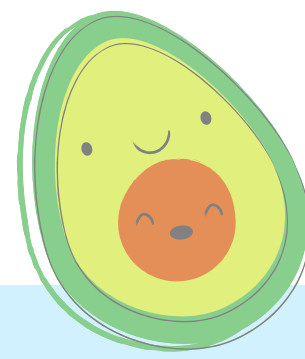


Project Avocados



Problem statement

Mishandling of fruits and long lead time often lead to **fruit damage** in fruit trading. When buyers receive damaged fruits, they file insurance claims to recoup losses. Fruit surveyors will be hired by buyers to assess the fruit quality and create survey reports which might result in **inconsistency and subjectivity**, causing disputes. This tedious process makes claims and purchasing insurance **difficult** due to the **unwillingness to finance risky fresh produce trades** due to such **unaccountability**.

Our Solution



1) Quantity and Quality Score Generation

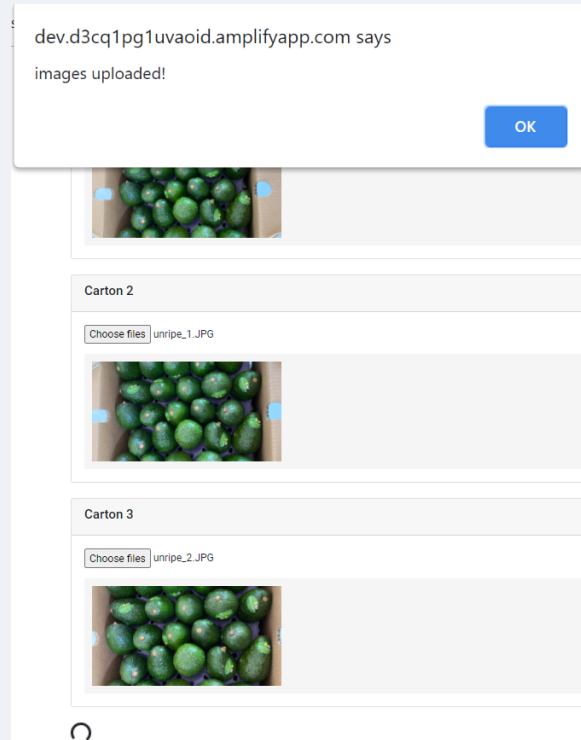
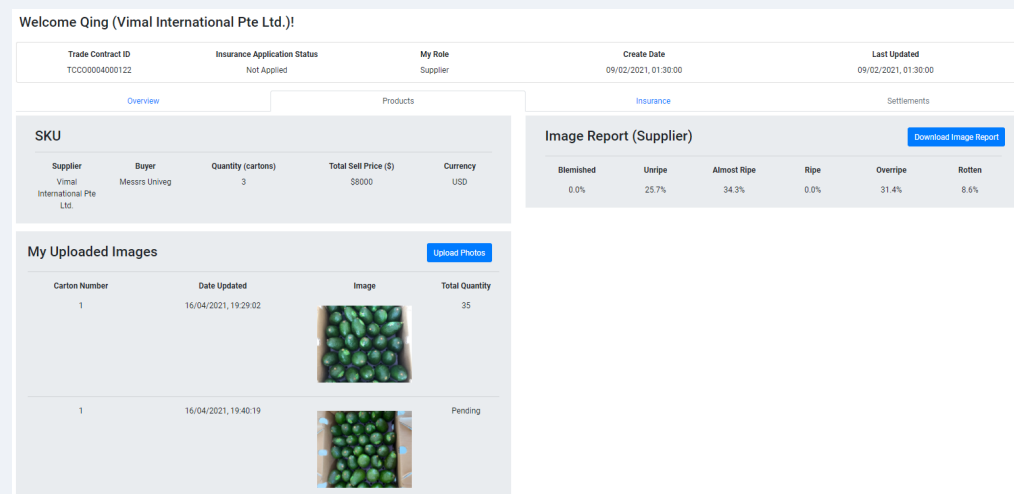


Model 1 Avocado Detection

Model 2 Ripeness Detection

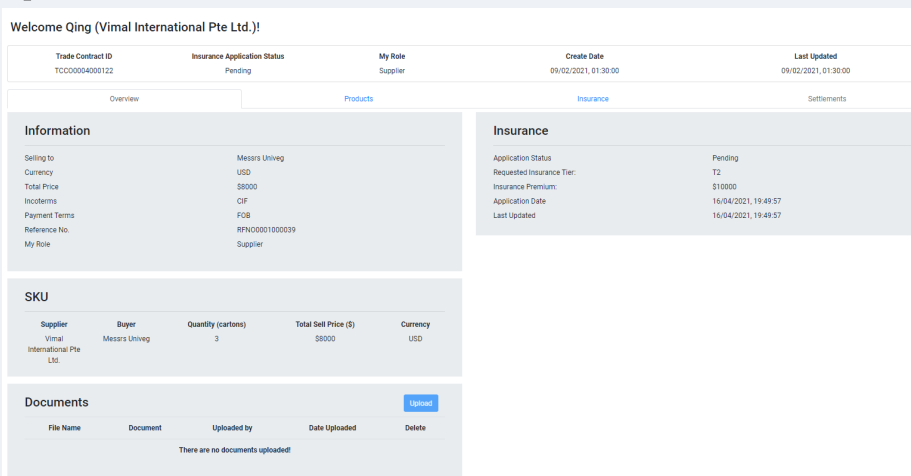


Model 2 Classes



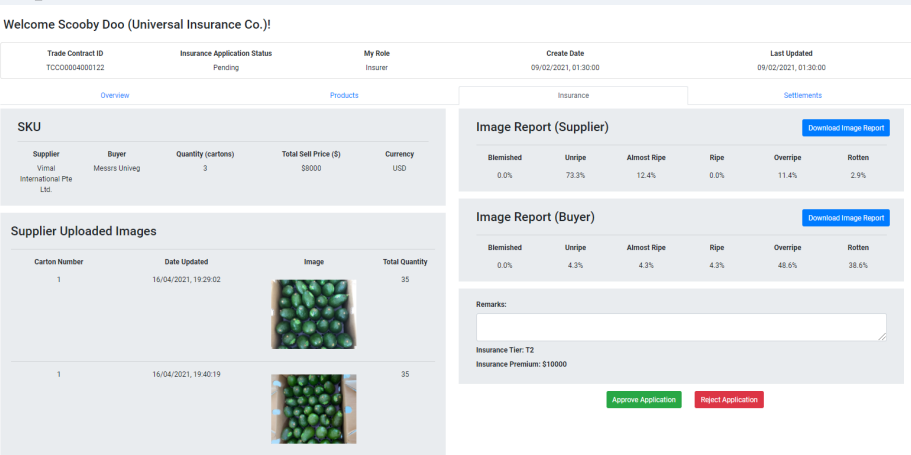
Using Tensorflow object detection models, our application is able to **accurately detect the count and ripeness** of avocados up to **80%**, automating the quality check process.

2) Insurance Purchase Facilitation



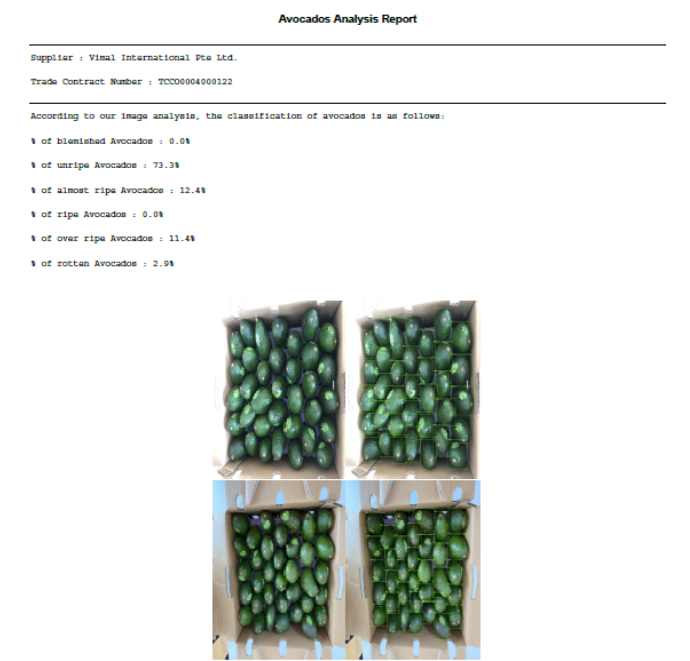
Users are able to purchase insurance and get settlements easily with the **benefit of trade data clarity, providing accountability.**

3) Insurance Settlement



Users can generate PDF reports instantly, providing ease in documentation for official records.

4) Statistic Report Generation



Business Value!

- ✓ No more **subjectivity** in fruit grading in the industry.
- ✓ Unbiased quantitative fruit quality gradings aid in **better trade risk assessment**.
- ✓ Statistic reports generated with **zero waiting time**.
- ✓ Trade data clarity describes user credibility, allowing **data-driven decisions** to be made.
- ✓ **Transparency** in trades accurately documented, backed by fruit quality images.
- ✓ Transparency and accountability **fosters growth** in the fruit trade industry.

Tech Stack



The Team



Ashley Lau Bing Heng
Front-end Developer



Gordon Lim Yu Chen
Back-end Developer



Chiang Qing Rong
Project Manager



Soh Wei Ming
Machine Learning Developer



Chong Kai Yun
Machine Learning Developer



Tan Li Xuan Denyse
Machine Learning Developer

Learning Outcomes



The team must be willing to **continuously innovate** as initial ideas and unpredictable situations are bound to happen.



Proper discussion and communication is necessary to generate new ideas and ensure fair work allocation.



The team had a steep learning curve to implement new technology but through the process we all **learnt new skills and knowledge**.