

**MICHIGAN STATE**  

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**UNIVERSITY**

# Beta Presentation

## Mobile GSAP and QC Audit Center v2.0

The Capstone Experience  
Team United Airlines Airport Operations

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Jacob Macbrien  
Austin Evans  
Tu Le



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

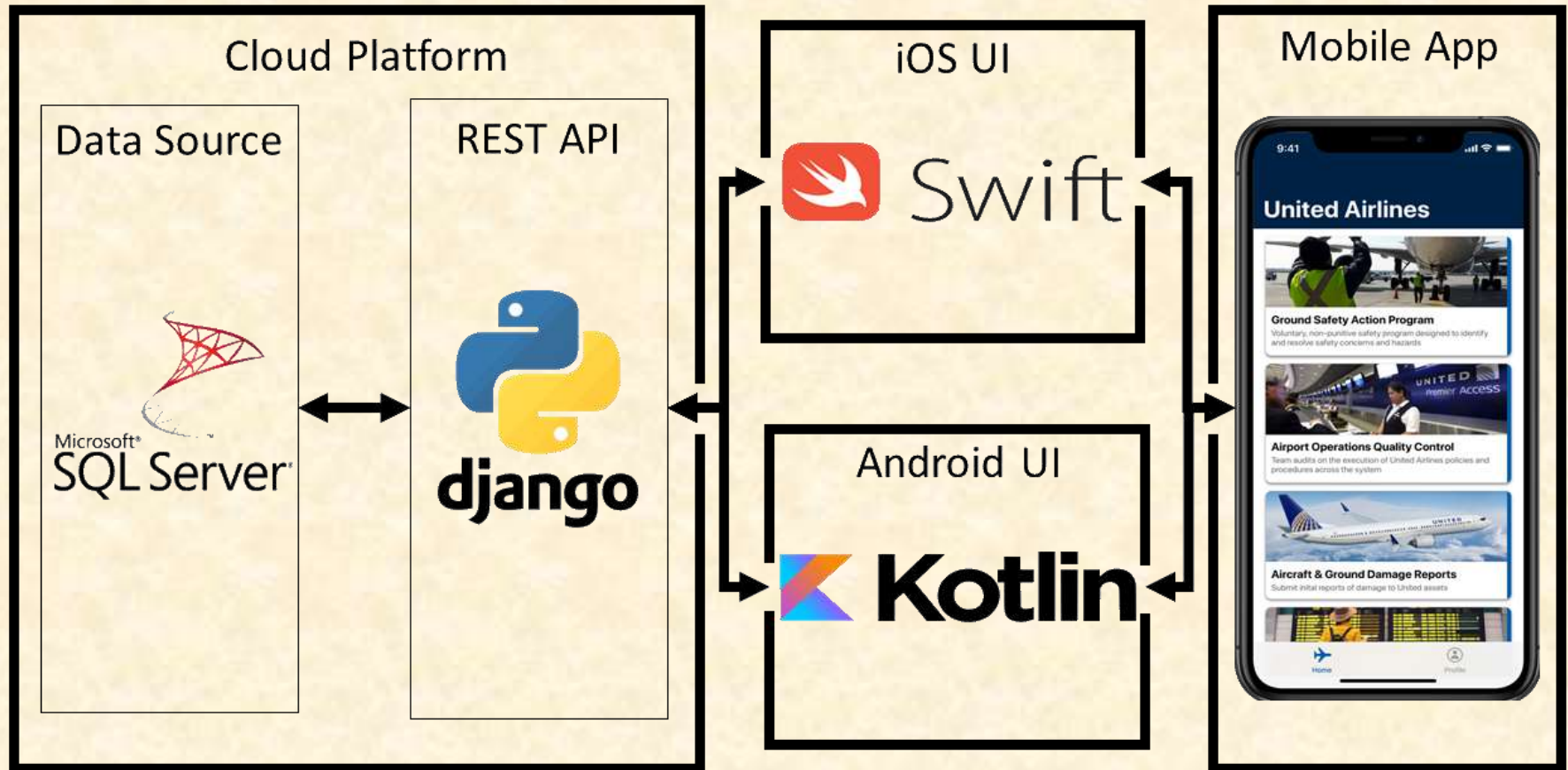
Department of Computer Science and Engineering  
Michigan State University  
Fall 2020

# Project Overview

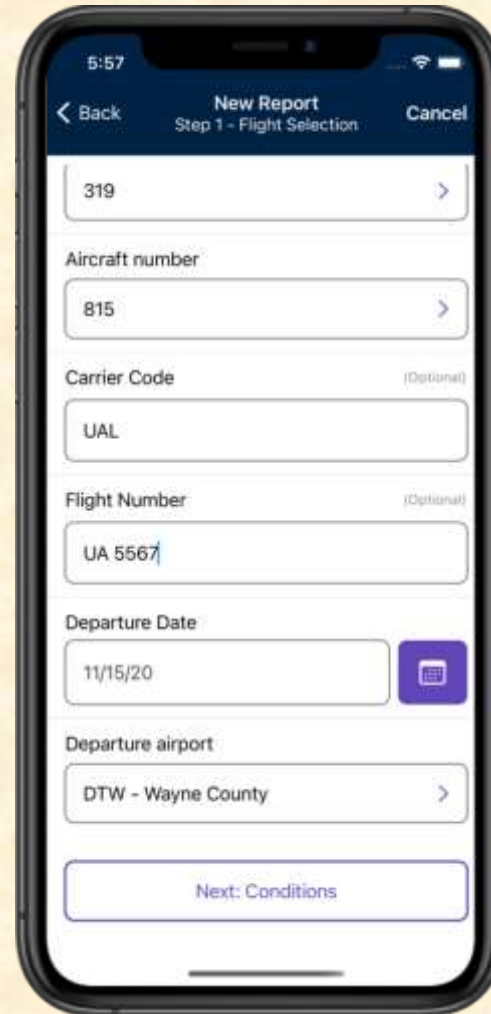
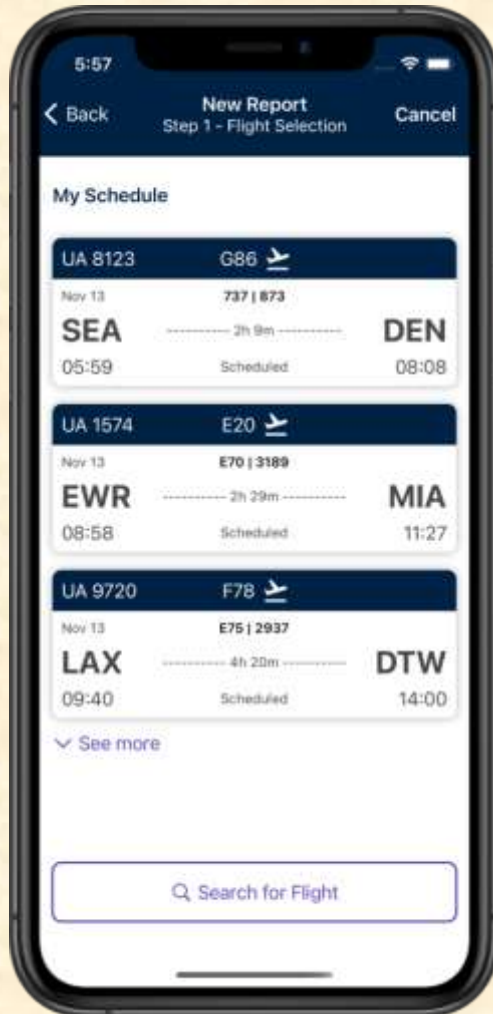
- Build second version of mobile app that allows employees to fill out reports or audits in real time
- Add 3 new forms- two audit forms and one damage form
- Create additional functionality to allow more information to be recorded
- Use and connect to United's new database
- Redesign user interface for simple submission process



# System Architecture



# GSAP Form Process



# GSAP Form Fill-out contd

The image displays two sequential steps of a mobile application form for reporting an incident. The first screen, titled 'New Report Step 3 - Incident Information', shows the user entering 'ATL - Hartsfield-Jackson ATL' as the incident station, selecting 'Yes' for 'Was the issue reported immediately?', providing 'jacob.macbrien@united.com' as the manager notified, selecting 'Exit Door' as the work area, and entering 'Door handle on rear exit' as the location description. A 'Next: Narrative' button is at the bottom. The second screen, titled 'New Report Step 4 - Narrative', shows the user entering 'Broken Door Handle' as the subject and 'On arrival, door handle was discovered to have damage. Door can still be opened and used. Repair necessary.' as the narrative. A 'Photos and Video' section with a plus icon is present, and the 'Do you want to suggest a resolution?' question has 'No' selected. A 'Submitted' button is at the bottom.

**Step 3 - Incident Information**

Incident station  
ATL - Hartsfield-Jackson ATL

Was the issue reported immediately?  
 Yes  No

Manager notified  
jacob.macbrien@united.com

Work area of incidence  
Exit Door

Location description (Optional)  
Door handle on rear exit

Next: Narrative

**Step 4 - Narrative**

Subject (Keywords)  
Broken Door Handle

Narrative  
On arrival, door handle was discovered to have damage. Door can still be opened and used. Repair necessary.

Photos and Video  
+

Do you want to suggest a resolution?  
 Yes  No

Submitted



# MOCHA Checklist questionnaire



MOCHA

**Audit Information**

Lead Auditor  
Hani Habhab

Include Weighted  
 No  
 Yes

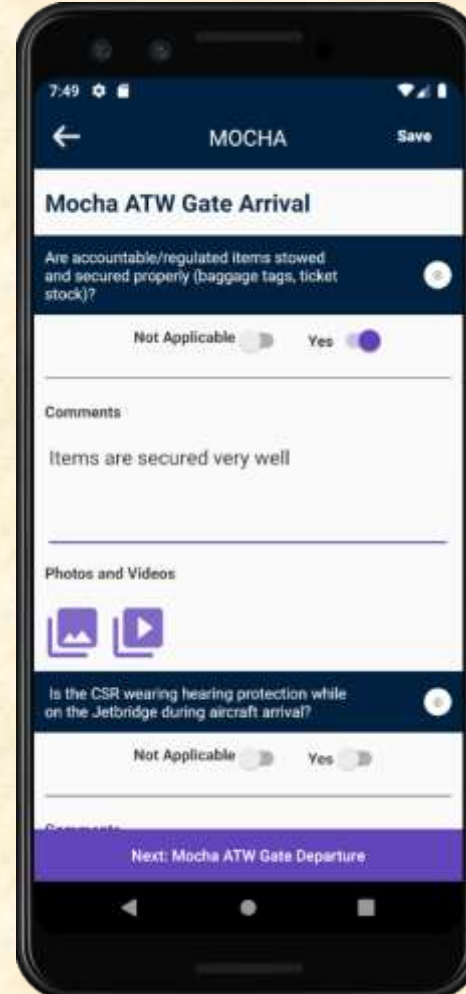
Division  
Technical Operations

Station Audited  
IAH

Audit Category  
 Initial  
 Surveillance  
 For Cause

Audit Class

Next: Mocha ATW Gate Arrival



MOCHA

**Mocha ATW Gate Arrival**

Are accountable/regulated items stowed and secured properly (baggage tags, ticket stock)?

Not Applicable  Yes

Comments  
Items are secured very well

Photos and Videos

Is the CSR wearing hearing protection while on the Jetbridge during aircraft arrival?

Not Applicable  Yes

Next: Mocha ATW Gate Departure



# ERS First Report Fill-out

7:36 ERS

**Aircraft Information**

Airline  
United

Aircraft Type  
777

Aircraft Number  
3216

Next: Damage Information

7:37 ERS

**Damage Information**

Report Location  
ORD

Time Found or Occurred  
19:37

Type of Damage  
Aircraft Ground Damage

Technician Initial Assessment of Damage

- Unknown
- No Damage (Technician Sign-Off)
- Within limits (Technician Sign-Off)
- Out of Limits (Technician Sign-Off)

Operational Impact

- Cancellation
- Substitution
- Delay
- Cost



# ERS First Report contd.

7:38 ERS

**FOA Information**

Is this a found on arrival (FOA)?

- FOA - Found on Arrival (discovered within 15 min of arrival)
- Late FOA - Found after 15 min of arrival
- Non-FOA - Damage occurred at the reporting location

Inbound Flight Number

56421

Upline Station

NWS

Upline Contact Information

Austin Evans - Phone: 516123456

Next: Submitted By

7:39 ERS

**Submitted By**

Job Title

Aircraft Mechanic

Phone Number

616654321

Email

tu.le@united.com

Submitted By

Tu Le

Manager Supervisor

Jake Macbrien

Submit





# What's left to do?

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- Redesign specific pages for GSAP form based on testing feedback
- Photo/Video Saving feature
- Present to Client for feedback



# Questions?

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