LAPA

( Los Angeles Photo Archive / Sidewalk Repair Project)

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Introduction
  - Project Purpose
  - Project Goal

Areas
  - Requirements
  - Android
  - Azure Database
  - Testing Framework

Todo
Project Purpose

Before

After

- BEFORE_0014AX_20170801....jpg
- AFTER_0014AX_20171101....jpg

Presented by:
Brian Kan
LAPA v.1.0

- **Tag and Upload Photos**
  - Category, Fields, Latitude, Longitude
- **Database**
  - Microsoft Azure
  - BLOB Storage Container
- **History**
- **Settings**
PROJECT GOALS

● Modify
  ○ Android Application
  ○ Azure Backend

● Testing
  ○ Testing and Bugfixes

● Overhaul
  ○ UI

● Implement Real Categories
  ○ Specified list of metadata categories
Requirements

- Tagging Before/After Photos
- Mark a primary image
- Categories and Fields

- Launch LAPA from a Link
  - boephotoarchive://WebApplication/RepairTaskID/ABCD-1234
<table>
<thead>
<tr>
<th>Category</th>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sidewalk Repair</td>
<td>Permit No.</td>
<td>#5678</td>
</tr>
<tr>
<td>Sidewalk Repair</td>
<td>Work Order No.</td>
<td>#AB123</td>
</tr>
<tr>
<td>Sidewalk Repair</td>
<td>Comments</td>
<td>Initial Assessment</td>
</tr>
<tr>
<td>Sidewalk Repair</td>
<td>Coordinates/Lat</td>
<td>34.068438</td>
</tr>
<tr>
<td>Sidewalk Repair</td>
<td>Coordinates/Lon</td>
<td>-118.362771</td>
</tr>
<tr>
<td>U-Permits</td>
<td>Ref No.</td>
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</tr>
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<td>#U5698</td>
</tr>
<tr>
<td>U-Permits</td>
<td>Work Status</td>
<td>Pending</td>
</tr>
<tr>
<td>U-Permits</td>
<td>Coordinates/Lat</td>
<td>34.064404</td>
</tr>
<tr>
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<td>Coordinates/Lon</td>
<td>-118.173100</td>
</tr>
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Azure Backend

- BoE uses Microsoft Azure Cloud services for its backend storage needs
- The LAPA Android application functions within the existing BoE storage framework.
The LAPA application has two different but related storage requirements,
- Data in structured tables provided by an Azure Database, and
- Containerized Azure Blob storage
The inherited backend data structure allowed for each and every image to record multiple associated meta information.

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Azure Backend

- However, several changes to the schema were required to reflect new data requirements
  - Sort order display of fields in Android app
  - Whether a field was required to be completed by the field engineer
  - Type of field to be displayed in Android app
Android UI

- User interface changes to make UI less opaque to user
- Changes to backend reflected in frontend
- Reduce number of Activities

Presented by: Phillip Han
Android UI

![Android UI Screenshots]
Android UI

Dashboard

Tags status: up to date!
Required Permissions: all granted
Repair Task ID: null

0 image(s) waiting to upload

PABOE

Tags status: syncing...
Required Permissions: all granted
Repair Task ID: null

0 image(s) waiting to upload
Android UI

Photo Archive

Select images to upload
Recent In-app Images

Select FROM APP

Recent gallery Images

SELECT FROM GALLERY

Tags:

Categories

All

Radio Button Title
- Testing Radio Button A
- Testing Radio Button B

Checkbox Title
- Testing Checkbox A
- Testing Checkbox B

Comments
Android UI
Android UI
Android UI
Mockito

Presented by:
Araceli Lopez
Integration Test

Presented by: Araceli Lopez
User Interface Tests

![Diagram showing layers of UI Tests with Espresso at the top.](image-url)
Espresso
Tablet Compatibility

- A large portion of expected usage of the app will be on tablets
- Android applications designed on phone-sized screens are not always perfectly scaled to tablet dimensions
- Separate layouts can be designed to better fit the dimensions of larger devices
Tablet Compatibility

Taking advantage of the larger screen size

- Allow the user to see a launched fragment without discarding the current fragment

First, heaven be the record to my speech,In the devotion of a subject's love,Tendering the precious safety of my prince,And free from other encumbering hate,Domine I apparit, to this princely presence.More, Thomaes, Moreby, do I turn to thee,And mark thy greeting well, for what I speak:My body shall make good upon this earth,Oh my divine soul adorn it in heaven, Thou art a traitor and a miscreant,So good to be so and too bad to live.Since the mere fair and crystal is the sky,The gull or seem the clouds that in it fly:Once more, the more to aggravate the note,With a fall truller's name stuff thy thoughts,And wish, so please my sovereigns, are I move,What my tongue speaks my right drrum sword may prove.
Project Timeline

Plans for Spring

1. Finalize Android UI Changes
2. Complete Testing Suite
3. Testing and Bug Fixing
Thank you!