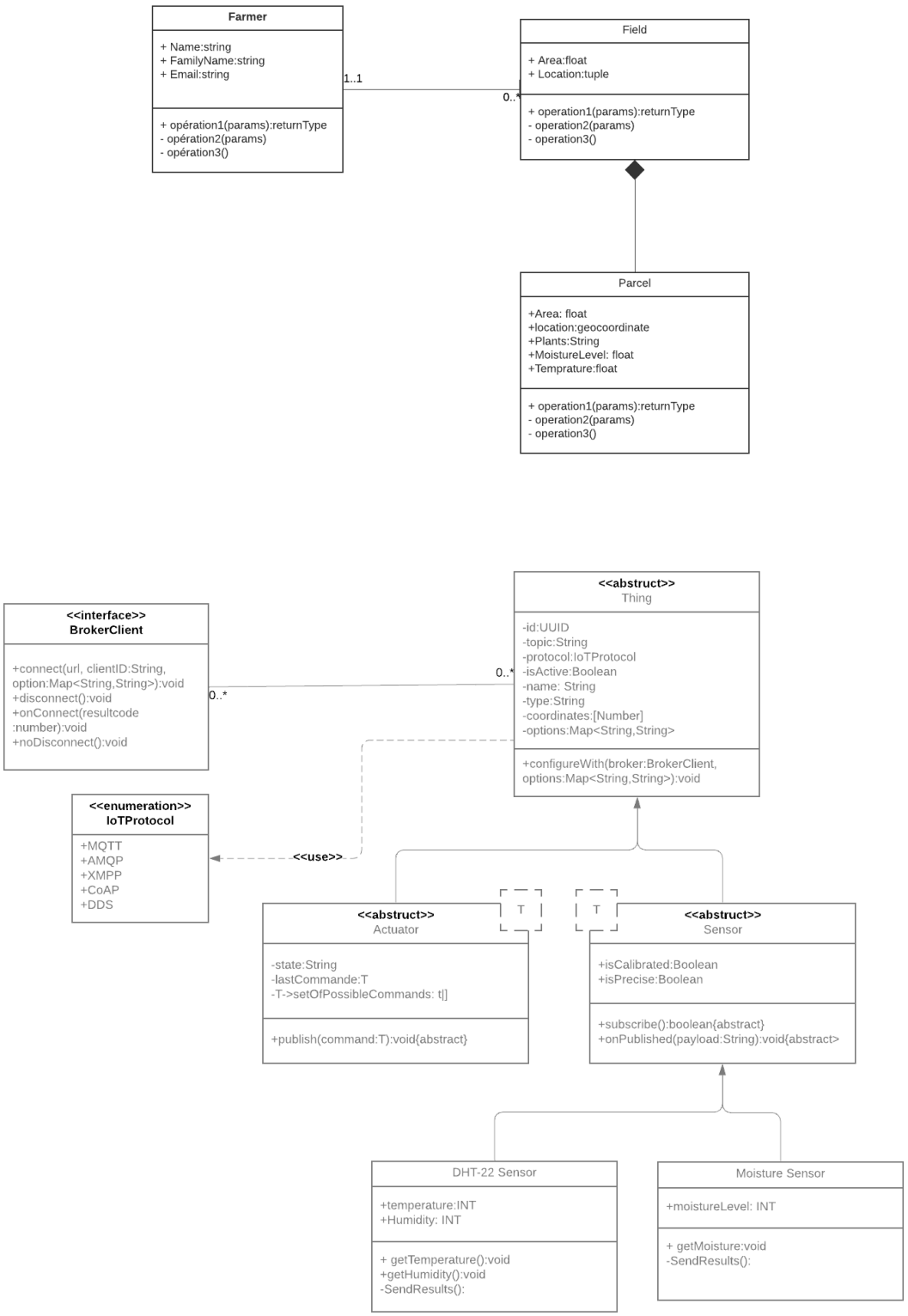
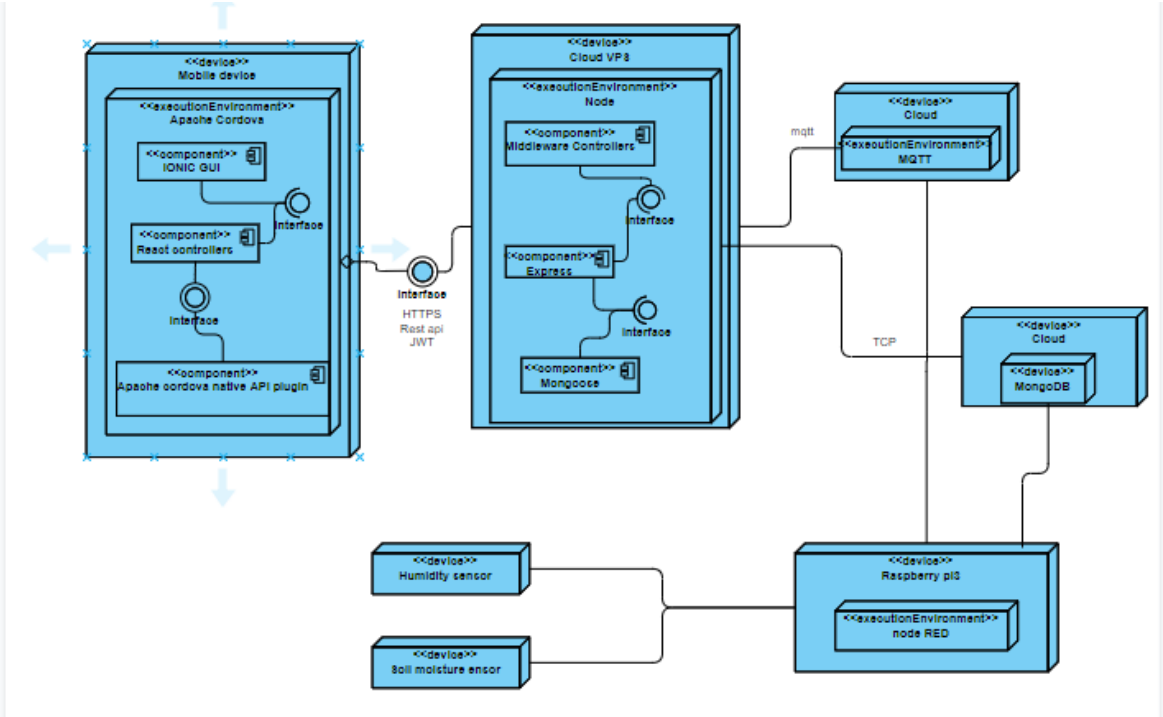
II. PROPOSED SOLUTION

To properly manage the field irrigation we propose a solution based on sensors that measures the soil moisture and temperature, those measurements will help decide if the field needs to be watered.
A mobile application is also a part of the solution.
The application presents the following functionalities:
- Registration / authentication
- Locate the field on the map and precise the diffrent parcels
- Displays information retrieved via an agriculture api on the parcel's characteristics.
- Displays the sensors measurements statistics
- Displays a notification in case the moisture level goes beneath a certain threshold.
-Display the itinerary to a specific parcel

1-USE CASE DIAGRAM



1-CLASS DIAGRAM



2-DEPLOIMENT DIAGRAM