Beta Presentation
Audit Automation Tool

The Capstone Experience
United Airlines Quality Assurance

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Project Overview

• Leverage AI to make auditing process automated for United Airlines, one of America’s foremost airlines
• By creating a web application to compare FAA and United Airlines regulations to vendor servicing manuals
• Showcase missing standards not found in the vendor manuals to streamline auditing process – reducing manpower required for auditing as well as the elongated auditing process time – bringing capacity back to the team
System Architecture

- AWS S3
- AWS Beanstalk
- AWS EC2
- React
- JS
- Front-end UI
- Flask API
- DynamoDB Database
- Back end
- Question/Answer Model

Team United Airlines Quality Assurance Beta Presentation
Home Page
Upload Page

Request an audit
Upload a vendor manual and fill out the form below to get an AI-generated audit.

Create New Audit
- Engine
- Components
- Other

Upload United Airline and FAA requirements
- UPLOAD FILES
- REGULATION FILES

Upload Vendor Manuals
- UPLOAD FILES
- VENDOR MANUALS

Submit
Results Page

Audit Automation Tool

Result of your Audit:

Q.A. POLICY & PROCEDURES
QUALITY AUDIT DEPARTMENT


<table>
<thead>
<tr>
<th>QUESTION</th>
<th>YES/NO/NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Obtain and review a copy of the current FAA Air Agency, or Transport Canada AMD certificate, and Operations Specifications (if applicable). Are they accurate? [49 CFR 190.206(i) [146.5] [2A]</td>
<td>The information provided in the context does not allow for a conclusion to be made about whether the TCOA is not a good source of information.</td>
</tr>
<tr>
<td>2. If the repair station has &quot;Limited Ratings,&quot; does the vendor have a capabilities listing that satisfies the standard (Housing, Facility, Tool &amp; Test, Material, Equipment, Tech Data, Processes, &amp; Trained Personnel)? &quot;Obtain&quot;: [146.41][146.218][2C]</td>
<td>Yes.</td>
</tr>
<tr>
<td>4. Does the vendor have an FAA approved and active</td>
<td></td>
</tr>
</tbody>
</table>

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History Page

Audit Automation Tool

Audit History

<table>
<thead>
<tr>
<th>Date</th>
<th>ID</th>
<th>Auditor</th>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020-11-12</td>
<td>2</td>
<td>Emily</td>
<td>QSM</td>
<td>Engine</td>
</tr>
<tr>
<td>2020-12-30</td>
<td>1</td>
<td>Shafkat</td>
<td>RSM</td>
<td>Engine</td>
</tr>
<tr>
<td>2021-1-23</td>
<td>3</td>
<td>Haoyun</td>
<td>QSM</td>
<td>Other</td>
</tr>
</tbody>
</table>
What’s left to do?

• Features
• Stretch Goals
  ▪ Intermediary page
  ▪ Chatbot
• Other Tasks
  ▪ Improve accuracy
  ▪ Improve efficiency
Questions?