

Contraint Category	Implementation Constraint	Solution
Hardware & Software Platforms	<p>Mac OSX update breaks code due to permission issues.</p> <p>Gem updates might also cause some dependancy issues.</p> <p>The project limits one to using only CSS, SQL, HTML & Ruby. So I won't be able to use SASS to rapidly generate CSS.</p>	<p>Avoid updating Mac during project and avoid doing gem updates.</p> <p>Only use my Mac to build the app in case my PC uses different versions of the code I need causing dependency conflicts.</p> <p>Dedicate more time to writing CSS since I won't be able to use SASS.</p>
Performance Requirements	<p>All CRUD functionality should take less than 20 seconds to run.</p> <p>I lack a knowledge of caching tools such as Redis or the time to properly understand them so won't be able to use them. This is a local running project so CDNs won't be able to help with the handling of resources nor will caching aids like Cloudflare or Varnish.</p> <p>JavaScript is forbidden in this project so performance enhancing aspects of Ajax can't be used.</p>	<p>I'm working on my local machine with no need for VPNs or virtual machines which would hinder performance. I also should involve handling enormous amounts of data that require resource intensive Ruby functions & SQL statements.</p> <p>I should also avoid installing any resource intensive software on my machine or one's that end up using ports intended for my local servers for Sinatra and my Database.</p> <p>Thankfully since the project will be demonstrated on my local device I shan't have to worry about the risk of denial of service attacks.</p>
Persistent Storage & Transactions	<p>Code to be stored on local device using PostgreSQL. Project is likely to be less than 100MB.</p>	<p>Local PostgreSQL database is adequate to house the size of the project.</p> <p>I can use the Postico GUI to get a better view of the data & use Normalisation improve the layout of my tables if they start to get too complicated or bloated.</p> <p>Restful transactions will be handled by Sinatra.</p>
Usability	<p>Sinatra must be used as a front end for CRUD functionality. I can't just manually enter data in the database via SQL (unless for testing).</p> <p>I need to factor in Accessibility and remember some users might use screen readers.</p>	<p>Use Sinatra's MVC functionality and erb files so I have a front end to submit forms to my database</p> <p>To take screen readers into account I should remember to leave information in the form fields to describe what they concern eg "first name" field.</p>

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Budgets	No Budget so no access to paid for software or paid labour. Also limited to using my own hardware.	This must be all my own work and I have to use free software. My own MacBook is thankfully powerful enough to run the app I am making.
Time Limitations	1 Week	Request time extension from tutors only in dire circumstances such as illness. There is no way to chance the time constraint devoid of very serious circumstances.