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## 1 WHAT DESIGN DECISIONS CHANGED?

Throughout development of the Many Voices Publishing Platform, only a few changes were made throughout development that strayed from the original requirements and planning.

|   | Design                                   | Description of What Happened  | Comments   |
|---|--|---|--|
| 1 | User login & Authentication              | We were unsure if we would be using 3rd party login or rolling our own; we used Google's oAuth backend  | 3rd party login allowed us to simplify the new account creation experience.  |
| 2 | Book compilation                         | LaTeX files are constructed in-memory and saved to disk before compilation, rather than being saved individually and constructed with <code>\include</code> and <code>\input</code> . | This allows us to more easily change the document design and to implement an easier data flow.   |
| 3 | Make text formatting transparent to user | Users can choose to write scraps with full LaTeX enabled, or in plain-text mode.  | This change allows for much more powerful document creation. Creating a table or a chart is now possible, which would not have been possible if the user had to use a GUI-based editor.  |
| 4 | Use passwords to authenticate users      | Instead of passwords, a user logs in with their Google account. A token is generated that is then stored in their browser and in the backend database.                                | Users no longer need to remember a password and instead of storing a password, we can store unique, randomly generated tokens, removing the risk of password leakage.  |
| 5 | Passwords must be salted and hashed      | Instead of passwords, tokens are used. Tokens are hashed but not salted to allow for token lookup directly.   | Tokens do not need to be salted, as they are already unique to the service and leaking a token does not harm user security. Tokens are stored salted, and so still require a large amount of computation to break a single token.                      |
| 6 | Use a SQL database for user data         | Instead of a SQL database, a document storage database was used.  | Using a document storage database made sense, since the data we were storing was already created as document-style JSON objects. Storing these and retrieving these as JSON simplified the marshalling to and from SQL statements would have required. |

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