

Smart Agri

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Team #27 CMPE281

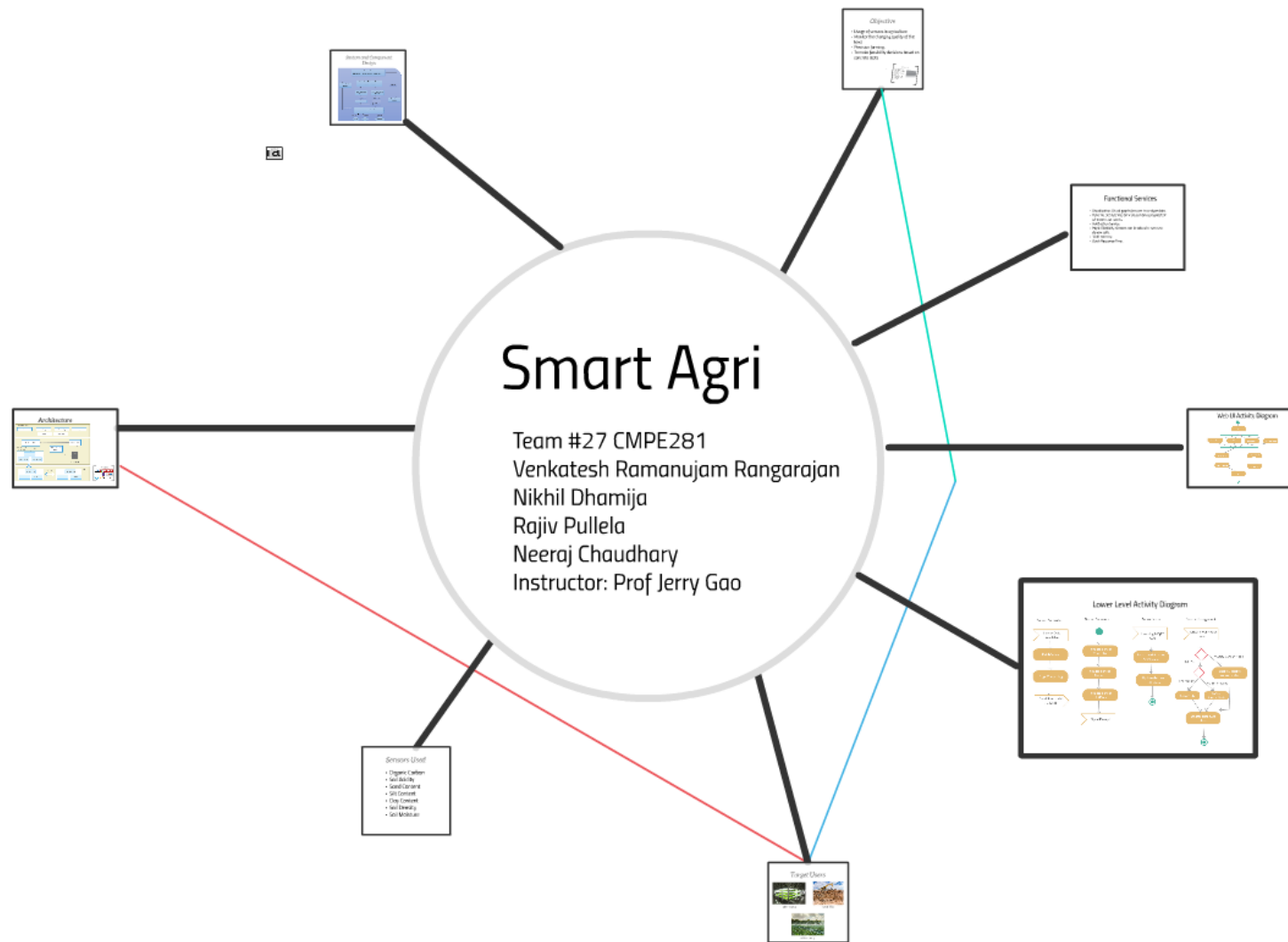
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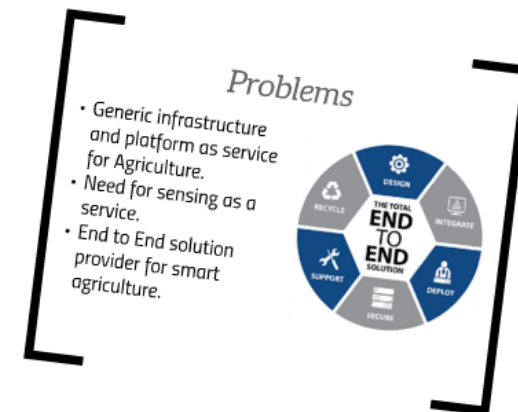
Instructor: Prof Jerry Gao



Smart Agri

Objective

- Usage of sensors in agriculture.
- Monitor the changing quality of the land.
- Precision farming.
- To make feasibility decisions based on concrete stats



Problems

- Generic infrastructure and platform as service for Agriculture.
- Need for sensing as a service.
- End to End solution provider for smart agriculture.



Target Users



Indoor Farming

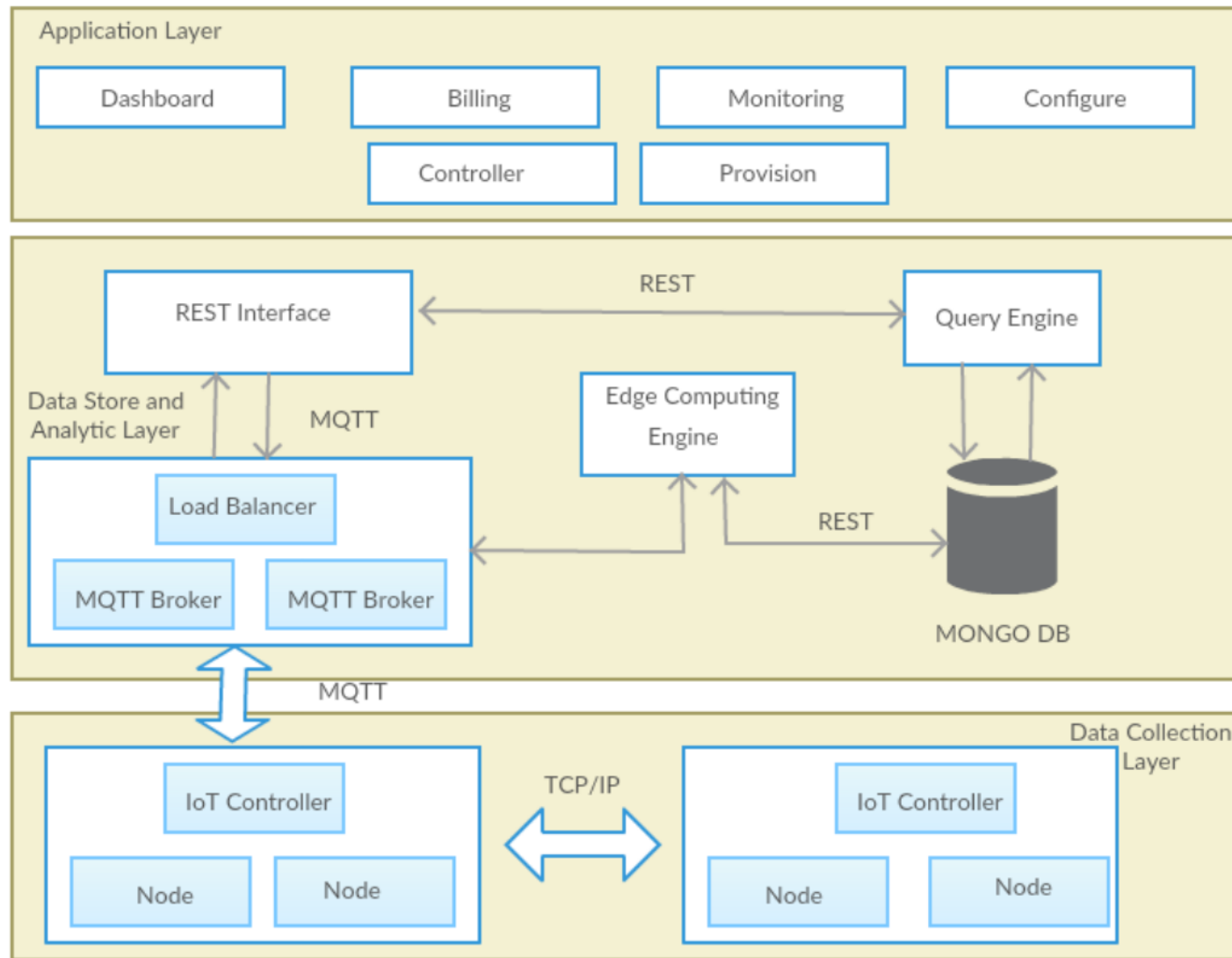


Construction



Outdoor Farming

Architecture



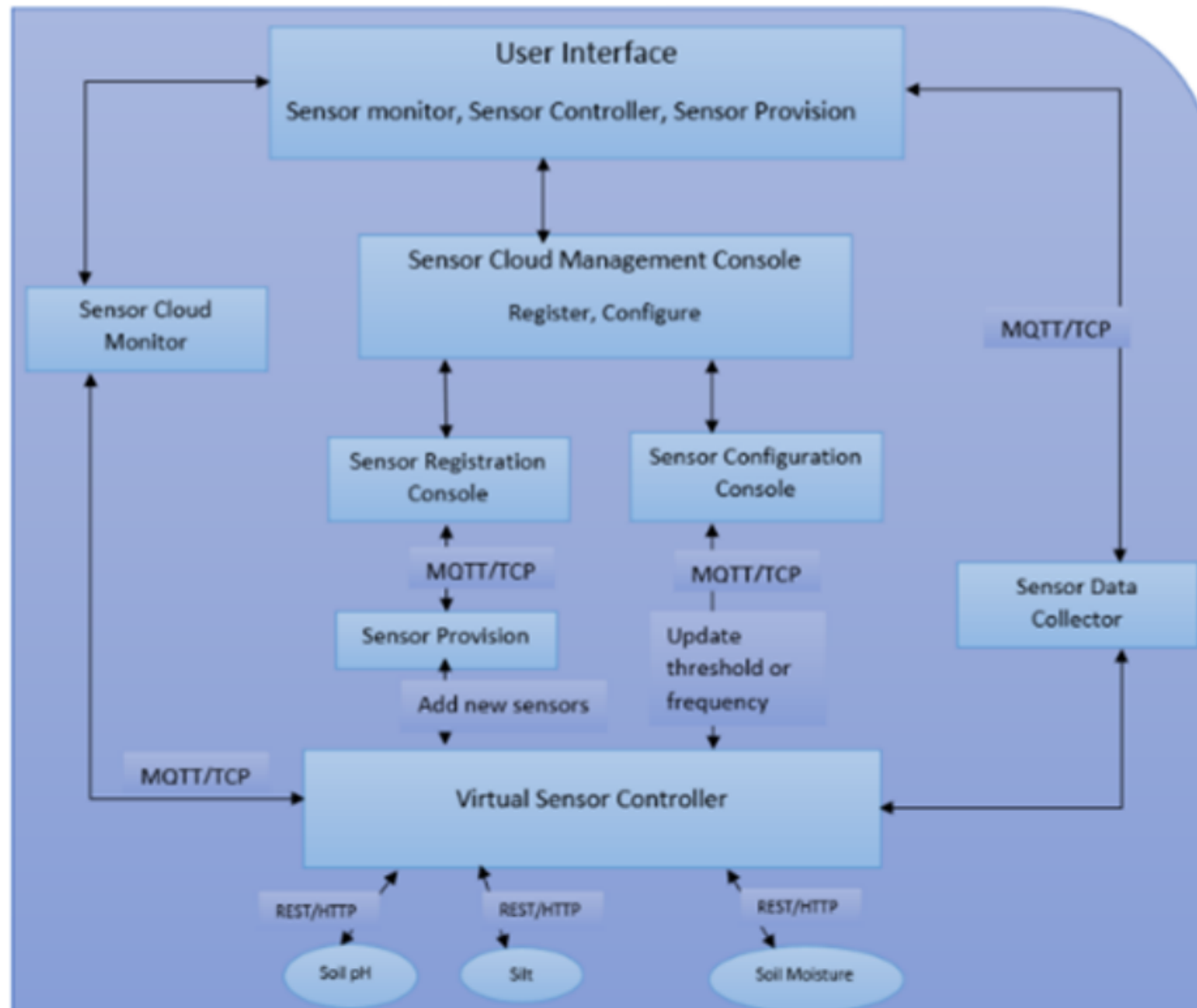
Technology



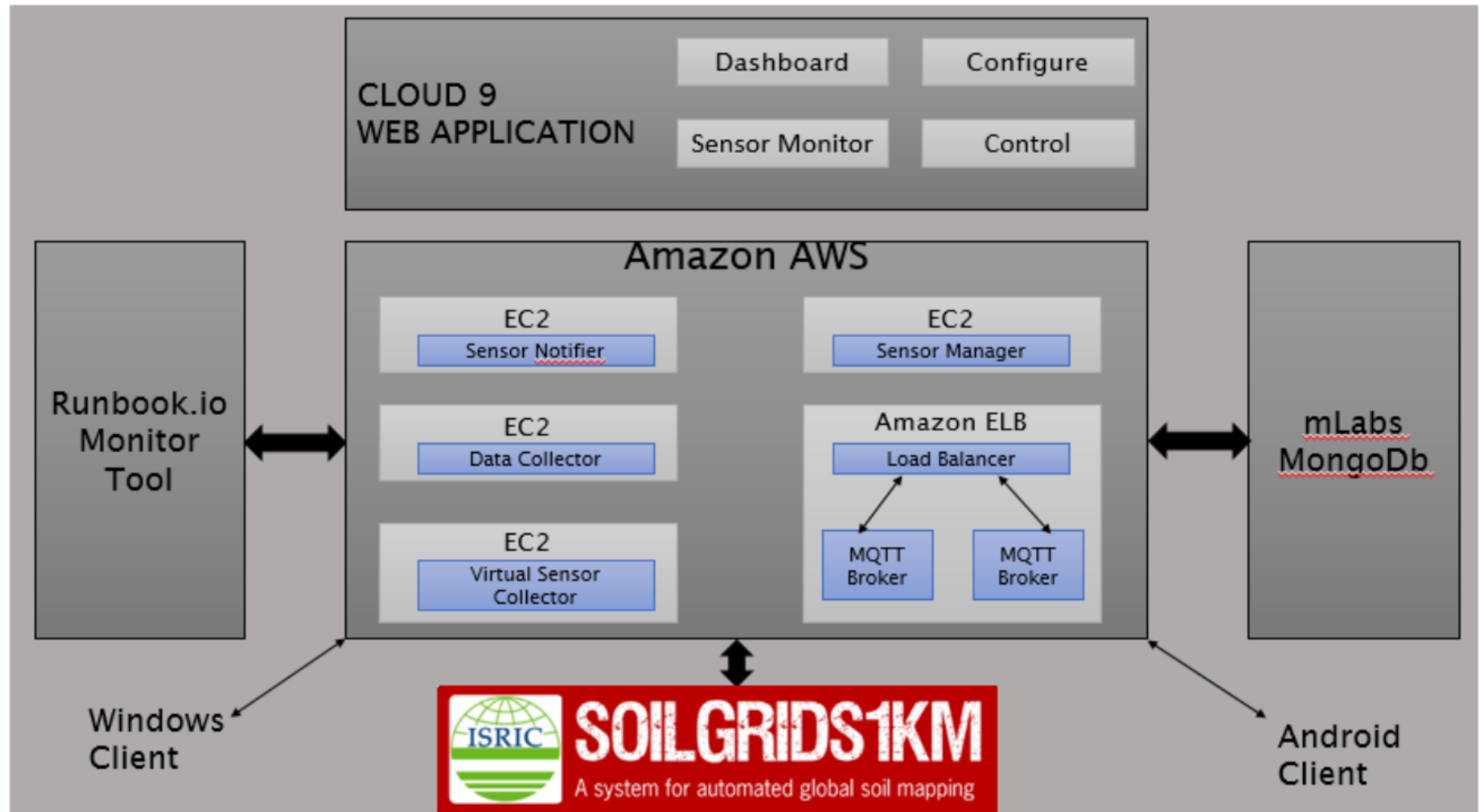
Sensors Used

- Organic Carbon
- Soil Acidity
- Sand Content
- Silt Content
- Clay Content
- Soil Density
- Soil Moisture

System and Component Design



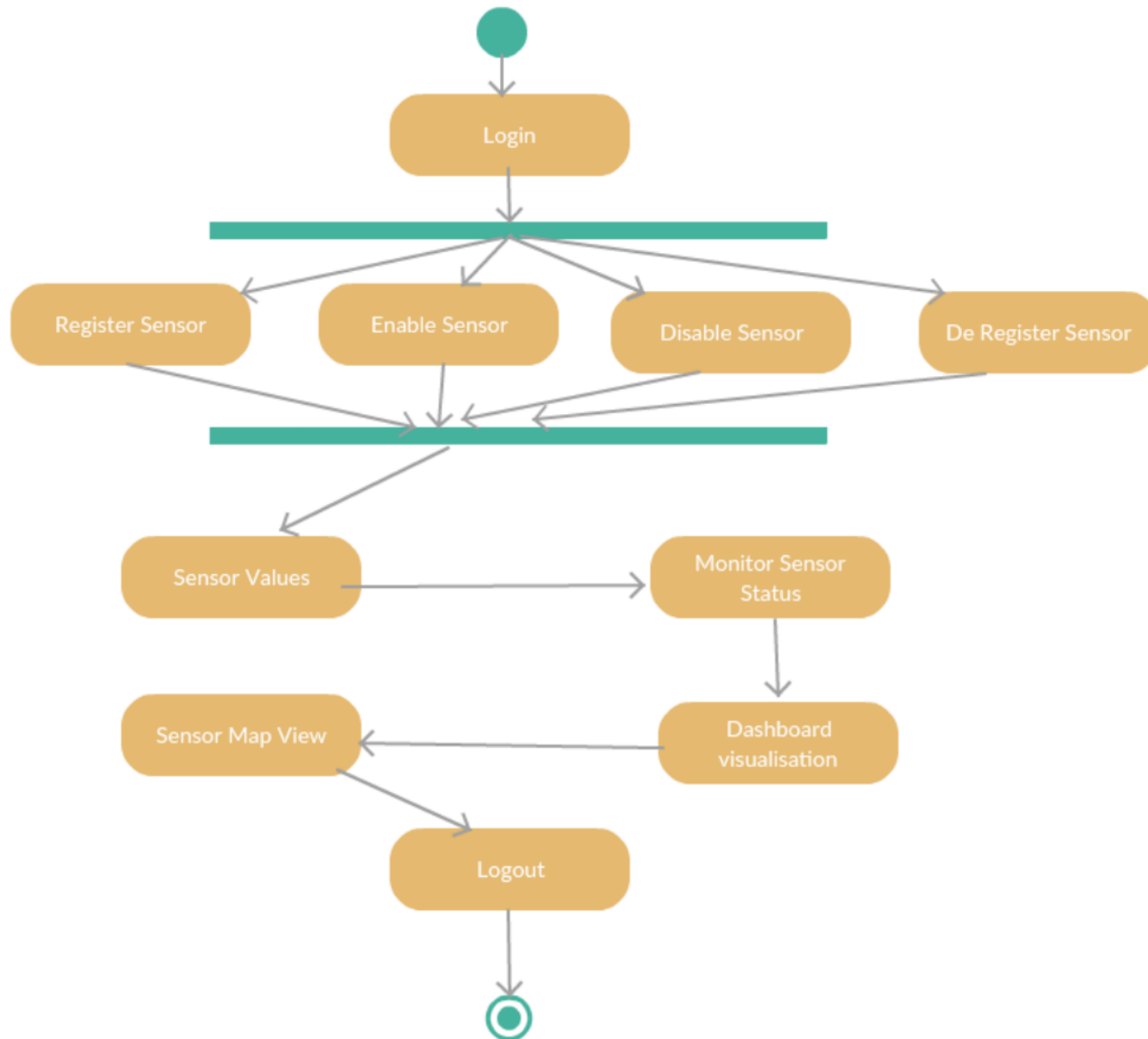
Deployment Diagram



Functional Services

- Visualization: Visual graphs for user to analyze data.
- Dynamic provisioning: Services can be accessed from wherever user wants.
- Notification Service.
- Rapid Elasticity: Sensors can be added or removed dynamically.
- Multi-tenancy.
- Quick Response Time.

Web UI Activity Diagram



Lower Level Activity Diagram

