

Radical approach to learning Japanese

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Aim

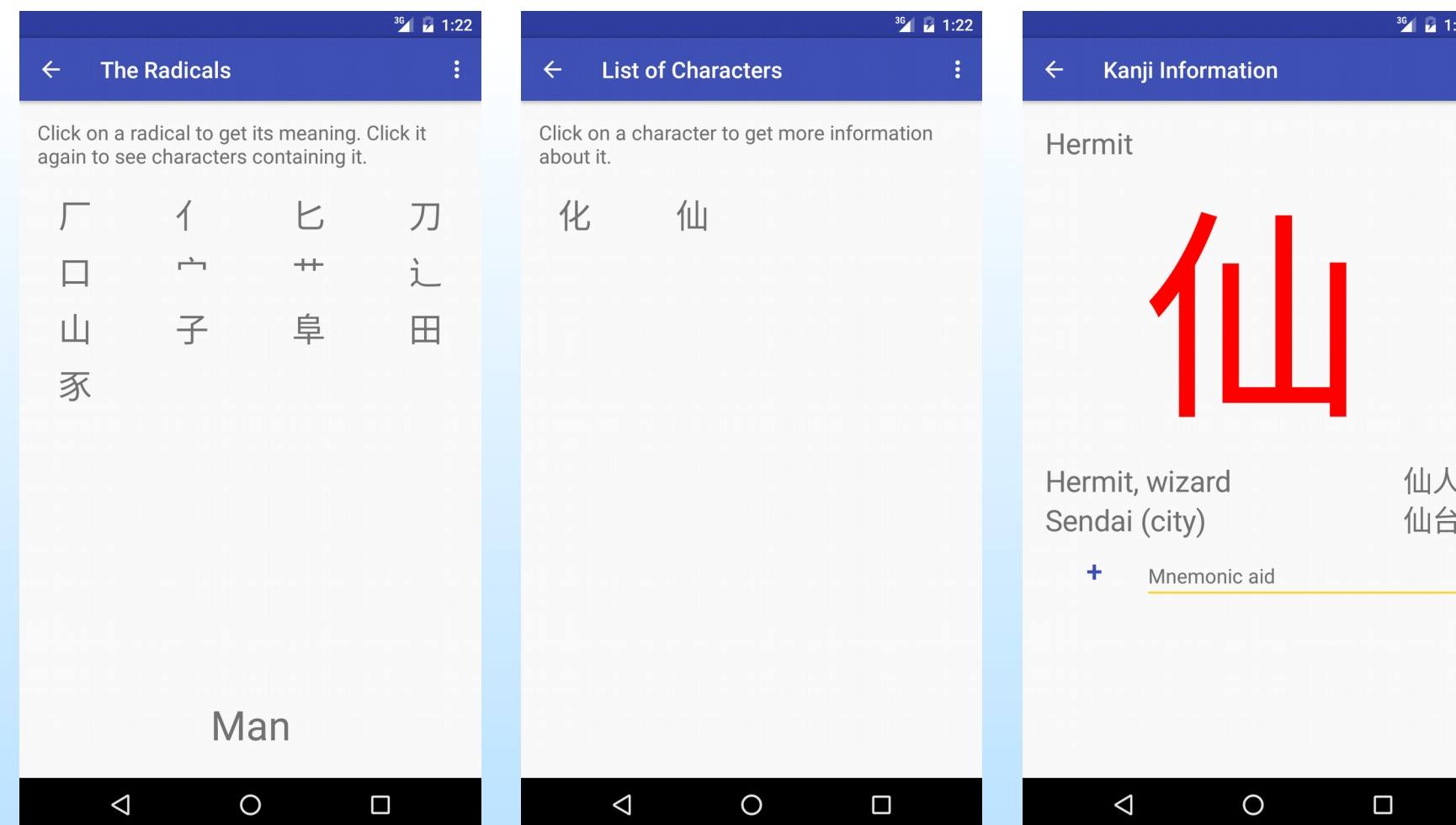
Learning a language is always difficult, so why not make it easier by using mnemonics? This Android application makes use of the unique characteristics of the Japanese *kanji* (characters that carry meaning) to allow the user to create memorable stories to make learning the 2,000 general-use *kanji* easier.

The database

The characters are stored in the database in plain text, with the radicals (or “parts” of the character) being stored as Unicode. This makes up the first two tables, a third being used to match the character to its constituent parts as well as create a virtual map to allow the user to view the details of the radical. The final table stores the vocabulary items.

Technologies used

- SQL (SQLite)
- XML
- Java
- Android SDK



Technical details

In order to add a new character to the database, the application has to “map” it out virtually. This virtual mapping is done by the first having the users select the radicals (the GetRadicals activity) before assigning a “major” and “minor” location of each of the radicals, by dynamically creating Spinners in the AddCharacter activity. Each location is then passed to the KanjiAdditionController to sort into a map, before assigning the radicals, as Unicode, to that map.

The RadicalSelection class is used to get a radical from the virtual map of a character (either a default character or a user-added one) before presenting the chosen radical. This radical is then displayed, along with its information from the database, in the RadicalActivity.

To create a consistent view across the various GridLayouts, a custom Adapter (the RadicalAdapter class) is used to populate the arrays from the DBHelper class.

User mnemonics are added to the database from the CharacterActivity, which calls a simple SQLite UPDATE statement in the DBHelper class.

