

Constraint	Possible effect of constraint on Product	Solution
Hardware and software platforms. Ideally want a responsive app that is tested and works on all platforms. Development environment limited to laptop / OSX CodeClan build	May show limitations or not work on alternative platforms or browsers other than desktop Chrome. May affect ability of user to read, select and edit relevant data fields. this may be too much work for the time/skills available	Target application limited to single user / single platform instance Use Ruby with Sinatra framework on single laptop.
Performance requirements: Response times to actions (trigger to change screen, new query, save confirmation etc) should be less than 1 second, ideally shorter	Slow response time leading to user dissatisfaction. Lags in response to user actions. In extreme case might appear not to work at all. However, prioritising performance might lead to slower development at the expense of delivering desired functions.	Not considered likely constraint for single user operation on single machine. Assess responsiveness during development and testing and review if likely to be unacceptable.
Persistent storage and transactions. No defined upper limit on number of records.	Limits on record numbers, speed of response, portability. Product may fail / cease to function if too many records are added.	Use REST principles for interface, PostgreSQL for database operations. Size of database likely to be generated by single user considered unlikely to reach any system limitations.
Usability. User should not need training to work out how to use product.	Limited use of product, potential for abandonment.	Use of existing framework to give familiar look and feel to product. 1 to 1 intro to use of product if requested.
Budgets / Resources No cash budget available. Single developer solo project.	No option for sub-contracting of coding / development. No purchase in modules or building block code.	Single developer project. Use familiar technology to minimise learning curve (Ruby / Sinatra / Chrome) Essentially no options to expand, so need to plan/limit development with single developer resource
Time limitations. Total calendar duration available is 1 week as a hard deadline	Failure to deliver MVP by deadline. May lead to limits on extension functionality that can be implemented	Effective planning. (use of Trello boards, develop class diagrams to guide early development. Prioritise delivery of MVP features first. Daily progress review against target. Limit enhancements beyond specification limits until after MVP delivered. Re-use/development of code from previous homework for database operations to leverage previous work.