

**MICHIGAN STATE**  

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**U N I V E R S I T Y**

# Alpha Presentation

## QA Audit Center

### The Capstone Experience

### Team United Airlines Quality Assurance

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Department of Computer Science and Engineering

Michigan State University

Fall 2021



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

# Project Overview

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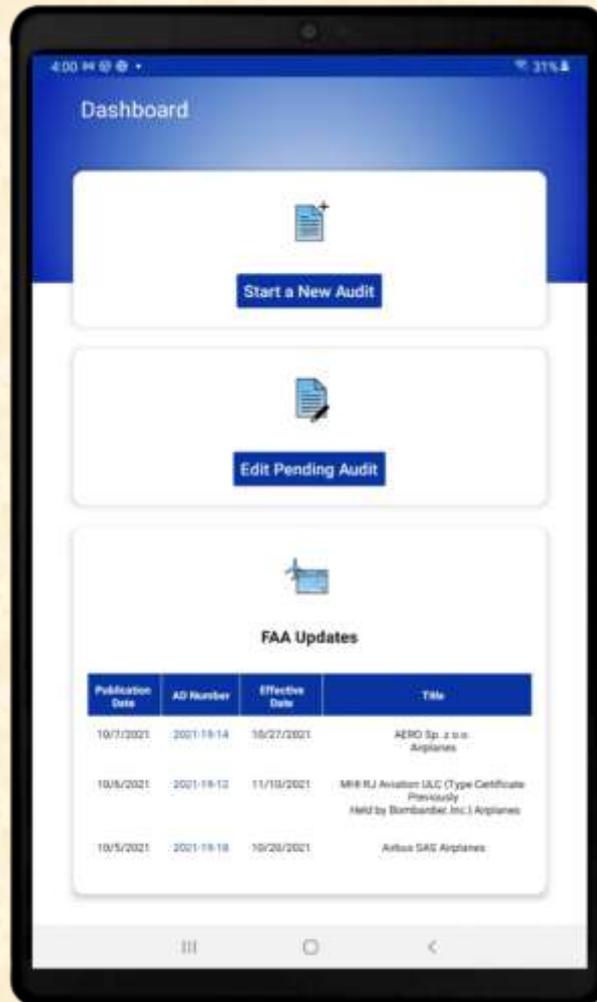
- Auditors will be able to maintain optimal business operations by conducting audit reports and completing checklists on the application
- Application will make reports easily accessible
- Allow off-wing quality assurance auditors to be up to date on the Federal Aviation Association (FAA) regulations and policies



# System Architecture



# Main Dashboard with FAA Updates



# In-Process Audit Sheet

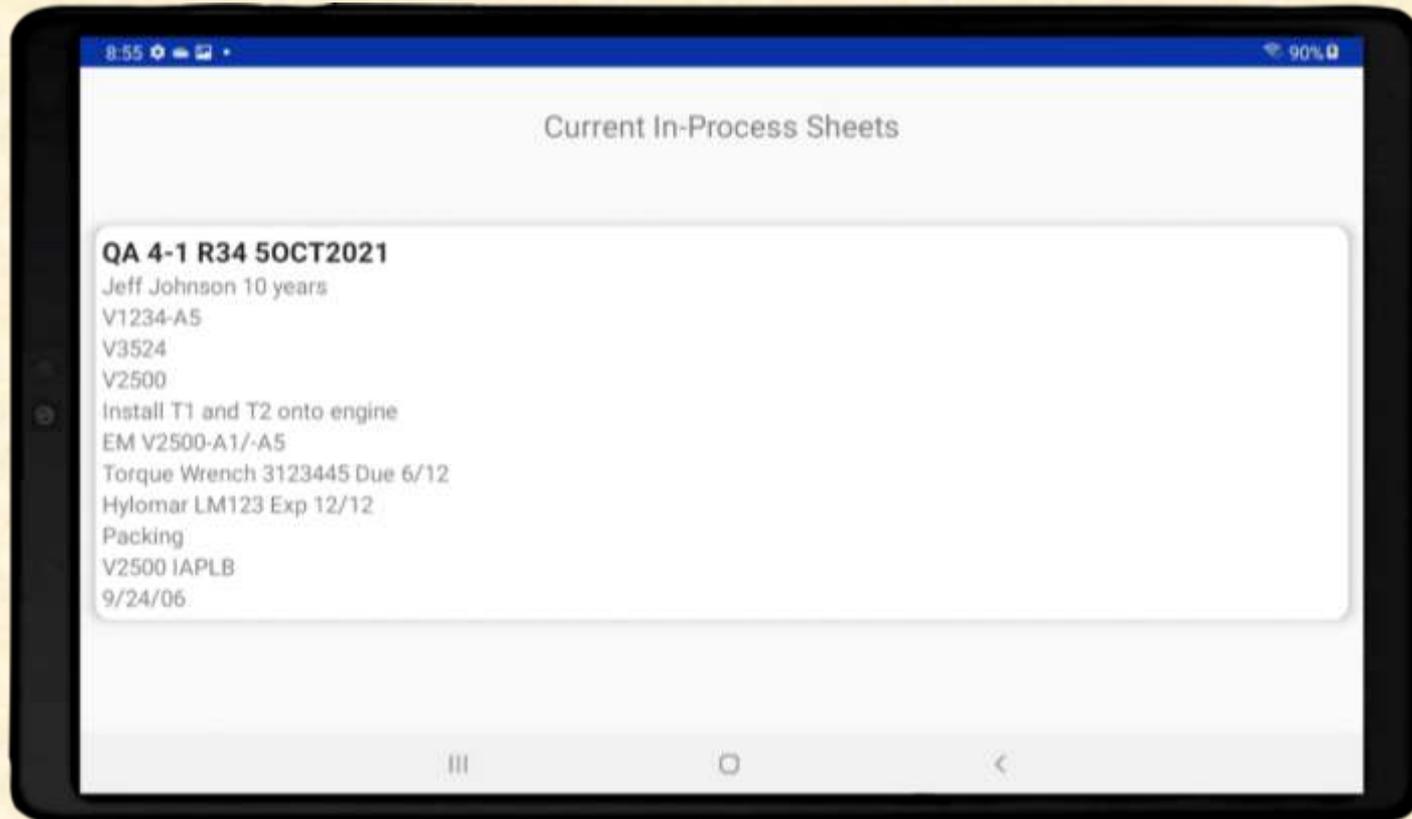
11:29 72%

Add Data Tables Upload Image Take Photo Save Save & Generate PDF

Employee Name/ID	Part Number	Serial Number	Nomenclature
John Doe 10 years	V1234-A5	V12345	V2500
Task	Install T1 and T2 onto engine		
Technical Specifications	EM V2500 -A1/-A5		
Tooling	Torque Wrench 3123445 Due 6/12		
Shelf Life	Hylomar LM123 Exp 12/12		
Traceability	Packing		
Required Training			Date Qualified
V2500 IAPLB			9/24/06



# Listed In-Process Sheets



# Tabular Data for an Audit

The image shows a tablet screen with two data tables. The top table is titled 'RECORDS of MAINTENANCE (ROM)' and has columns for Doc Type, Document #, Part/PN/SN, Date, Specification incl. revision level & date, and Tech. Name. It contains two rows of data and an 'ADD ROW' button. The bottom table is titled 'TRACEABILITY' and has columns for Product, Part Number, Batch/Lot #, P.O. Number, and Supplier. It contains two rows of data and an 'ADD ROW' button.

RECORDS of MAINTENANCE (ROM)					
Doc Type	Document #	Part/PN/SN	Date	Specification incl. revision level & date	Tech. Name
CAA Form 1	LHT2351 June 2021	V2500 V23566-A4	7/6/21	EM V2500 5/1/21	Jeff Johnson 82123
CAA Form 1	LHT2762 Aug 2021	V2500 V23566-A4	6/15/21	EM V2501-A1 6/3/21	Jeff Johnson 82644
ADD ROW					

TRACEABILITY				
Product	Part Number	Batch/Lot #	P.O. Number	Supplier
Washer	A374925	332536497	N/A	Pattonair
Packing	A177263	461993746	N/A	IAE
ADD ROW				



# What's left to do?

- Add checklists to the audit log document
- Attach photos to the audit log document
- Add data tables to the audit log document
- Ability for the application to redirect to the MSU webserver to update the regulation data



# Questions?

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