ProjectDeveloper.com

Search Engine Functionality Description

This is a slightly modified version of the document that was used for specifying the search engine development project's requirements.

➤ *We can customize and install website search engine that offers the advantages described here for most small to medium size websites, using the site own design and template. Further, we can customize the functionality for sites that offer different products, so that the users will quickly find what they are looking for.*

➤ *If you would like to use the search functionality description that appears in this file, or if you would like to get the same or a similar search functionality for your website please contact Project Developer, Inc. via http://www.projectdeveloper.com/Inquiry.html*

General Description

- ProjectDeveloper.com search results should appear on this website template, that is similar to http://www.projectdeveloper.com/SiteMap.html and so that the results appear on the area that is below the orange bar.

- I must be able to modify the search result template page design.

- At the bottom of each search results page should appear the same copyright line, Copyright © ProjectDeveloper.com. All rights reserved. that is done using JavaScript the same way it appears on http://www.projectdeveloper.com/SiteMap.html

- I must be able to modify fonts and other attributes of the search result page links and text through a style sheet.

Appearance

- For the user, the search functionality consists of

  o Search Window that should be placed on the orange bar.

  o Search Button that should be placed on the orange bar next to the Search Window. The Search Button activates the search engine.

    ▪ When the Search Window has been filled in, then user's clicking on the Search Window should empty it, so that it is ready for new text entry.

    ▪ The Search Button should consists of a Gif image with the word Search on it.

  o Line listing the following: "Total number of matches found:" followed by the total number of matches found.

    I must be able to modify the component order and text that appears on this line.

  o If there is no match to the search word(s) used, the following text should appear:

    No match was found for '[Search word(s)]'. Try a different search word or phrase.

    [Search word(s)] are here the actual search word(s) that were used.

  o Current page number and number of total pages phrase, for example, Page 1 of 1

    ▪ If the total number of pages exceeds 1, then on the first page after the total number of pages should be word Next. This should be a link that points to the next search page.

Continues

- If the total number of pages exceeds 1, then on the last page before word Page (followed by the current page number and the total number of pages) should be word Back. This should be a link that points to the previous search page.
- If the total number of pages exceeds 2, then on every page except the first and the last page, the Current page number and number of total pages phrase (as identified above) should be
  - preceded by word Back, which should be a link that points to the previous search page, and
  - followed by word Next, which should be a link that points to the next search page.
  - The current page number and number of total pages, and the navigation links as described above, should appear both before the search results, and after search results (unless there are no matches to the search).
  - All search results must appear in the order so that higher probability search matches appear first, and lower probability search matches follow. That is, all search results must be ordered and listed based on the search match' probability quality indicators.
  - Following search match' probability quality indicators should be used:
    - High probability match
    - Medium-high probability match
    - Medium-low probability match
    - Low probability match
    - Partial match
  - Each search result should appear with the Search Result Header line, consisting of the following:
    - Search result number, like 1, 2, and so on.
    - One of five search match probability quality indicators
    - Website section in which the article appears, followed by the article name, which should be a link. This link must point to the specific article that is the search match.
    - *I should be able to modify the article name that appears as a link (I may abbreviate some article names).*
  - Each search result should appear with its respective short description. (I will write the short descriptions for all of the relevant ProjectDeveloper.com HTML pages.)
- Under the search results should be the following text:

  To exclude search words from the search use word Not before the search word you want to exclude.

  Site Map can also be helpful for finding site content.
- The search functionality must function so that it adheres to the above principle.
- *I must be able to modify the component order and text that appears below the search results.*
- Up to 10 search matches should appear per search results page.

Functionality

- If the search window is empty and the user clicks on the Search Button (link), the following text should appear as the search result:

  Please enter one or more words or a phrase for the search.
- *I must be able to modify the text that appears if the search window is empty and the user clicks on the Search Button (link).*

- If the search word has not changed, the Search Button (link) button should not be functional. To put it differently, the user should not be able to perform precisely the same search repeatedly.

- Only selected ProjectDeveloper.com HTML pages should be part of the search criteria. I should be able to specify which ProjectDeveloper.com HTML pages are part of the search criteria.

- Each ProjectDeveloper.com HTML page that is part of the search criteria should have two sets of keywords: Primary and Secondary. (I will identify keywords for both sets – you can identify some of them for testing purposes). I should be able to add, insert, modify and delete the keywords.

- The keywords used to describe different HTML pages will not be unique, that is, I may use the same keyword to describe more than one HTML page. Similarly, HTML page short descriptions and entire page texts will contain some of the same words. Despite of this partial overlap, there should not be any repetition of the HTML pages presented as the search result, that is, every HTML page entry in the search result set should be unique.

- There should be a set of search words that are automatically excluded from the searches of individual keywords. An example of such words is "and." I should be able to add, insert, modify and delete words within this set of words that are automatically excluded from individual keyword search.

- Each ProjectDeveloper.com HTML page that is part of the search criteria should have a short description. (I will write the short descriptions for all of the applicable web pages.) I should be able to add, insert, modify and delete each HTML page description.

- For each search the following should be searched:

    1) Primary keywords

    2) Secondary keywords

    3) HTML page short description

    4) Entire HTML page text that the user sees on the page (this could be one of the fields that is searched, so that the field contain the page text that is entered there for every applicable HTML page)

    5) All of the above four categories for partial matches. For example, word "creativity" is a partial match of word "CreativityModel."

- As was stated above, if the search criteria contains more than one search word, then the search should be performed so that first all of the words are considered as a phrase, then each search word is searched for individually.

- The user should be able to exclude search words from the search by using word Not before the search word the user wants to exclude.

- The search matching probability should be established in the following way:

    1) Match in the Primary keywords – High probability match

    2) Match in the Secondary keywords – Medium-high probability match

    3) Match in the HTML page short description – Medium-low probability match

    4) Match in the entire HTML page – Low probability match

    5) Partial match in any of the categories as described above – Partial match

- Every HTML page should appear in the highest matching rank category. For example, if for an HTML page there is a match in the High probability match category, and also in the Medium-high probability match category, then in the search result set that HTML page should appear only as High probability match category.

- All search results must appear in the order so that higher probability search matches appear first (as indicated above) and lower probability search matches follow. That is, all search results must be ordered and listed based on the search match' probability quality indicators (as indicated above).

- o Further, all the matches should appear in the order of matching phrase and word matching frequency, so that
  - HTML pages that contain matches to the entire search phrase appear before other matches (phrase is defined here as more than one word in sequence entered by the user)
  - HTML pages that contain matches to all of the search words entered by the user appear before the HTML pages that contain matches to only some of the search words entered by the user.
  - HTML pages that contain matches to either complete or partial search words with higher frequency appear before matches with lower frequency. That is, the HTML page that contains, for example, 3 complete or partial matches to a search word, appears before the HTML page that contains 2 complete or partial matches to the same search word, and so on. Further, all the complete and partial matches to the search words should be added up, the ranking should be established so that the HTML pages with higher ranking are listed above the HTML pages with lower ranking. Of course, search words that are automatically excluded from the searches should not be included in this evaluation.

- The search functionality should not interfere with any of the existing ProjectDeveloper.com page or site features.

- All links presented on the search result pages should be local links, like, for example, pro0801.html (a local link), that is, without the http://www.projectdeveloper.com/ preceding the link.

- I would like to be able to save all the search phrases used by the site visitors (through the search functionality described here) and delete them when I choose to do so.

- With each search that resulted in the user selecting an HTML page among the search results the application should save the HTML page name that was selected among the search results.