



INTELLIGRAIN

Maximizing crop yields with real-time grain analysis for commercial farmers

Problem

Farmers are left in the dark when it comes to the factors influencing their crop grades, resulting in inaccurate assessments and financial uncertainties. Each grain bin receives a single grade without disclosing the grading factors, leaving farmers unaware of the true quality of their crops. Grading directly corresponds to how much farmers are paid for their crops. With commercial farms spanning thousands of acres and numerous 30 tonne bins, farmers struggle to obtain accurate quality assessments that would allow them to improve their crop yields and negotiate fair contracts.

Objective

Intelligrain, powered by Ground Truth Agriculture's advanced Computer Vision technology, disrupts this paradigm by offering real-time insights into grain quality. By leveraging periodic sampling during harvest, Intelligrain provides a detailed breakdown of a field's grain quality and underlying issues, enhancing a farmer's ability to make informed decisions and improve crop yields year after year. Farmers can now visualize the makeup of their fields, filter predictions by grade and specific characteristics, and identify factors affecting crop quality.

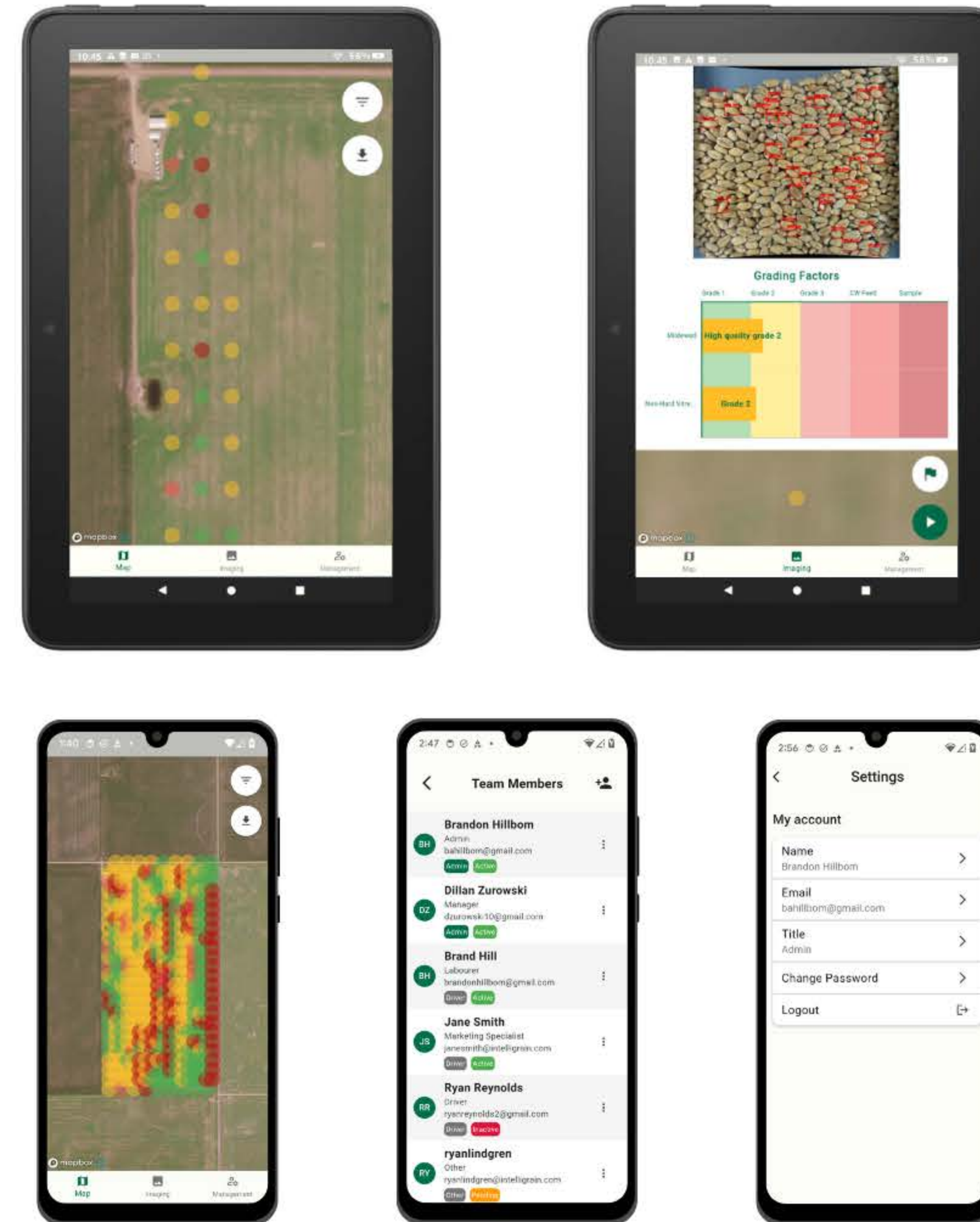
Team Members



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Tech Stack



Flutter



FastAPI



Firebase

Features

- Real-time field visualization using MapBox
- Advanced map filtering
- Grade factor analytics
- Live imaging of grain samples
- Team management
- Export map data to overlay with other mapping tools

Conclusion

Farmers now have a powerful solution that helps them pinpoint specific factors affecting their crop yield. With this tool, they can quickly adjust grain storage methods to separate high and low-quality produce. This information also allows them to negotiate contract prices more effectively and adapt their farming practices for better results, ensuring continual improvement over time. Furthermore, Intelligrain enables farmers to make data-driven decisions, enhancing their overall efficiency and sustainability in agricultural practices.

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