MICHIGAN STATE UNIVERSITY

Beta Presentation

QA Audit Center

The Capstone Experience

Team United Airlines Quality Assurance

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From Students…
…to Professionals

Project Overview

- 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
- United Airlines Compliance Team will be able ensure audits conform to the Federal Aviation Association (FAA) regulations and policies

System Architecture

Front End

Mobile application can fill in audit logs, generate a PDF locally and connect to the Google Firebase Cloud

Web

FAA Regulations Page

Audit Data

Airworthiness Directives

guzzle

Back End

The back-end infrastructure for our application consists of both the Google Firebase platform and the MSU server.

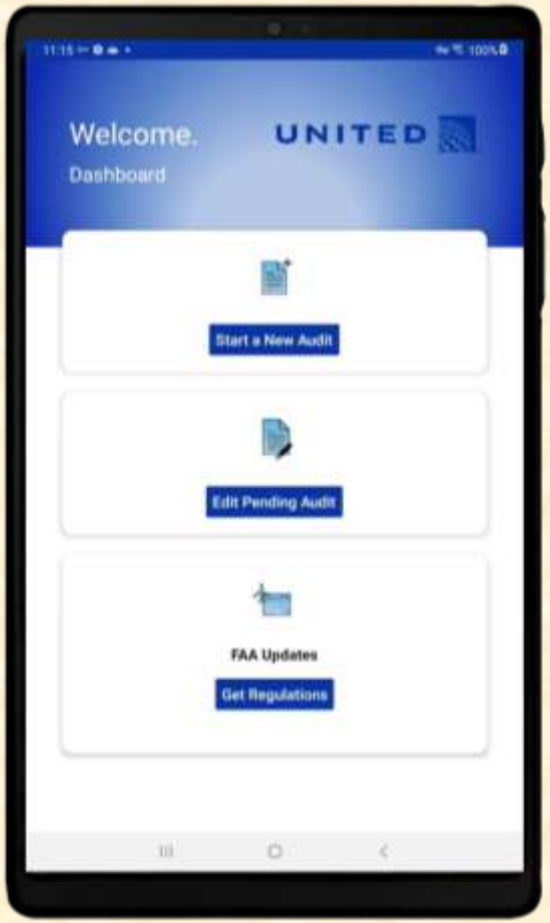
Firebase

Google Firebase

SQLite

PhpStorm

Dashboard


Welcome.
UNITED
Dashboard
Start a New Audit
Edit Pending Audit
FAA Updates
Get Regulations

Audit In-Process Sheet

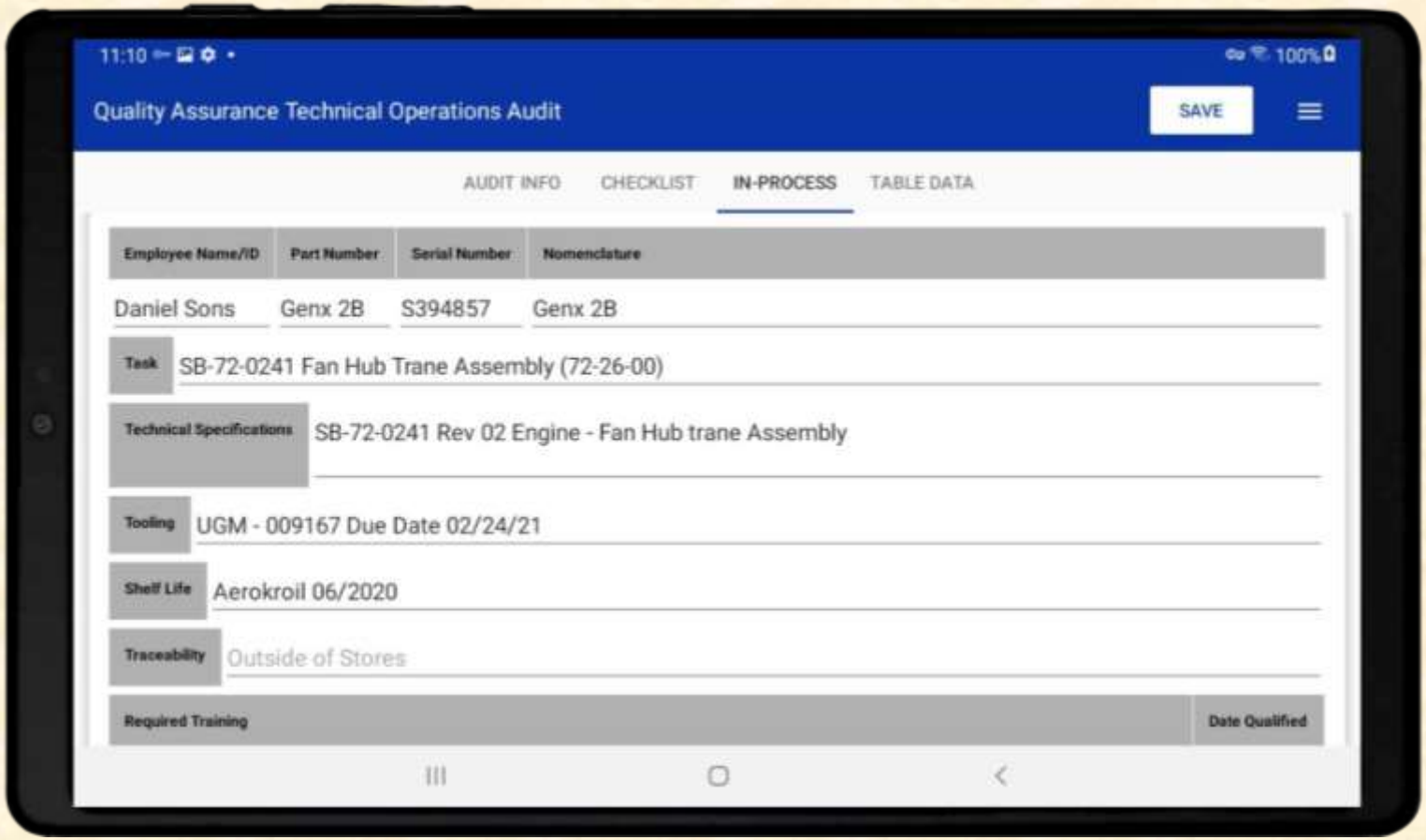
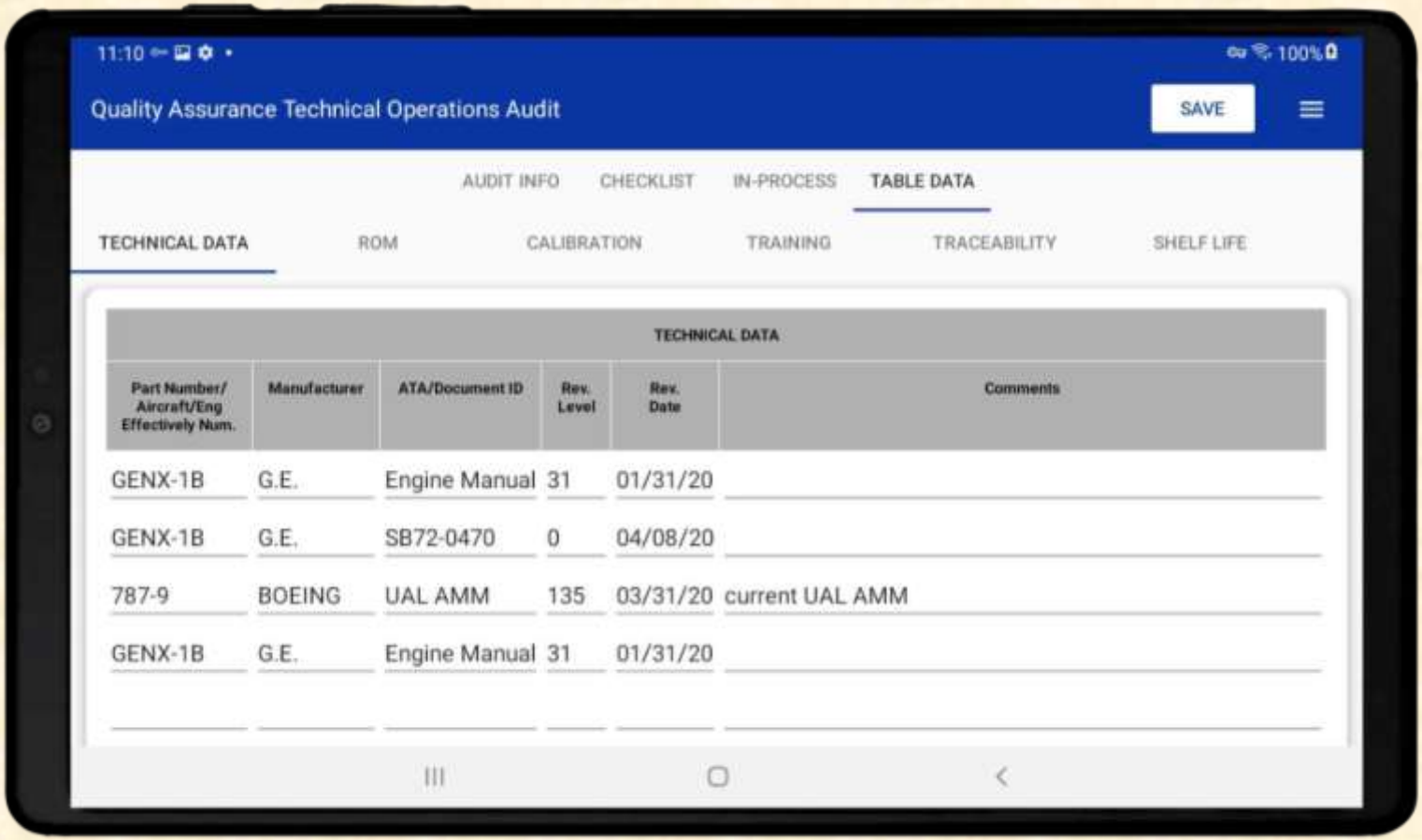
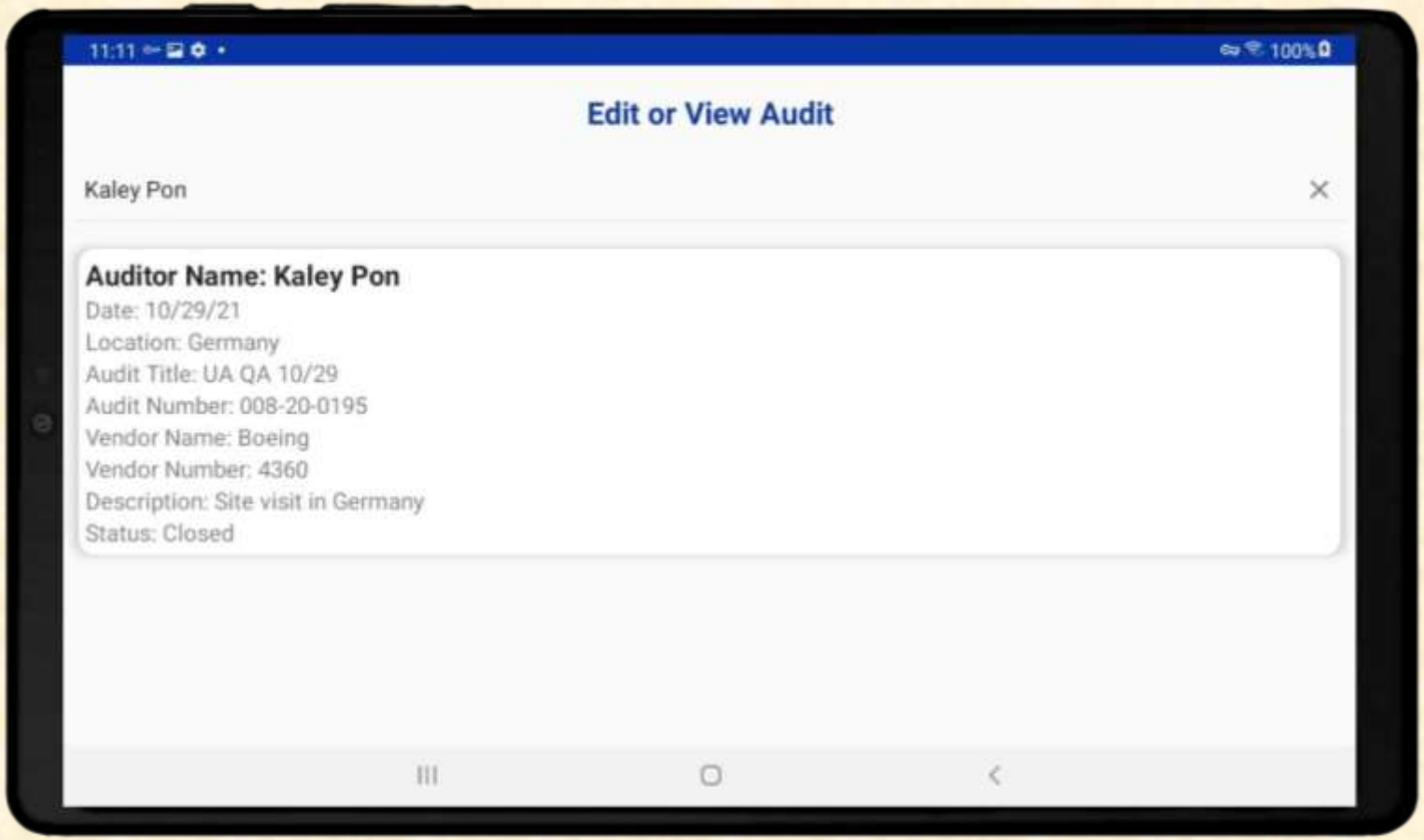


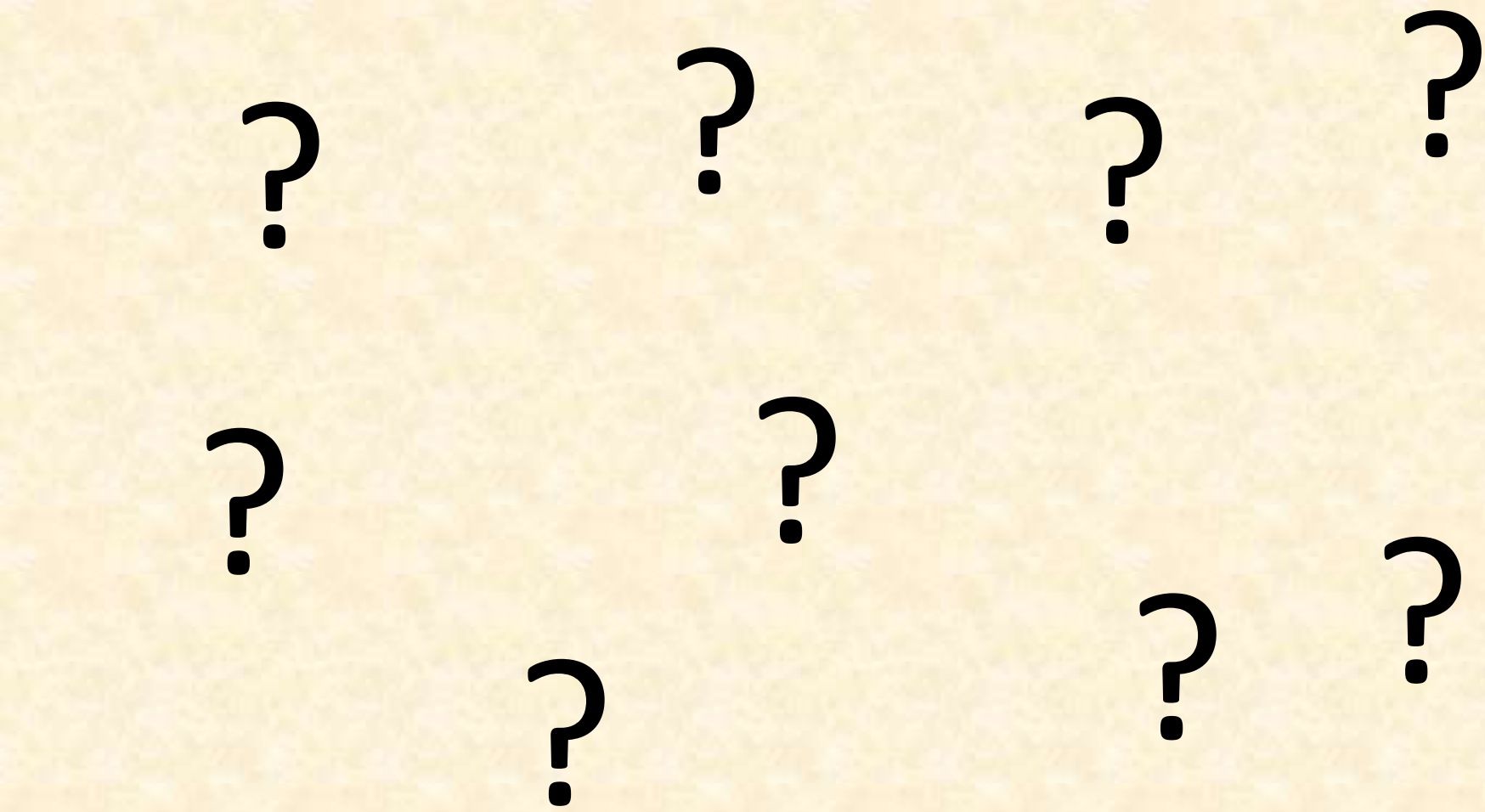
Table Data


11:10
100%
Quality Assurance Technical Operations Audit
SAVE
AUDIT INFO
CHECKLIST
IN-PROCESS
TABLE DATA
TECHNICAL DATA
ROM
CALIBRATION
TRAINING
TRACEABILITY
SHELF LIFE
TECHNICAL DATA
Part Number/ Aircraft/Eng Effectively Num.
Manufacturer
ATA/Document ID
Rev. Level
Rev. Date
Comments
GENX-1B G.E. Engine Manual 31 01/31/20
GENX-1B G.E. SB72-0470 0 04/08/20
787-9 BOEING UAL AMM 135 03/31/20 current UAL AMM
GENX-1B G.E. Engine Manual 31 01/31/20

Search for a Pending Audit



What's left to do?

- Stretch Goals
  - Expand web scraping to include more regulation documents
  - Allow auditors to add custom checklists using Excel documents on the mobile
  - Take a photo within the application
- Other Tasks
  - Add comments to checklist entries
  - Refine UI of mobile app and regulation website
  - Refine formatting of audit log PDF document
  - Optimize speed for loading and saving to the database

Questions?