Sprint 3 did not get completed due to competition with paid work, but I judged it better to move on to the next sprint with what had been completed rather than delay the end of sprint 3. What got left out and what is the remaining Project backlog?

In Sprint 3, I did not manage to implement the following:

1. German Support in the solver tool.
2. Hint selection by the user is saved in the puzzle state at the time of selection.
3. The availability of hints is to be maneged via the database on a per-puzzle basis.

However, I did manage the following which were not initially included in the sprint backlog:

1. Cursor and backspace key press management.
2. Frequencies under the cryptogram.

And I identified the following new requirements:

1. Word break at line ends in the cryptogram when spaces are being shown.
2. Implement a build/deploy environment, probably with maven.

This leaves me with the following Project backlog:

- Support for German language puzzles.high
- German language interface for the solver client.med
- German support in the website with the abiltiy for a translator to gradually translate all the English pages into German without needing access to the Joomla backend.   (JoomFish?) medium

- Support for editing of puzzles which have already been submitted.high
- Forum, integrated into the Joomla site (i.e. users registered automatically for both.).med

- Cosmetic makeover^{low - actually, medium, but not urgent}

- Numbers in Ciphers - either as non-encrypted digits or as part of the cipher, at the submitter's option. ^{high}
- Non 1-1 mappings in monoalphabetic ciphers.^{high}
- Polyalphabetic ciphers.^{med}
- Colour coding in client, especially highlighting of other instances of currently selected cipher char. ^{low generally, except for current char highlighting}

- Categorisation of puzzles by difficulty.^{high} Use of this categorisation in the selection/availability of puzzles. ^{high}
- Hint Management organised by puzzle category.^{med}
- Hint selection causes an automatic saving of the puzzle at that point.   Later saves cannot overwrite the hint status. ^{high}
- Submission of user puzzles.   We need some ways to organise these into a separate category from the "official" ones.   Possibly allow private puzzles just for certain users? ^{med}

- Emailing of a puzzle to some third party.^{low}
- Open Mind Software Company website.^{low}
- Browse puzzles by different categories, month, solution status, difficulty, etc.^{med}
- Random puzzle startup option.^{med}
- Avoid simple matches on "random Cipher" button in submission tool.^{low}
- Show frequencies in the submission tool.^{low}
- Allow re-sorting of the alphabet in the solver and submission tools, e.g. by cipher char, by plain char, by frequency.   (Will need re-implementing of alphabets so as not to use the tab-index as an id... Create own IDTextBox subclass.) ^{med}
- Direct external link to a random puzzle asa guest user without the Joomla surroundings.^{high}

- Button in solver interface to switch to full-browser outside Joomla framing/return to Joomla framing. ^{low}
- User comments on solved puzzles.   Only visible by and submittable by those who have solved the puzzle already.   Possibly split into formal ratings of difficulty, quality and free comment. ^{low}
- Think about the colour of disabled text boxes (i.e. punctuation) in the cryptogram.^{high}
- Create an "easy puzzles" area for solving simple puzzles with lots of hints.^{med}
- Deal with the problem of less than and greater than symbols (and incidentally other mathematical symbols too) within ciphers.   (these symbols are a problem because they are also the delimiters of script for most browsers.) ^{low}
- Allow saving of a set of user preferences against a user id.   e.g. preferred language, preferred difficulty etc. ^{low}
- Add confirmation dialogs to certain irreversible actions, e.g. "clear Solution" or hint selection.
- Add a bug-reporting and tracking mechanism of some kind. The current one - scribbled into my notebook and crossed out once fixed - isn't really going to be enough. ^{med}
- Implement a build/deployment environment, probably with Maven.^{low}