Spell Rater

Software Design Document

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Date: 01/27/2017

Contents

1. INTRODUCTION

At the expense of pages with weak, thin or poor-quality content, Google has implemented numerous significant changes to its PageRank algorithm which reward excellent content on webpages with higher rankings in the search engine results pages (SERPs) since early in 2011.

The misspelling and typographical errors can be observed in content of the poor-quality webpages. If the written text in the web pages is not developed properly and is unable to convenience the task of conveying meaningful and useful information to readers, the web page has inherently little value. It makes the web page sophisticate as a text with no an expert content. Therefore, users will likely not stay long on the page. Bounce rate is a site value factor for ranking pages in search.

The pages with one or two typos cannot be avoided concerning and also not all junk pages are contained with only misspelling. However, the correlation between poor quality text content and the minimal value to users is high, and numerous, sloppy spelling errors are often indicative of low-value content. It should be ensured that it is well-written, clear in its objective, well-written, clear in its objective, and free from misspelling to optimize the value of your text content to readers and thus to search engines. The typos can be a reason to diminish the value of the content and the worst-case scenario is when the keywords of the text are misspelled, the very important message it tries to convey is not expressed.

1.1 Purpose

The purpose of this software design document is to describe the implementation of the software architecture and system design of this project, the Spell Rater.

A tool that can spell check online is can be the suitable solution for optimizing the quality of the text content on the webpages.

Use the data resulting from this tool to improve the quality of the site's content pages. Readers, and the search engines, will appreciate the improvements because this spell check tool is able to support the development of the value of the text content.

Once this online spellchecker tool has completed the scan, it displays a tabular report listing each URL scanned and the number of possible misspellings found on each page. These potential errors can then be review and corrected as needed.

1.2 Scope

A website's bounce rate is a valuable factor that will impact the ranking of that page within the SERPs. Overall, poor content is likely to increase the webpage's bounce rate; which is the act of a website visitor clicking the 'back' button and leaving a website, when they don't receive the information they were looking for.

This free utility crawls the site and shows all the misspellings on hover over.

This tool does not check the following:

- Words that feature a capital letter

The tool is designed to scan text displayed on the page, not text in metadata tags, such as description, or alt tags, nor text in images, Flash or Silverlight content.

Running this tool on numerous pages takes time; the larger the number of pages to be scanned, and the more text per page to scan; the more time it takes to complete the report.

To help better leverage the value of the content the website offers to human readers, in turn how it is viewed by search engines, it is important to ensure that the content is:

- well-written
- clear in its objective
- uses proper grammar
- free of misspellings

To run this online spell check tool for the content on a website, type in or copy/paste the URL of the website's homepage in the provided text box. Select the number of 'Pages to be Crawled', from the ranges provided and input any misspellings to be ignored in the scan, then click 'Spell Rater'.

The number of possible misspellings found on each page are displayed in a tabular report listing each URL scanned after this online spellchecker tool has completed the scan. This helps to review the potential errors and to correct them as needed.

1.3 Overview

The next chapter, the System Overview section, of this document gives a general description of the functionality, context and design of the product and provide any background information.

The third section, System Architecture describes the development of a modular program structure and explain the relationship between the modules to achieve the complete functionality of the system. This section provides a general understanding of how and why the system was decomposed, and how the individual part work together and provides a decomposition of the subsystems in the architectural design.

The forth section Data Design, describes how the major data or system entities are stored, processed and organized. It also provides the idea the objects and its attributes and methods.

The Component Design provides description for the algorithms for each function used in this project.

The Human Interface Design describes how the users can use this application to complete their expected needs. This part also contains the screenshots of the interface of the user's perspective.

The next section includes the functional requirements by the numbers/codes that mentioned in the SRS.

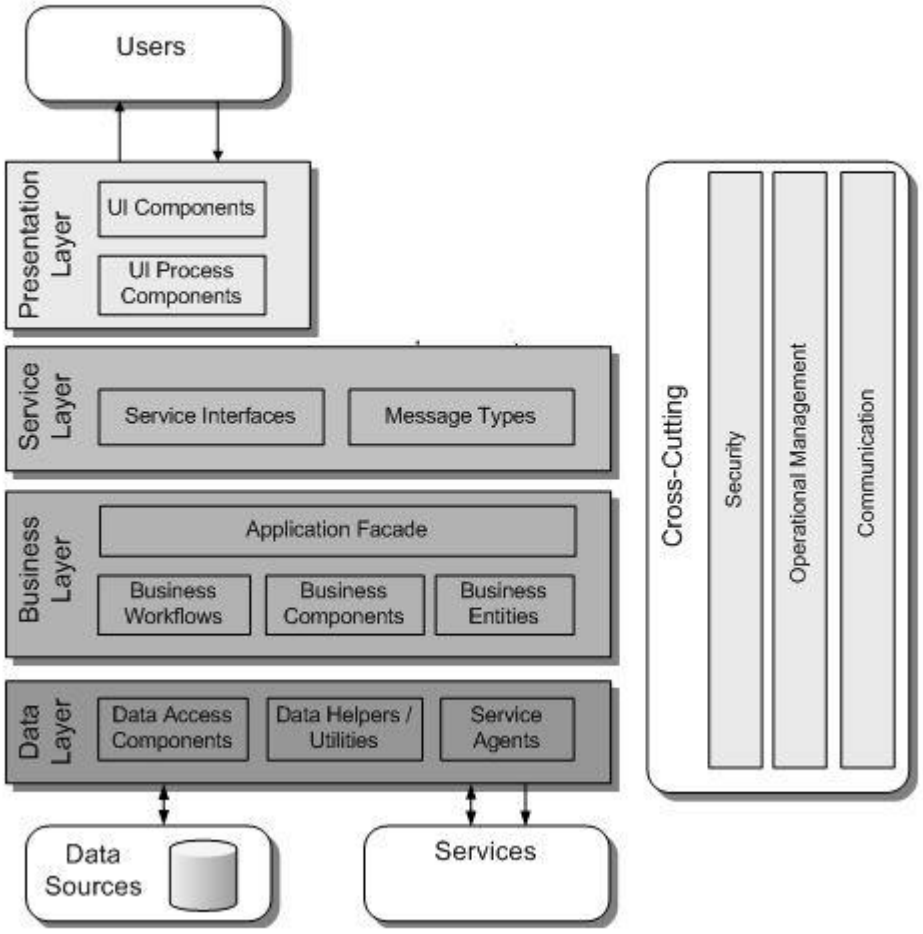
1.4 Definitions and Acronyms

Term	Definition
SERP	**Search Engine Result Page** A search engine results page (SERP) is the page displayed by a search engine in response to a query by a searcher. The main component of the SERP is the listing of results that are returned by the search engine in response to a keyword query, although the page may also contain other results such as advertisements.
URL	**Uniform Resource Locator** commonly informally termed a web address (a term which is not defined identically) is a reference to a web resource that specifies its location on a computer network and a mechanism for retrieving it.

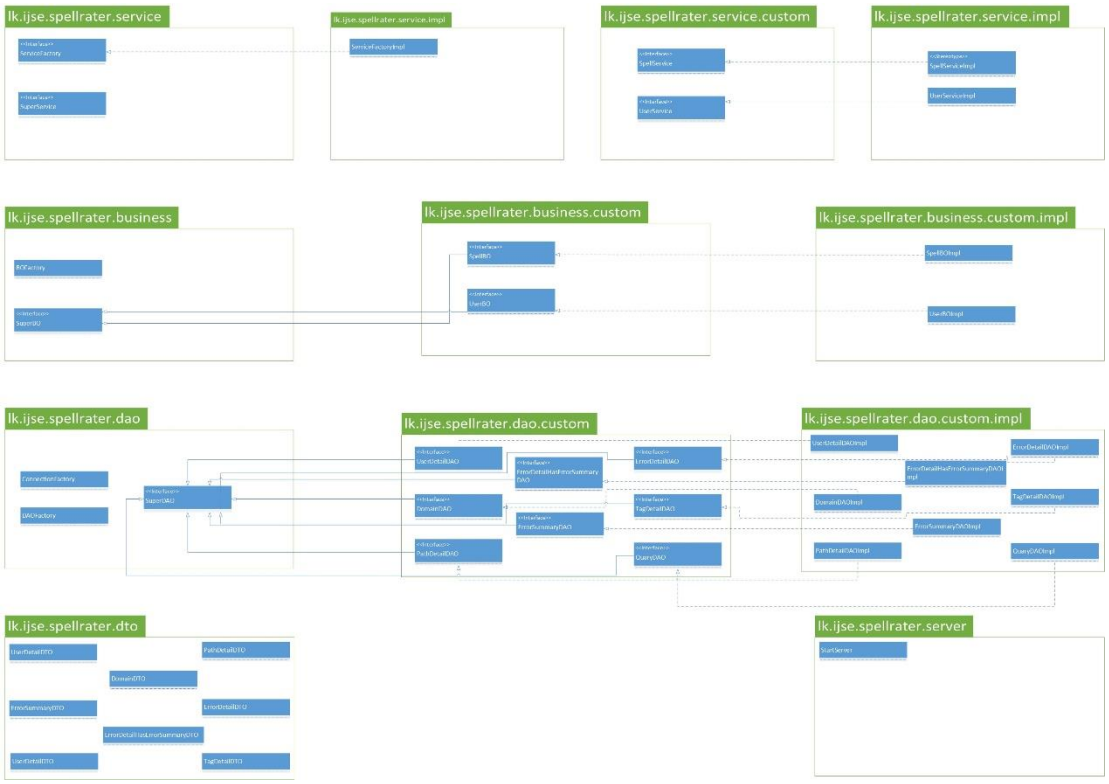
2. SYSTEM ARCHITECTURE

2.1 Architectural Design

The block diagram below shows the principal parts of the system and their interactions.



2.2 Decomposition Description



3. DATA DESIGN

3.1 Data Description

MySQL database and JDBC to communicate with the database that is installed locally on the server.

3.1.1. UserDetail

```
public class UserDetailDTO {
   private int idUserDetail;
   private String firstName;
   private String lastName;
   private String eMailAddress;
   private String UserName;
   private String password;
   public UserDetailDTO() {
   }
   public UserDetailDTO(int idUserDetail, String firstName, String lastName, String eMailAddress, String UserName, String password) {
      this.idUserDetail = idUserDetail;
      this.firstName = firstName;
      this.lastName = lastName;
      this.eMailAddress = eMailAddress;
      this.UserName = UserName;
      this.password = password;
   }
}
```

3.1.2. Domain

```
public class DomainDTO {
   private int idDomain;
   private String domain;
   public DomainDTO() {
   }
   public DomainDTO(int idDomain, String domain) {
      this.idDomain = idDomain;
      this.domain = domain;
   }
}
```

3.1.3. TagDetail

```
public class TagDetailDTO {
   private int idTagDetail;
   private String tagName;
   private String description;
   public TagDetailDTO() {
   }
   public TagDetailDTO(int idTagDetail, String tagName, String description) {
      this.idTagDetail = idTagDetail;
      this.tagName = tagName;
      this.description = description;
   }
}
```

3.1.4. PathDetail

```
public class PathDetailDTO {
   private int idPathDetail;
   private int idDomain;
   private String path;
   public PathDetailDTO() {
   }
   public PathDetailDTO(int idPathDetail, int idDomain, String path) {
      this.idPathDetail = idPathDetail;
      this.idDomain = idDomain;
      this.path = path;
   }
}
```

3.1.5. ErrorSummary

```
public class ErrorSummaryDTO {
   private int idErrorSummary;
   private int idPathDetail;
   private Date dateTime;
   private Blob Image;
   private int wordCount;
   public ErrorSummaryDTO() {
   }
   public ErrorSummaryDTO(int idErrorSummary, int idPathDetail, Date dateTime, Blob
Image, int wordCount) {
```

```
        this.idErrorSummary = idErrorSummary;
        this.idPathDetail = idPathDetail;
        this.dateTime = dateTime;
        this.Image = Image;
        this.wordCount = wordCount;
    }
}
```

3.1.6. ErrorDetail

```
public class ErrorDetailDTO {
    private int idErrorDetail;
    private int idPathDetail;
    private int idTagDetail;
    private String errorName;
    public ErrorDetailDTO() {
    }
    public ErrorDetailDTO(int idErrorDetail, int idPathDetail, int idTagDetail, String
errorName) {
        this.idErrorDetail = idErrorDetail;
        this.idPathDetail = idPathDetail;
        this.idTagDetail = idTagDetail;
        this.errorName = errorName;
    }
}
```

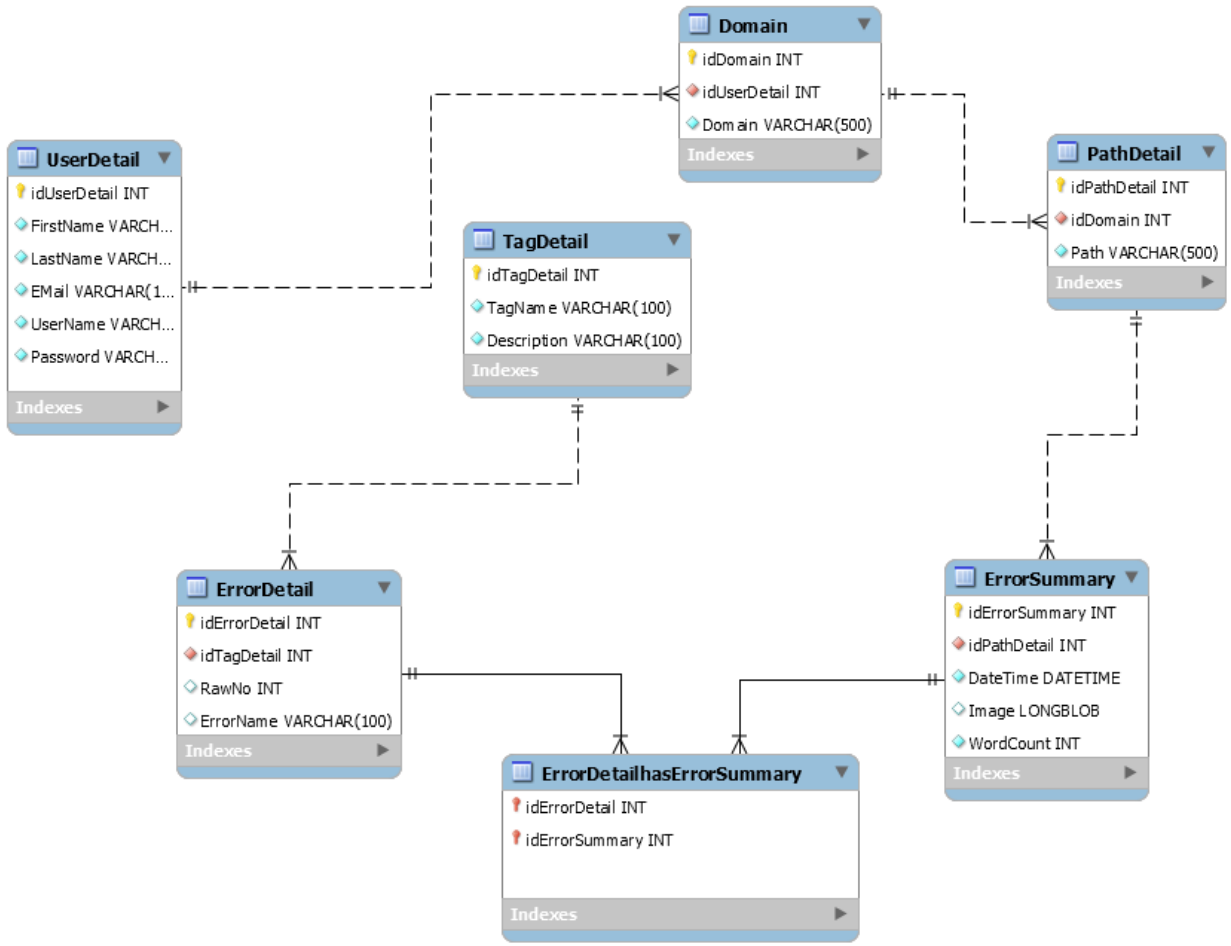
3.1.7. ErrorDetailhasErrorSummary

```
public class ErrorDetailhasErrorSummaryDTO {
    private int idErrorDetail;
    private int idErrorSummary;

    public ErrorDetailhasErrorSummaryDTO() {
    }
    public ErrorDetailhasErrorSummaryDTO(int idErrorDetail, int idErrorSummary) {
        this.idErrorDetail = idErrorDetail;
        this.idErrorSummary = idErrorSummary;
    }

}
```

3.2 ER Diagram



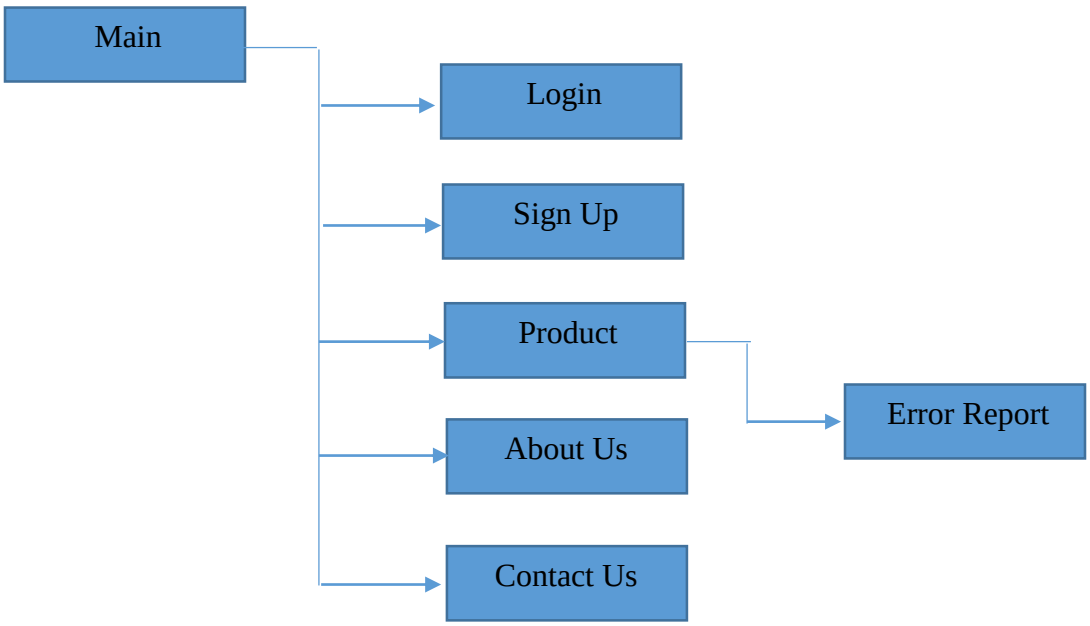
3.3 Data Dictionary

Excel file is attach to the document

4. HUMAN INTERFACE DESIGN

4.1 Overview of User Interface

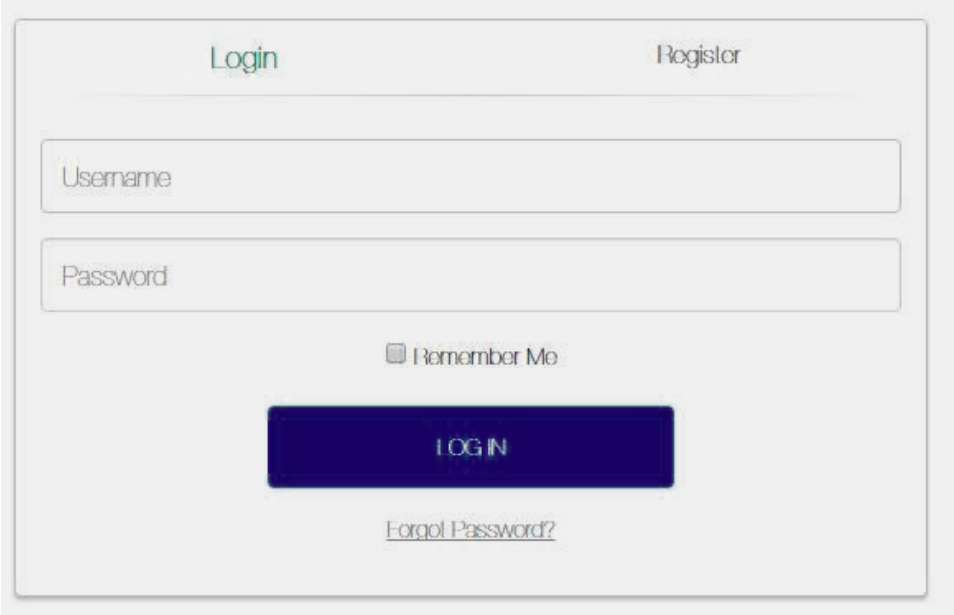
The system's web pages are presented in a tree. First user can reach "Main" page. From "Main" page user can reach following pages: "Sign In", "Product, "About Us", "Contact Us", "Summary", "Error Report" these pages cover necessary functionality of system. It is easy to navigate between these pages. Main page contain one static page with above mention sections. And in the Sign in part there is already having a account and login part and als



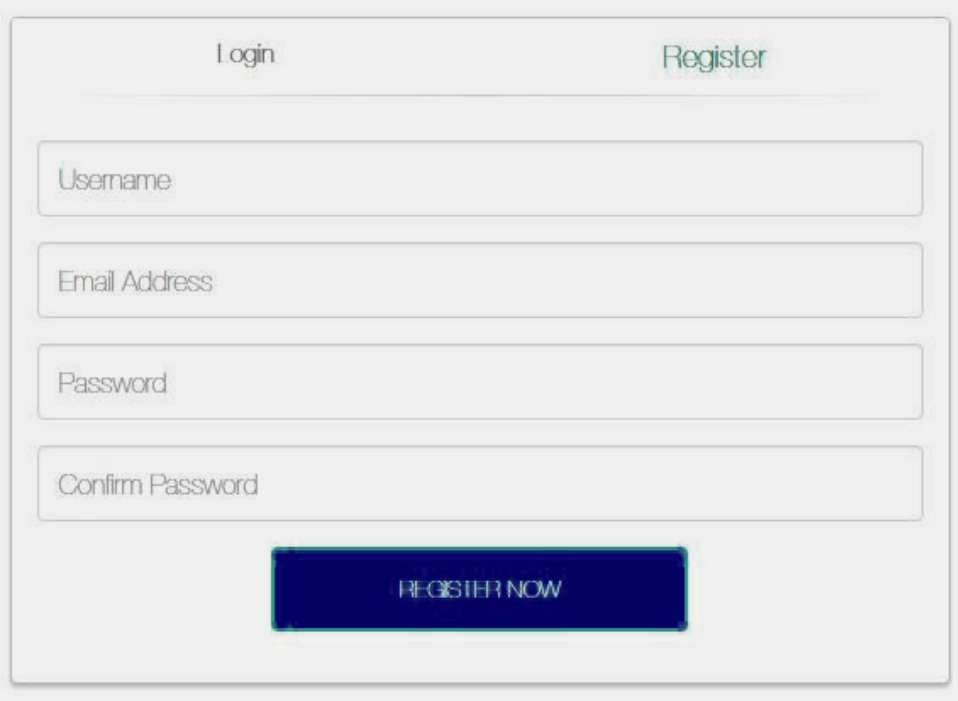
4.2 Screen Images

Some examples of UI are presented below

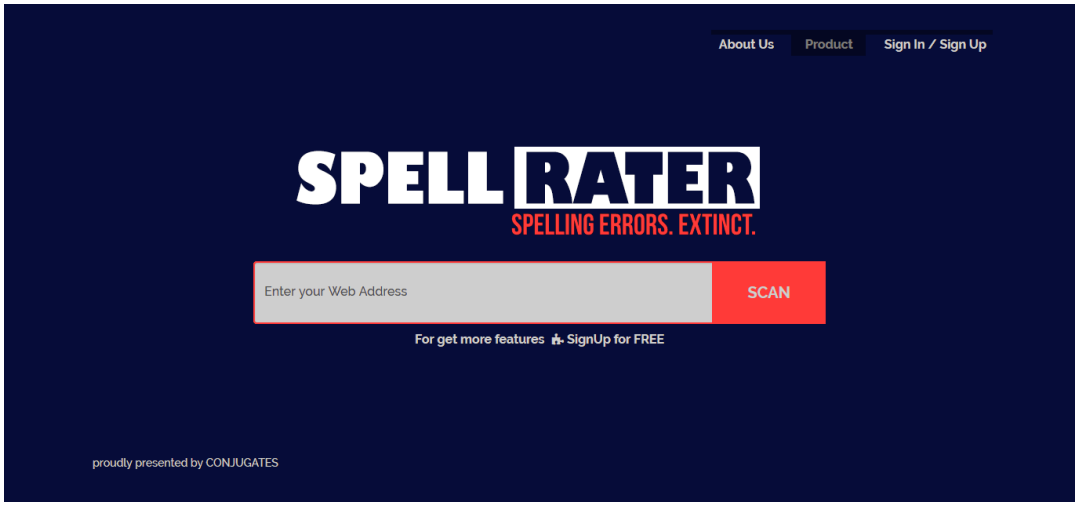
4.2.1. Log In

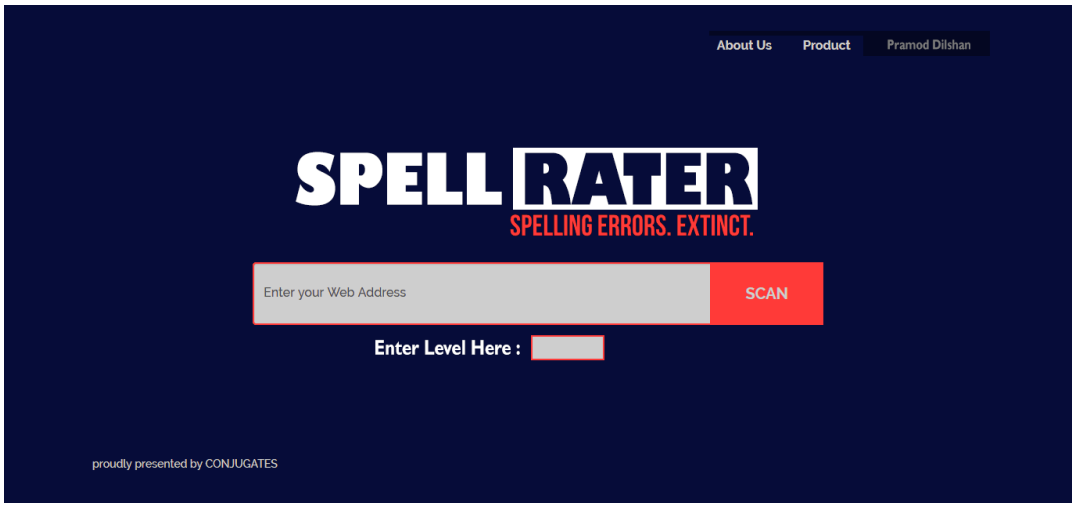


4.2.2. Sign Up

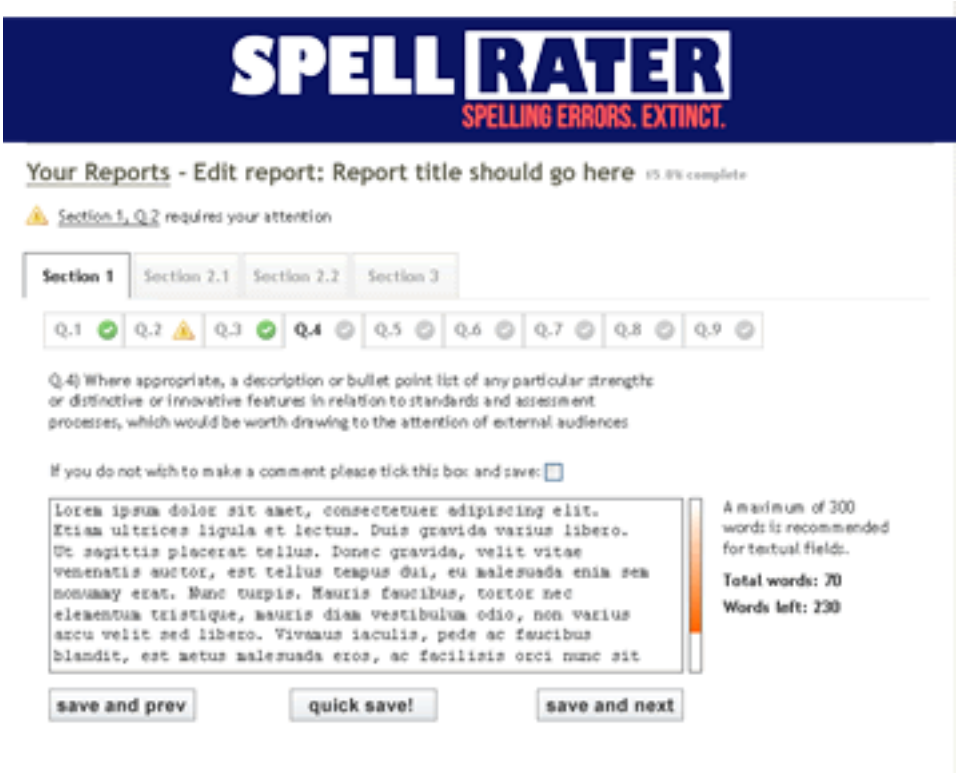


4.2.3. Main


About Us
Product
Sign In / Sign Up
SPELL RATER
SPELLING ERRORS. EXTINCT.
Enter your Web Address
SCAN
For get more features SignUp for FREE
proudly presented by CONJUGATES


About Us
Product
Pramod Dilshan
SPELL RATER
SPELLING ERRORS. EXTINCT.
Enter your Web Address
SCAN
Enter Level Here :
proudly presented by CONJUGATES

4.2.4. Report View



4.3 Screen Objects and Actions

In here we have described the key functions of the interfaces.

4.2.5. Log In

A user that already having an account can log from here. We provide a forget password field when user forget the password with a reset link to sync E mail address.

4.2.6. Sign Up

A user who is not register yet he can register from herewith a unic email address

4.2.7. Main

Here we can past the URL of the target page

4.2.8. Report View

Here is the report of the target page with a screen shot of the page with highlighted text and a list with the tag that have errors. And for registered users they can See that past reports and they can campier the reports.

5. REQUIREMENTS MATRIX

Name	Implemented(+) / Not Implemented(-)	Note
1. Check for spelling	-	
1.1. Direct link search	-	
1.2. Through the link Search	-	
1.2.1. Sign In	-	
1.2.2. Sign Up	-	
1.2.3. Set the level	-	
1.2.4. Review and compare	-	
2. Print result	-	Still note implemented
3. Get PDF	-	
4. Save page	-	
5. Ignored known words	-	
6. Get rating	-	

6. APPENDICES

http://www.cs.concordia.ca/~ormandj/comp354/2003/Project/ieee-SDD.pdf