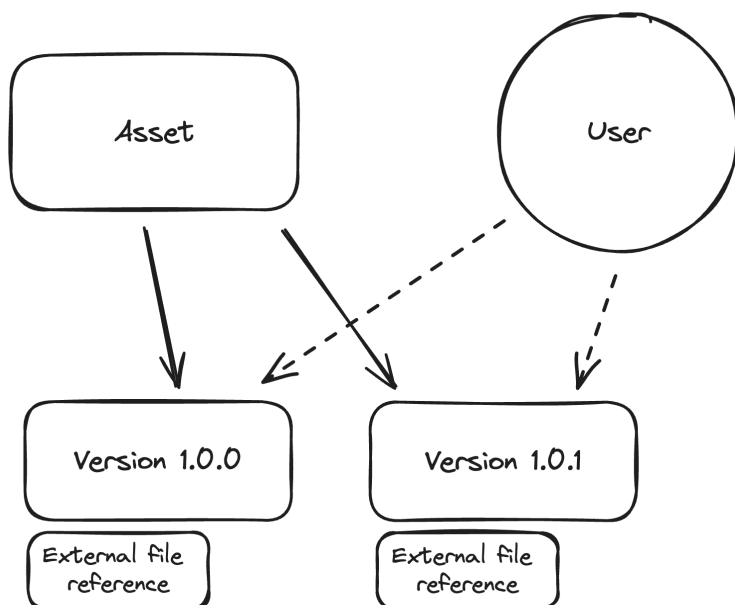# DB Design

Using Drizzle ORM + SQLite to try out something new. Should be pretty trivial to switch to PostgreSQL if I eventually decide I want to (the power of ORMs). Currently saves the actual file to the server's file system in a temp folder, but eventually should use S3 or some other cloud/local object storage solution.

Asset	Path, display name, keywords, many versions
User	Pennkey, full name, hashed password (+ salt), school (for email), many versions
Version	Semver, changelog, author, file reference, file extension, one asset, one author

We could add another table for keywords, but that would probably be better for a search DB and I didn't want to spend infinite time implementing this stuff

Assets shouldn't store more than they need to – most metadata about changes and the actual file reference itself should be in Version entries as it's version specific information.

Assets could theoretically have "owners" but we haven't actually defined any of that so I instead kept ownership to just versions.

Users are also asked to provide their school so we can generate their email from pennkey + school.

Built a frontend MVP with a component library to test out functionality, esp with some nice TypeScript libraries (trpc) that give full end-to-end type safety. Need to figure out a better method of file transfer. Currently we're encoding files in base64 and just sending them as part of the JSON body, which works fine for uploading but is quite jank on the way back.

See images below for UI and functionality.

Create New Asset

Path

project:scene:asset

Display Name

My Awesome Asset

Description

Keywords

Add

Has initial version?

Semantic Version

1.0.0

Asset File

CHOOSE FILE   No file chosen

Submit

Sign Up

PennKey

janedoe

Password

••••••••

Name

Jane Doe

School

None ▾

Submit

Already have an account? Log in here.

Asset Database

Logged in as
johnmoney
Logout

+ New Asset   ⚙ Coming Soon

Path	Display Name	Keywords	
johnmovie:demo:chair	Very Cool Chair	None	Details →
johnmovie:demo:dogworld	Dogworld Set	dogs dogworld	Details →

← Assets

Very Cool Chair

johnmovie:demo:chair

No keywords

Versions

semver	changes	author	file id	
v1.0.0	Initial version	johmoney	c539d70a-a0d8-48d3-887f-225ae1553bc2	⬇ Download

Here's what assets look like stored in the filesystem (temporary folder)

92db171e-dad6-459e-b4d0-dd38b157f5a3.asset	Today, 4:56 AM	55 KB	Document
f5975693-d4dd-4743-a30c-d2c972c28cce.asset	Today, 4:55 AM	17 KB	Document
6f871298-06b9-4d6b-b83b-62559581cb24.asset	Today, 4:54 AM	279 KB	Document
6e6092d2-30fb-41a2-b0ff-f3b2626b9060.asset	Today, 4:53 AM	225 KB	Document
96a3831a-e543-40d5-947a-5691e232937f.asset	Today, 4:50 AM	297 KB	Document
a85ac2cd-c615-4734-9b76-f067f9a43ad0.asset	Today, 4:48 AM	279 KB	Document
ccceea17-8741-498f-90c8-562c35a79316.asset	Today, 4:46 AM	225 KB	Document
JetPackResourceBundles	Today, 4:13 AM	--	Folder