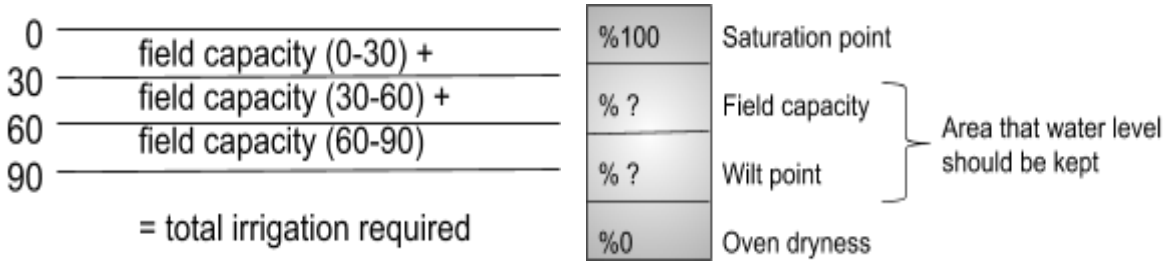
Research Interview for Requirements

1. The target in our project is potted and garden plants. What should be the watering hours?
    - *Since agricultural irrigation is evaporation, the most effective yield is taken in the morning sunrise and in the evening hours. Weather conditions are of great importance in this case. Evaporation is less in winter and watering is too low because the soil keeps moisture in winter. In the summer period, evaporation is high and therefore watering should be done at appropriate times.*
2. What commands should the user provide to the system via SMS? What informations are expected to request?
    - *First of all, soil moisture is one of the most important issues for the plant and it should be shown on the screen.*
    - *Total amount of water used can be shown(daily, weekly, monthly and all-time sum)*
    - *Automatic watering can sometimes cause undesirable problem, so it can allow manual control.*
    - *The soil moisture sensor should be preferred with the needle foot. This type of sensor loses its sensitivity over time and is always important to use a good sensor.It can be used for longer life, less deviation, and more conductivity (DEKAGON GS1 Model with needle foot).*
    - *GSM can be used instead of bluetooth / wifi. Maybe it can be an app.*

3. The only sensor that we use for the earth values is the humidity sensor. Do you think this is enough for efficient irrigation?
    - *Since the target is potted and garden only the soil moisture sensor is sufficient. But deviations need to be calculated well. The quality of the sensors used is very important, and although they can have the little deviation will affect the plants.*



    - *Another important issue for irrigation is the equal watering of the layers. As mentioned above, the moisture level of all layers must be checked, not just the 0-30m range. If not controlled, yielding irrigation will not occur and the plant will dry out from the roots. Because the target is the flower pot and garden, you will not prefer the deep root plants. That's why it will not be an obstacle about layers.*

4. In our project, there is a light-dependent sensor for the solar panel to follow the sun. Can this light sensor be used for irrigation efficiency other than solar monitoring?
    - *It's nice that you use your system with electricity from solar energy. It has added an environmental aspect to this project. There are more than one irrigation method. For example measuring soil, measuring plant and watering via seasonal measurements. Your irrigation model has that depends on the soil. Therefore you can only produce energy from the sun.*

5. There are 16x2 LCD screens in our project. Which information is important for the user?
    - *LCD can show a faulty sensor if an error occurs.*
    - *Humidity.*
    - *Graph of the amount of water used.*
    - *Battery.*

6. In addition, what are the suggestions you think will contribute to project development?
    - *The system to be created should not have a complicated structure. It should be simple, clear and effective. And solenoid valve should be used. If you want, multiple locations can be irrigated at the same time with the use of the valve. If there is no valve, the valve must be used as the water will flow directly. Finally, fertilization should be carried out.*

Interviewees

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