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The Touchscreen Toolkit

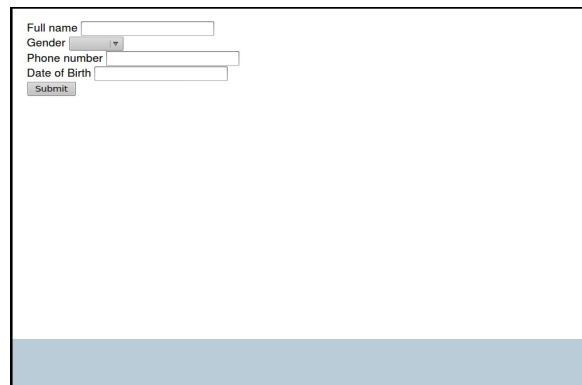
We created the Touchscreen Toolkit to simplify the development of touch-friendly user interfaces without requiring each page to be individually and consistently customized for touchscreens. It is a Javascript library that can be added to any HTML form. The library can be downloaded from <http://github.com/baobab/touchscreentoolkit>.

The Touchscreen Toolkit transforms standard HTML forms (Figure S7.A), just after they are loaded in a browser, into a set of wizard-like screens (Figures S7:B-E) showing each of the input fields on separate screens.

For each input field, the toolkit displays a customized full-screen window with:

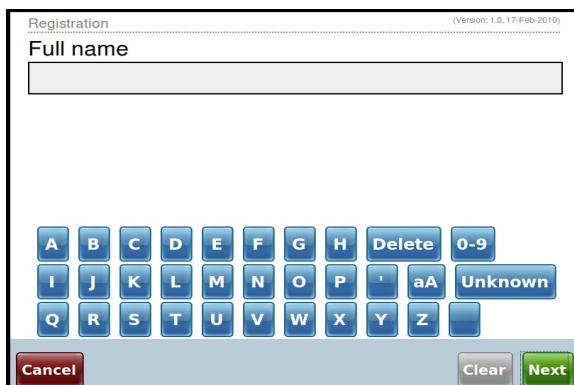
- Appropriate input controls
- User instructions
- Global navigation buttons (Next/Back)
- Data validation criteria (optional)

Fields can be “skipped” if a specified condition for each of the fields is not met.



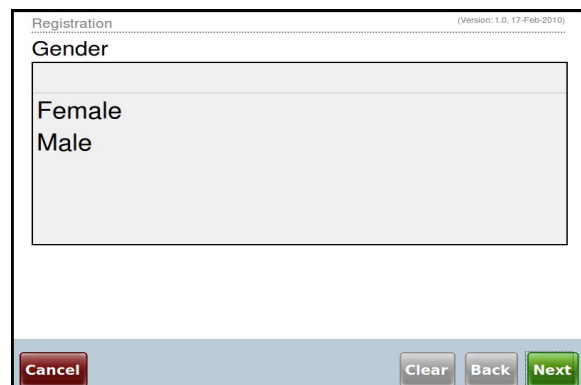
The image shows a standard HTML form with the following fields: "Full name" (text input), "Gender" (dropdown menu), "Phone number" (text input), "Date of Birth" (text input), and a "Submit" button. The form is displayed in a browser window with a light blue header bar.

Figure S7.A: Original HTML Form



The image shows the first wizard screen for the "Full name" field. The screen has a title bar "Registration (Version: 1.0, 17-Feb-2010)". Below the title bar is the label "Full name" and a text input field. At the bottom, there is a QWERTY keyboard with blue buttons for letters, numbers, and symbols, along with "Delete", "aA", and "Unknown" buttons. At the very bottom, there are three buttons: "Cancel" (red), "Clear" (grey), and "Next" (green).

Figure S7.B: First wizard screen



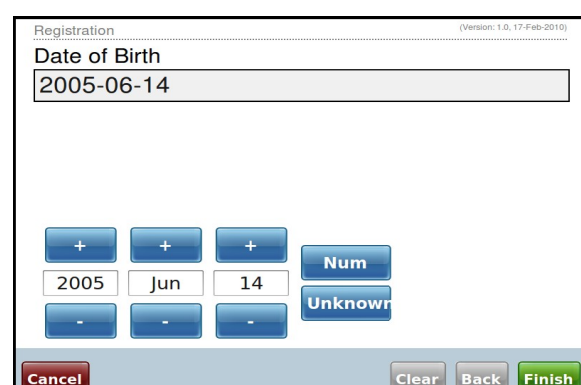
The image shows the second wizard screen for the "Gender" field. The screen has a title bar "Registration (Version: 1.0, 17-Feb-2010)". Below the title bar is the label "Gender" and a large text area containing "Female" and "Male" with radio buttons. At the bottom, there are three buttons: "Cancel" (red), "Clear" (grey), "Back" (grey), and "Next" (green).

Figure S7.C: Second wizard screen



The image shows the third wizard screen for the "Phone number" field. The screen has a title bar "Registration (Version: 1.0, 17-Feb-2010)". Below the title bar is the label "Phone number" and a text input field. At the bottom, there is a numeric keypad with blue buttons for digits, symbols, and "A-Z", along with "Delete", "Unknown", and "aA" buttons. At the very bottom, there are four buttons: "Cancel" (red), "Clear" (grey), "Back" (grey), and "Next" (green).

Figure S7.D: Third wizard screen



The image shows the final wizard screen for the "Date of Birth" field. The screen has a title bar "Registration (Version: 1.0, 17-Feb-2010)". Below the title bar is the label "Date of Birth" and a text input field containing "2005-06-14". At the bottom, there are date pickers for year, month, and day, along with "Num" and "Unknown" buttons. At the very bottom, there are four buttons: "Cancel" (red), "Clear" (grey), "Back" (grey), and "Finish" (green).

Figure S7.E: Final screen (note “Finish”)