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| **Topic** | **Possible Effect of Constraint on Product** | **Solution** |
| **Hardware and software platforms** | * Project limited to core Android API without external libraries * Could limit options of functionality and requires that features are supported by current Android Studio version 2.3.3 | * Design app to only use supported features * Research workarounds when desired feature is not supported in current version |
| **Performance Requirements**   * **Adaptability** * **Reliability** * **Security** * **Maintainability** | * Possible security risk as unsecured database * Bugs could impact reliability of app and result in it crashing * Hardcoding data into classes could make maintainability challenging | * If project were to be extended beyond personal use, this would need addressing via encryption, password access etc. * Code needs to be debugged and tested thoroughly * Avoid hardcoding data wherever possible and use database data instead |
| **Persistent storage and transactions** | * Use of SQLite for repeated queries could impact memory use * Limits on memory restrict how many images can be used | * Ensure database is closed after every use, following good practice guidelines * Ensure use of database occurs in appropriate files * Private use only, so security issue not a factor |
| **Usability** | * User might not be sure how to navigate a new app * Questions of accessibility around images, navigation * User might enter incorrect data | * Ensure design follows common practice guidelines * Include content description and image descriptions to maximise accessibility * Ensure correct data inputted with validation checks when user enters information |
| **Budgets** | * Limited or non-existent budget restricts scope of project | * If project were to be extended beyond personal use, would entail getting funding from private investors or crowd-sourced |
| **Time Limitations** | * Tight deadline restricts scope of project and viability of complex features | * Ensure realistic plan and project management timeline using Trello |