



Alpha Presentation

Clean and Sterilized Instrumentation

The Capstone Experience

Team Stryker IST

Suhas Rao Cheeti

Benjamin Eyke

Noah Vermeulen

Jerry Chen

Ismail Abdi

Lee Sullivan

Department of Computer Science and Engineering
Michigan State University



*From Students...
...to Professionals*

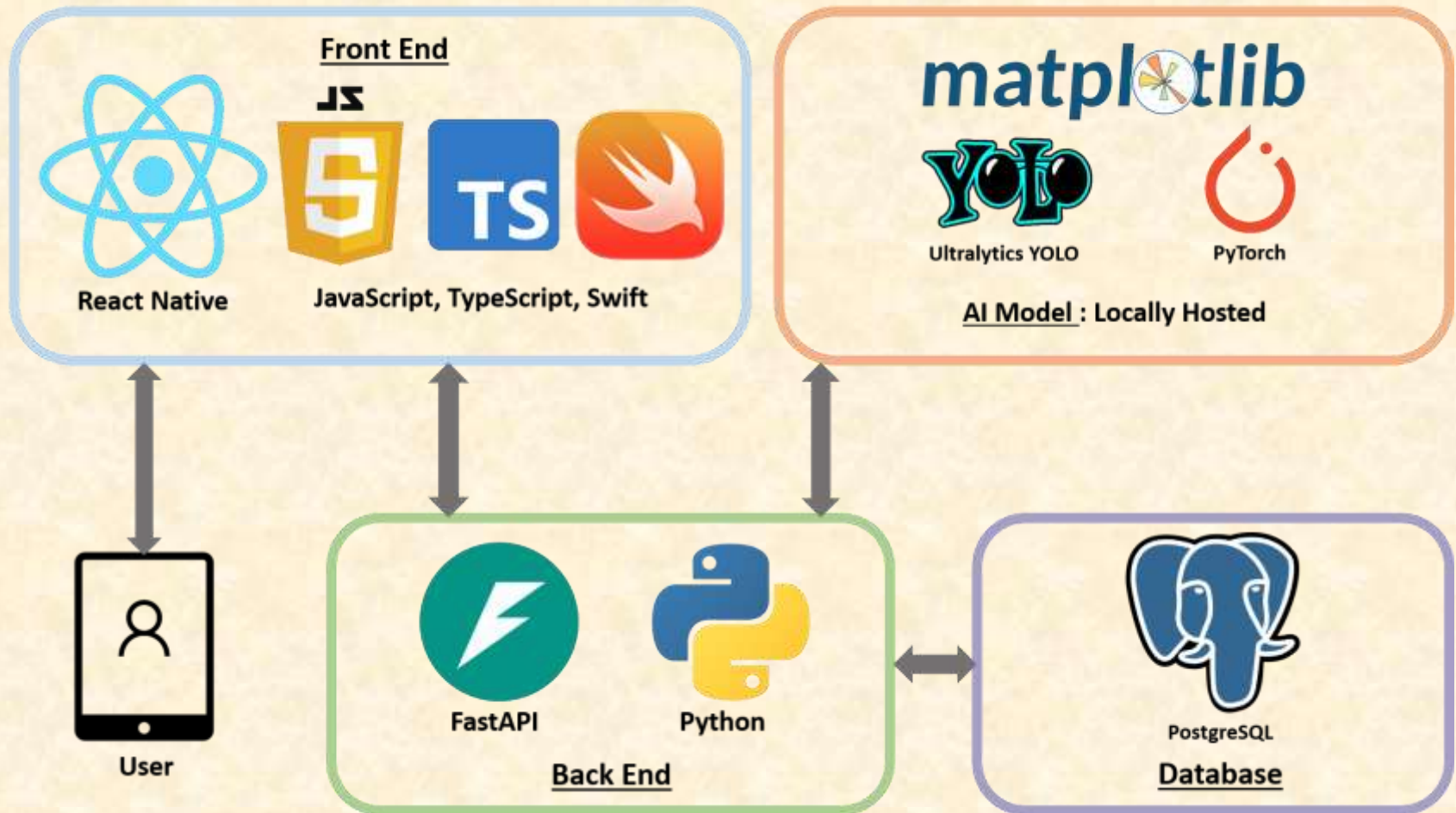
Fall 2025

Project Overview

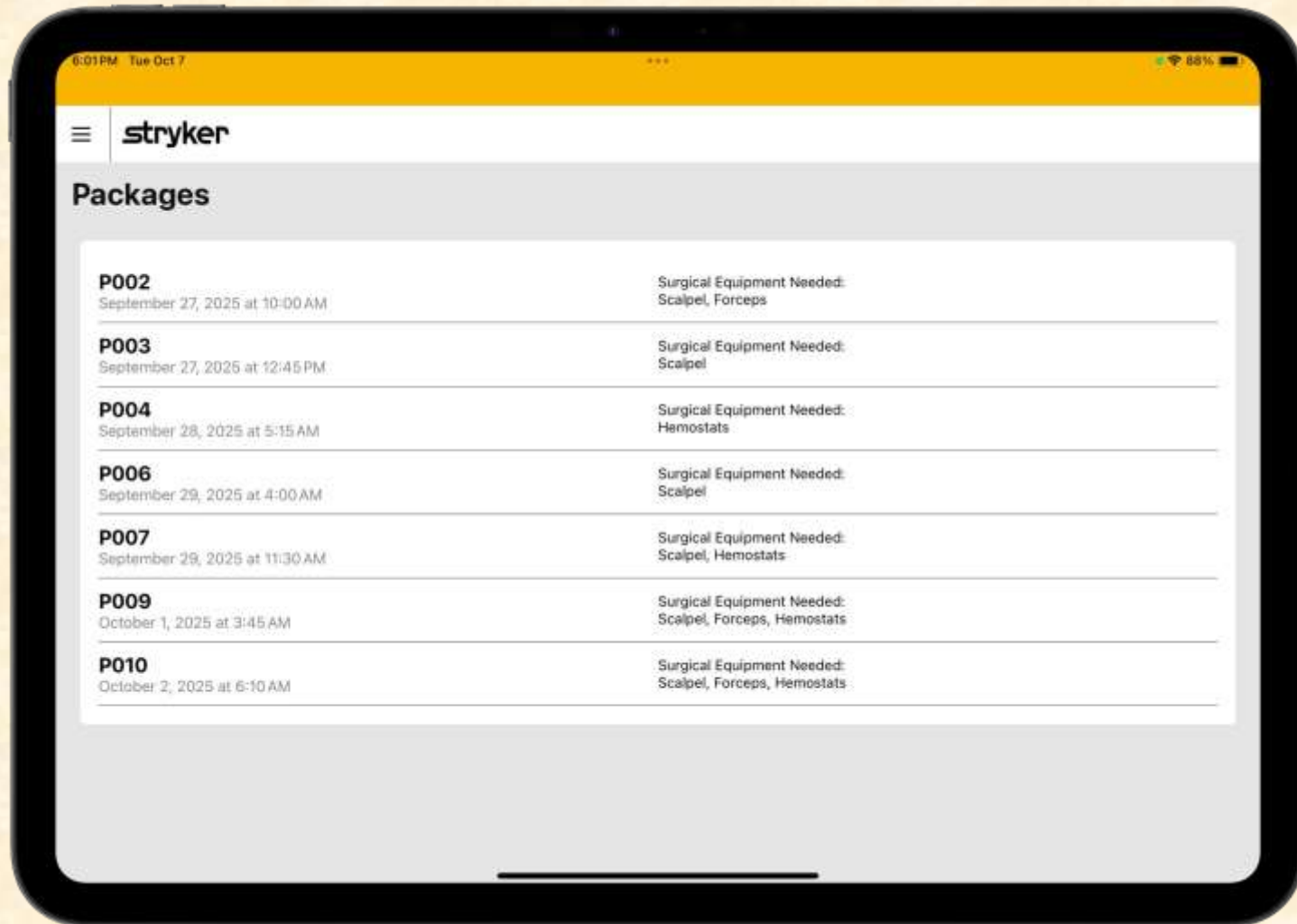
- Sterile Processing Department
- Eliminate Potential Human Error
- Automate Identification
- Uses Camera on Tablet
- Displays Quantitative Data



System Architecture



Packages Page

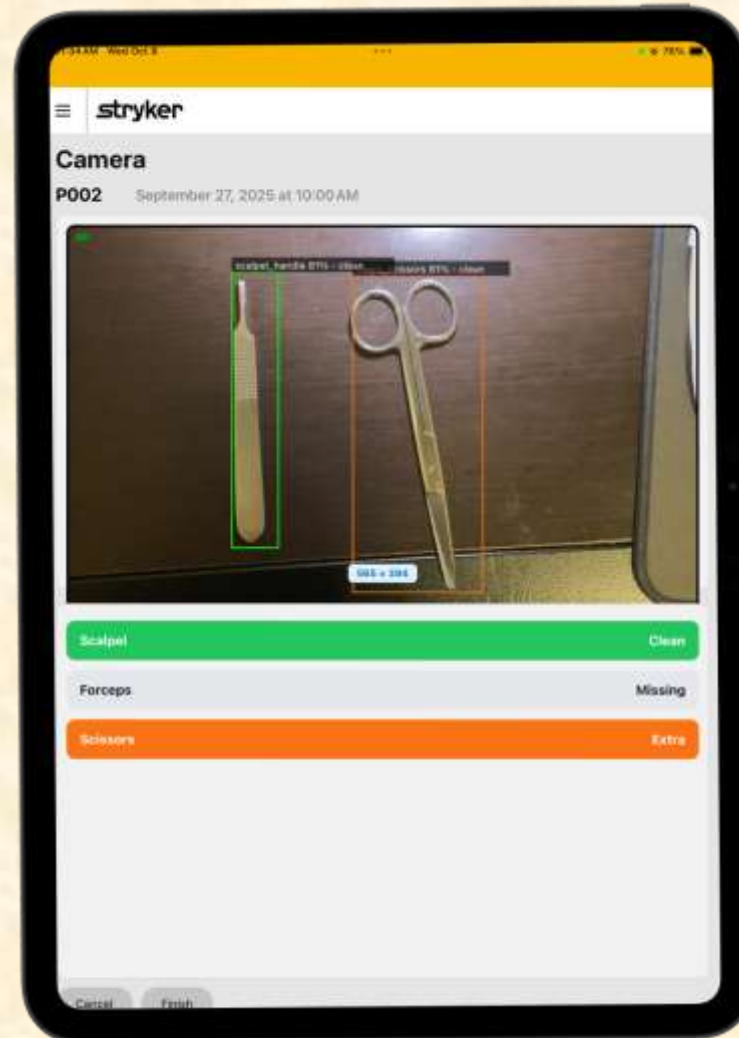


The screenshot displays the Stryker mobile application interface on a tablet. At the top, there is a yellow status bar with the time '6:01 PM', date 'Tue Oct 7', and battery level '68%'. Below this is a white header with a hamburger menu icon and the 'stryker' logo. The main section is titled 'Packages' in a grey bar. The content area lists seven surgical packages, each with a package ID, a date and time, and the required surgical equipment.

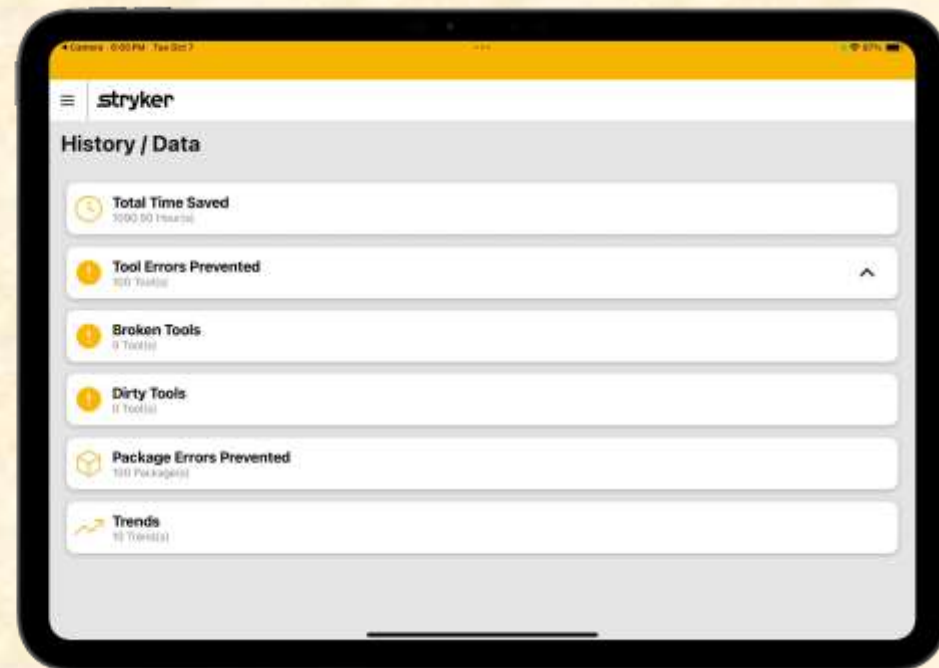
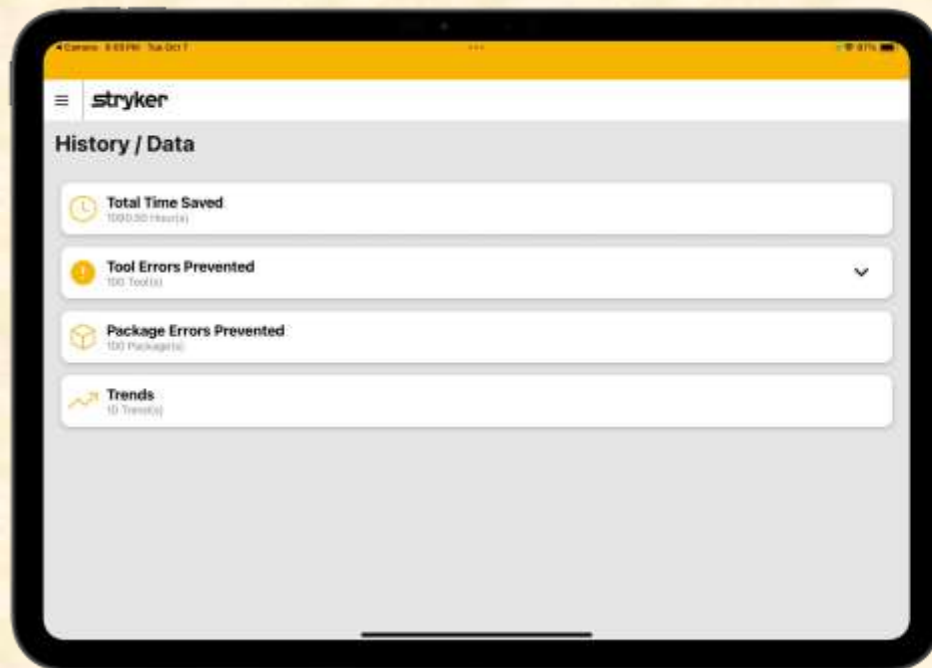
Package ID	Date and Time	Surgical Equipment Needed
P002	September 27, 2025 at 10:00 AM	Scalpel, Forceps
P003	September 27, 2025 at 12:45 PM	Scalpel
P004	September 28, 2025 at 5:15 AM	Hemostats
P006	September 29, 2025 at 4:00 AM	Scalpel
P007	September 29, 2025 at 11:30 AM	Scalpel, Hemostats
P009	October 1, 2025 at 3:45 AM	Scalpel, Forceps, Hemostats
P010	October 2, 2025 at 6:10 AM	Scalpel, Forceps, Hemostats



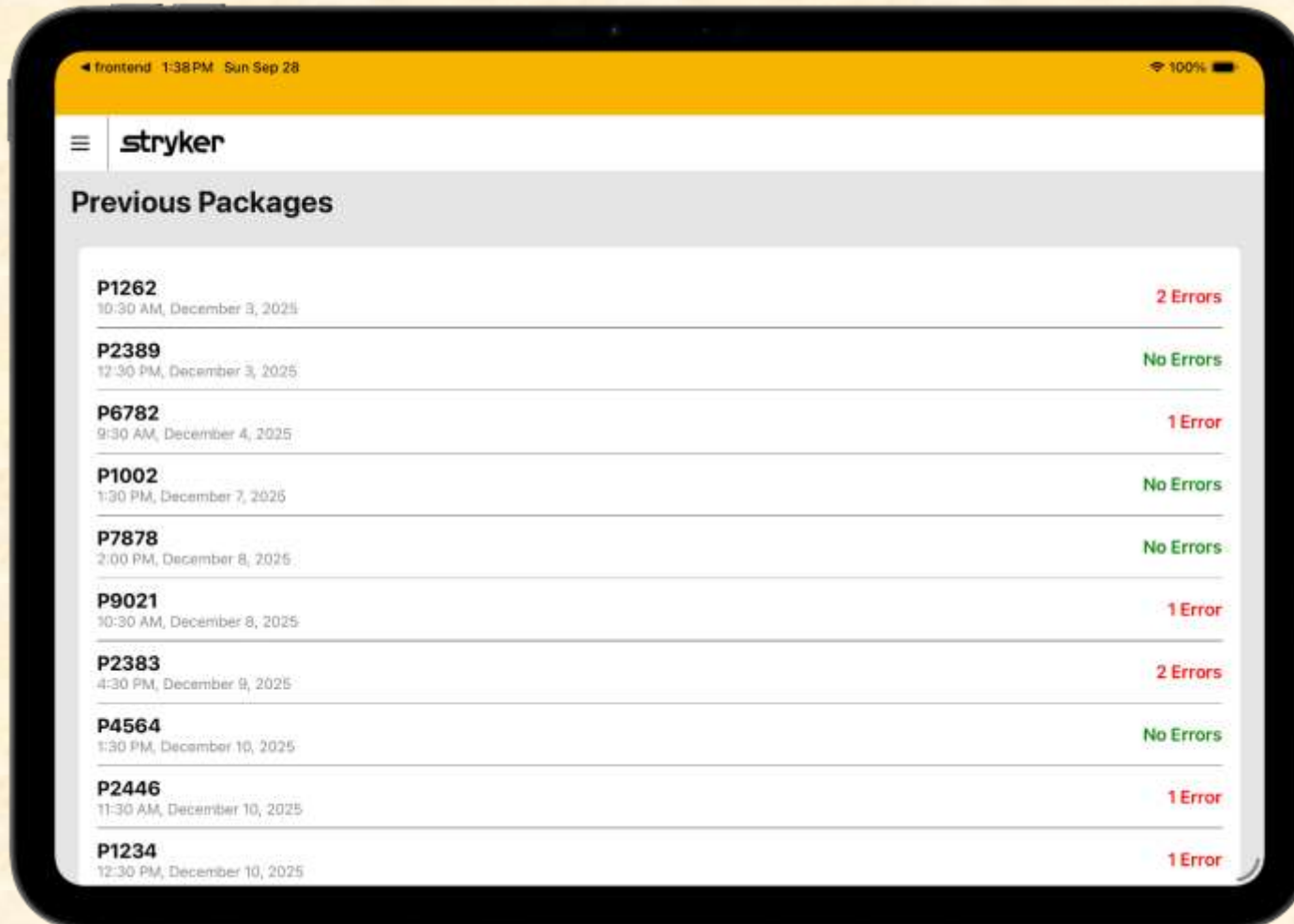
Camera Page



History/Data Page



Previous Packages Page



frontend 1:38 PM Sun Sep 28 100%

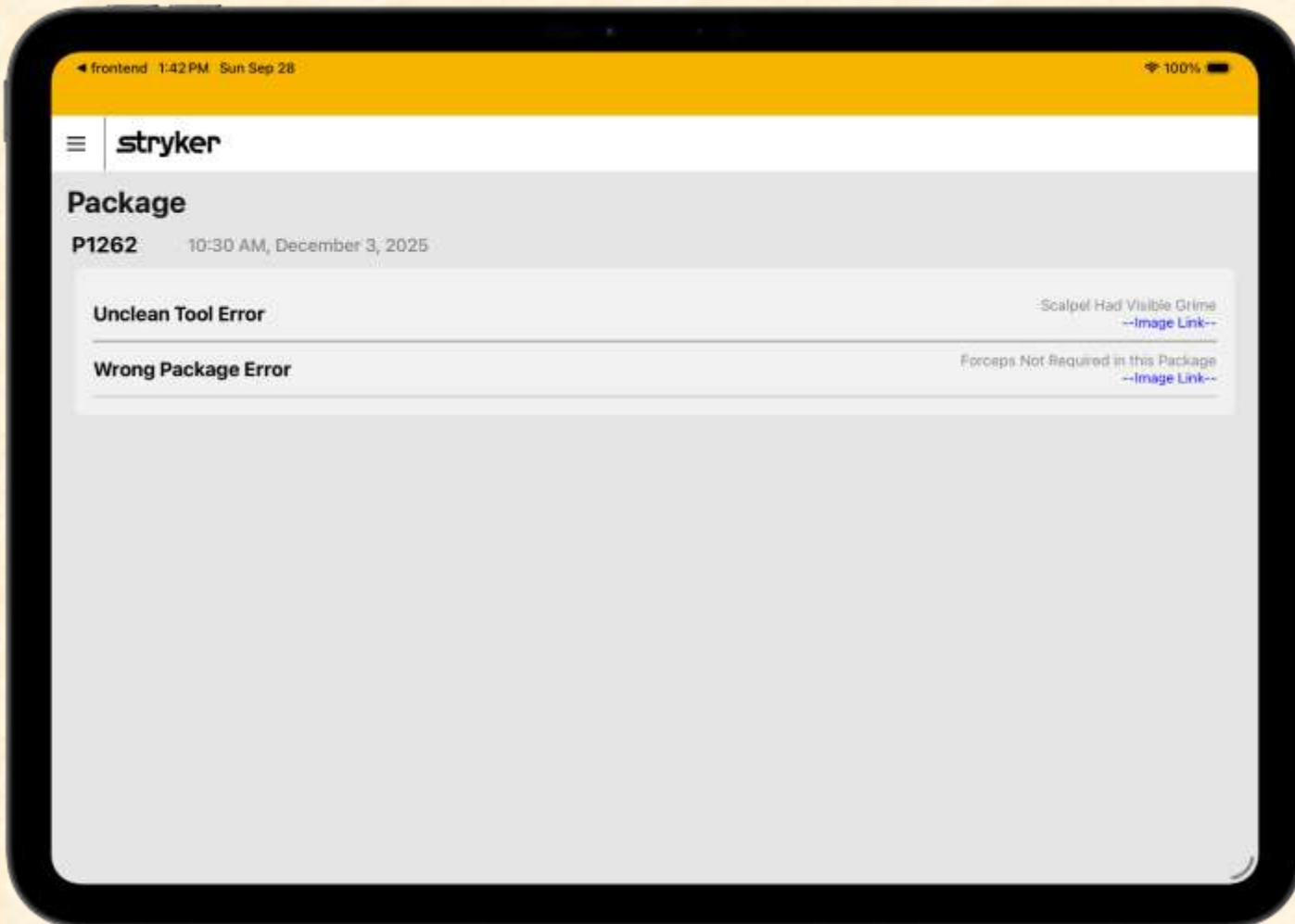
≡ stryker

Previous Packages

P1262 10:30 AM, December 3, 2025	2 Errors
P2389 12:30 PM, December 3, 2025	No Errors
P6782 9:30 AM, December 4, 2025	1 Error
P1002 1:30 PM, December 7, 2025	No Errors
P7878 2:00 PM, December 8, 2025	No Errors
P9021 10:30 AM, December 8, 2025	1 Error
P2383 4:30 PM, December 9, 2025	2 Errors
P4564 1:30 PM, December 10, 2025	No Errors
P2446 11:30 AM, December 10, 2025	1 Error
P1234 12:30 PM, December 10, 2025	1 Error



Package Data Page



What's left to do?

- Finetune AI/ML Models
- Add Package Tracking Pipeline
- Update History/Data Page
- Finish Connecting Endpoints
- Add Way to Input Packages
- User Authentication



Questions?

?

?

?

?

?

?

?

?

?

