Function Flow:

Main()

**If Parse is not selected or No or N In Crawl Option:**

**ParseCleanCheck.*SpellChecker*():**

Brute Force Matching of keyword with English Dictionary of words.

If Spell Check gives the correct word the text box is painted green

**getSynonyms():**

Using DataMuse API synonyms are extracted for the given searchword.

*extractTextFromHtmlPage*()

Converts the Html Pages to Text.

**spider.search()**

With the help of Boyer Moore we can search the keyword from the given set of HTML Files.

Merge Sort is used to display the webpages ranking.

Public static hashmap hmapForPaging provides the webpage ranking based on the frequency of the searchword occurrence.

**extractUsefulInsights():**

email-id, Phone numbers are extracted based on REGEX operation.

**EditDistance.*suggestions*()**

Based on the algorithm of Edit Distance it gives the suggestions of the word.

**If Parse is selected Y or Yes in Crawl Text Area Option**:

**ParseCleanCheck.*SpellChecker*():**

Brute Force Matching of keyword with English Dictionary of words.

If Spell Check gives the correct word the text box is painted green

**getSynonyms():**

Using DataMuse API synonyms are extracted for the given searchword.

**spider.search()**

With the help of Boyer Moore we can search the keyword from the given set of HTML Files.

Merge Sort is used to display the webpages ranking.

**Jsoup Crawling():**

Crawls the webpages based on the URL given.

**saveDesiredPAge()**

Stores all html pages in a folder.

***extractTextFromHtmlPage*()**

Converts the Html Pages to Text.

Public static hashmap hmapForPaging provides the webpage ranking based on the frequency of the searchword occurrence.

**extractUsefulInsights():**

email-id, Phone numbers are extracted based on REGEX operation.

**EditDistance.*suggestions*()**

Based on the algorithm of Edit Distance it gives the suggestions of the word.