

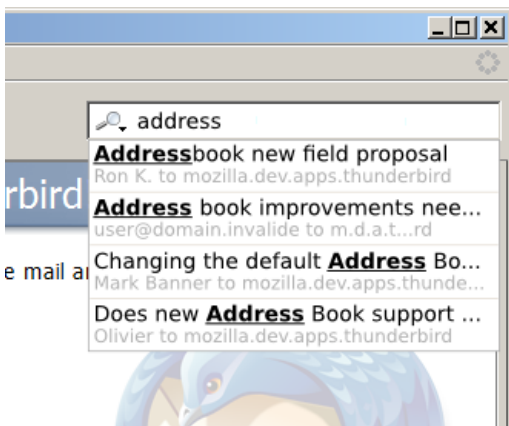
Mobile Design Pattern: Auto Complete

Introduction

There are lot of times when the user is supposed to enter in information which might be confusing/complicated to remember/understand and hence the chances of making an error are quite high. In those cases it would be nice to pre-empt the user or possibly give them a helping hand thereby reducing the chances of making errors. One such mechanism is known as **auto complete**.

What is auto complete

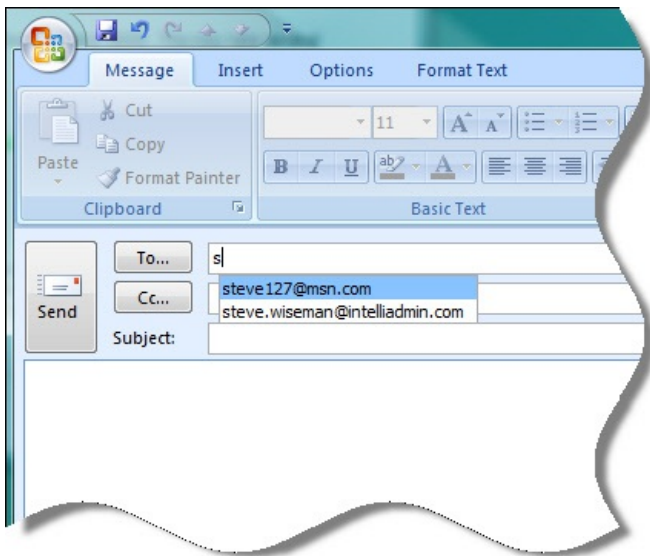
Auto complete is a mechanism provided by many websites, email clients, integrated development environment(IDE), interpreters etc. It involves a mechanism of completing the word/content based on the limited entry the user has made, it obviates the need for entering the entire content. It speeds up the overall interaction between the system and the user thereby leading to a more satisfied/impressed user.



Use When

Some potential user scenarios where it can be used are:-

- The possible suggestions/completion choices are finite and easily manageable from a user's point of view.



- Speed and accuracy of data entry is important for instance on reservation sites etc.

The screenshot shows a web form titled "Plan My Travel" with a "Mandatory" indicator. The "From" field contains the text "banga" and has an auto-complete dropdown menu open. The dropdown lists several train stations with their codes: BANGA (BXB), BANGAIN (BGAN), BANGALBAREE (BJY), BANGALORE CANT (BNC), BANGALORE CY JN (SBC), BANGALORE EAST (BNCE), BANGALORE PETA (BBF), BANGAON JN (BNJ), BANGARAPET (BWT), and BANGARAPET (BWY). The "BANGALORE CY JN (SBC)" option is highlighted. Other fields include "To" (with a placeholder "Enter City Name"), "Date", "Class" (with a "Select Class" dropdown), and "Ticket" (with an "e-ticket" option). There are "Find Trains" and "Reset" buttons. A note at the bottom states: "Information updated from July 2008, Please check before embarking on your journey. It is permitted at least two clear days before departure. For e-ticket booking can be done upto chart Preparation at least 48 hours before departure."

- The choices can be validated against either earlier entered user information or can be queried from the backend libraries/database etc.

How

When users have entered the first character, the application starts creating matches with the whole set available in the database and its get it through AJAX xmlhttprequest. Those matches are then directly shown underneath the edit box. The user can select the desired value once it has been spotted by using the cursor.

Usability guidelines

Some usability guidelines to follow while implementing auto complete are:-

- Highlight the part of the possible matches displayed with the actual string the user has entered
- Display the auto-complete information in a drop down/fly out menu, in place right below the field which has auto complete functionality enabled.



The screenshot shows the Google search interface. The search bar contains the text "Lacie Ma". Below the search bar, a dropdown menu displays a list of suggestions with their corresponding result counts: "lacie marie" (647,000 results), "lacie mac mini" (584,000 results), "lacie manual" (821,000 results), "lacie mac" (5,310,000 results), "lacie mac mini hard drive" (248,000 results), "lacie manshack" (154 results), "lacie madison" (456,000 results), "lacie mac icon" (129,000 results), "lacie max" (2,630,000 results), and "lance mannion" (111,000 results). The "lacie madison" option is highlighted. To the right of the search bar, there are links for "Advanced Search", "Preferences", and "Language Tools". A "close" link is at the bottom right of the dropdown menu.

- Allow the user to edit/delete the search string from the main field which in turn should modify the auto-complete options available to them

Plan My Travel * Mandatory

From *

To *

Date *

Ticket *

Quota *

Class *

☐ e-ticket

...ng updated from July 2008, Please
...arking on your journey.
...is permitted at least two clear

For e-ticket booking can be done upto chart Preparation at

Plan My Travel * Mandatory

From *

To *

Date *

Ticket *

Quota *

Class *

☐ e-ticket

- The user should be able to dismiss the auto-complete menu/drop down, in case they don't want to make use of the suggestions provided.
- Auto complete should always happen on the entire search string and not parts of it.

File Edit View Insert Format Tools Table Window Help

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Send Accounts Options... HTML

To...

Cc...

Subject:

No users available with the entered string
are available hence user does not get auto
complete choices to take from.

Entries with search string mayank
are available, hence auto-complete
option is available to the end user.

File Edit View Insert Format Tools Table Window Help

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Send Accounts Options... HTML

To...

Cc...

Subject:

Additional Resources

[MicroSoft help](#)

[Jquery autocomplete](#)

[Google blogs on auto complete](#)

[Auto complete demo'ed](#)

[Wikipedia](#)

[Yahoo developr's page](#)

--- Edited by Mayank on 30/06/2009 ---

