

Claude Code Prompts for Debugging Listing Lift Photo Upload Issues

Context

This is a Next.js 14 app that allows homeowners to upload photos for AI enhancement. Photos are uploaded to AWS S3 using presigned URLs. The app uses Prisma for database and stores the S3 `cloud_storage_path` in the database.

Known Issues

1. **HEIC photo previews don't work during upload** - JPEG, PNG, WebP work fine, but HEIC files show broken previews
 2. **Admin dashboard shows broken photos** - When admin views submissions, all photos appear broken/can't load, suggesting S3 upload may be failing
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PROMPT 1: Diagnose the Photo Upload Flow

I have a Next.js photo upload app with the following issue: photos appear broken **in** the admin dashboard after being submitted. Here's **the upload flow**:

1. User selects photos **in** PhotoUploader component
2. On submit, SubmissionForm calls `uploadPhotos()` which:
 - Gets presigned URL from `/api/upload/presigned`
 - Uploads file directly to S3 using PUT request
 - Stores the `cloud_storage_path` **in** database
3. Admin views photo by fetching URL from `/api/file-url`

Please analyze the following code **and** identify potential issues **in** the upload flow:

[PASTE THE CODE FROM ALL_CODE.md HERE]

Specifically check:

1. Is the presigned URL being generated correctly?
 2. Is the file being uploaded to S3 with correct headers?
 3. Is the Content-Disposition header being handled properly?
 4. Is the `cloud_storage_path` being stored correctly **in** the database?
 5. Is the file URL being retrieved correctly **for** display?
 6. Could there be CORS **or** permission issues?
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PROMPT 2: Debug HEIC Preview Specifically

I'm using `heic2any` library to convert HEIC files to JPEG for preview, but HEIC previews are still broken. The code is in `photo-uploader.tsx`.

Here's the relevant code:

[PASTE photo-uploader.tsx CODE HERE]

The issue:

- JPEG, PNG, WebP previews work fine
- HEIC files show broken preview thumbnails
- The `heic2any` conversion `is` supposed to happen `in` `convertHeicToJpeg` function

Please analyze:

1. Is `heic2any` being imported `and` used correctly?
2. Is the `async/await` flow correct `for` HEIC conversion?
3. Could there be a race condition `or` timing issue?
4. Is the blob URL being created properly after conversion?
5. Are there any error handling gaps?

PROMPT 3: Debug S3 Upload Specifically

Photos uploaded to S3 via presigned URLs appear broken when retrieved. Here's the flow:

****Presigned URL Generation (lib/s3.ts):****

[PASTE s3.ts CODE HERE]

****Upload API Route (app/api/upload/presigned/route.ts):****

[PASTE upload-presigned-route.ts CODE HERE]

****File URL Retrieval (app/api/file-url/route.ts):****

[PASTE file-url-route.ts CODE HERE]

****Client Upload Code (submission-form.tsx - uploadPhotos function):****

[PASTE the uploadPhotos function from submission-form.tsx]

Please analyze:

1. Is the presigned URL being generated with correct parameters?
2. Is `Content-Disposition` being set correctly `for` the signed headers?
3. When client uploads, are the headers matching what the presigned URL expects?
4. Is the public/private path logic correct?
5. Is `getFileUrl` returning the correct URL format?
6. Could the region `or` bucket configuration be wrong?

PROMPT 4: Full Diagnostic Request

I have a Next.js 14 + Prisma + AWS S3 photo upload app with two issues:

****Issue 1: HEIC Preview Broken****

When users upload HEIC photos, the preview thumbnails are broken. Other formats (JPEG, PNG, WebP) work fine.

****Issue 2: Photos Broken in Admin Dashboard****

After submission, when admin views the photos, they all appear as broken images (see attached screenshot showing "234" text with broken image icon).

****Architecture:****

- Photos uploaded via presigned URLs to S3
- cloud_storage_path stored in Prisma/PostgreSQL database
- Admin fetches file URL via /api/file-url endpoint
- Using AWS SDK v3

Please analyze ALL the following code files and provide:

1. Root cause analysis for each issue
2. Specific code changes needed to fix each issue
3. Any additional debugging steps I should take

[PASTE ALL CODE FROM ALL_CODE.md HERE]

PROMPT 5: Quick Check for Common Issues

Quick diagnostic check for S3 presigned URL upload issues:

1. In this code, when isPublic=true and ContentDisposition is set, does the presigned URL include content-disposition in signed headers?
2. If yes, is the client sending the Content-Disposition header when uploading?
3. Check this upload code - is it sending the right headers?

```

typescript
// From submission-form.tsx
const hasContentDisposition = uploadUrl.includes('content-disposition');
const uploadHeaders: Record<string, string> = {
  'Content-Type': contentType
};
if (hasContentDisposition) {
  uploadHeaders['Content-Disposition'] = 'attachment';
}

const uploadRes = await fetch(uploadUrl, {
  method: 'PUT',
  body: photo.file,
  headers: uploadHeaders
});

```

Is there a mismatch between what the presigned URL expects and what the client is sending?

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What to Bring Back to DeepAgent

After Claude Code analyzes the issues, please bring back:

1. The specific root cause(s) identified
2. The exact code changes recommended
3. Any additional context or questions from Claude Code

I can then implement the fixes based on Claude Code's analysis.