Feature 2: Site Photo Gallery with Geo-tagging

# 1. Feature Summary

Allows field engineers to upload site photos using the mobile interface. Each photo is auto-tagged with:  
- GPS coordinates (latitude, longitude)  
- Timestamp  
- Associated project and user

# 2. Database Schema

Table: site\_photos  
- id (PK)  
- project\_id (FK)  
- user\_id (FK)  
- image\_url  
- caption  
- latitude  
- longitude  
- created\_at

# 3. API Endpoints

POST /photos/upload  
- Auth required  
- Accepts image, caption, project\_id  
- Auto-tags with user and geolocation  
  
GET /photos/{project\_id}  
- Returns list of all photos for a project  
- Optional filters: date, user

# 4. Frontend UI

Mobile Dashboard Additions:  
- 'Upload Photo' button  
- Form with caption, attach photo, auto-fill location  
- Confirmation and gallery update  
  
Gallery Tab:  
- Grid/list of all uploaded photos  
- Filter by user/date  
- Click to enlarge and view meta

# 5. Geo-Tagging Logic

- Use HTML5 Geolocation API  
- Auto-fills lat/long if browser allows  
- Fall back to manual location selection if blocked