

Spell Rater

Software Design Document

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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.

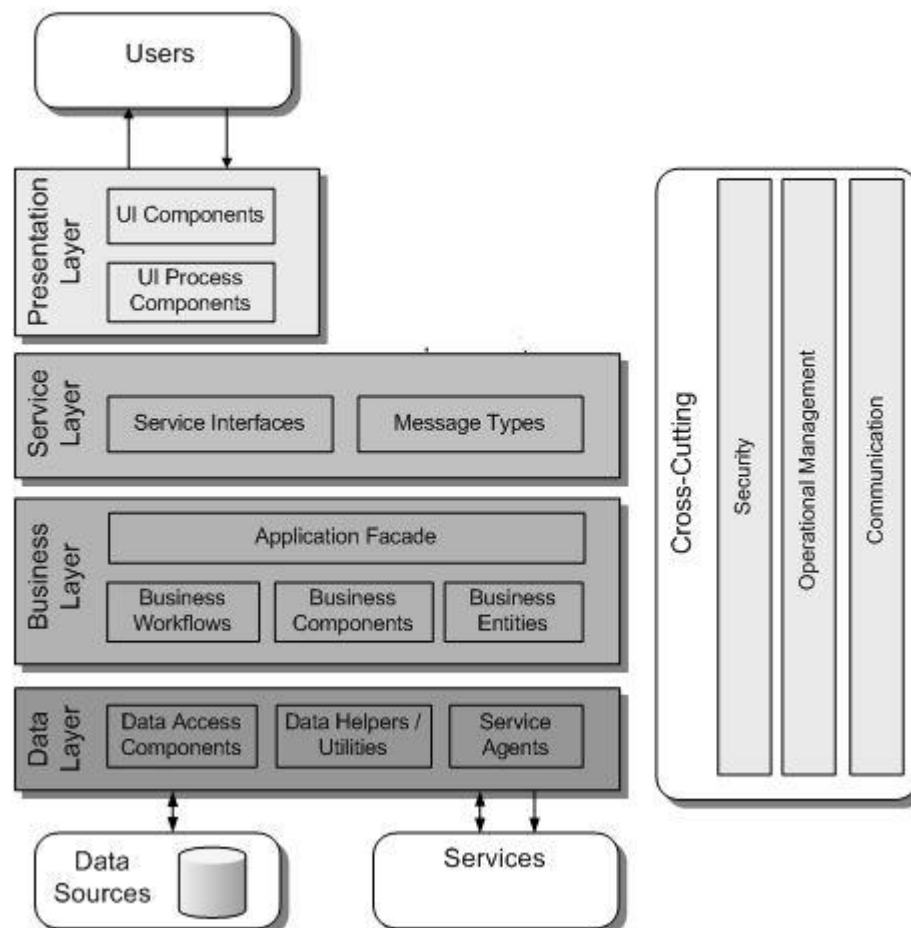
1.4 Definitions and Acronyms

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.

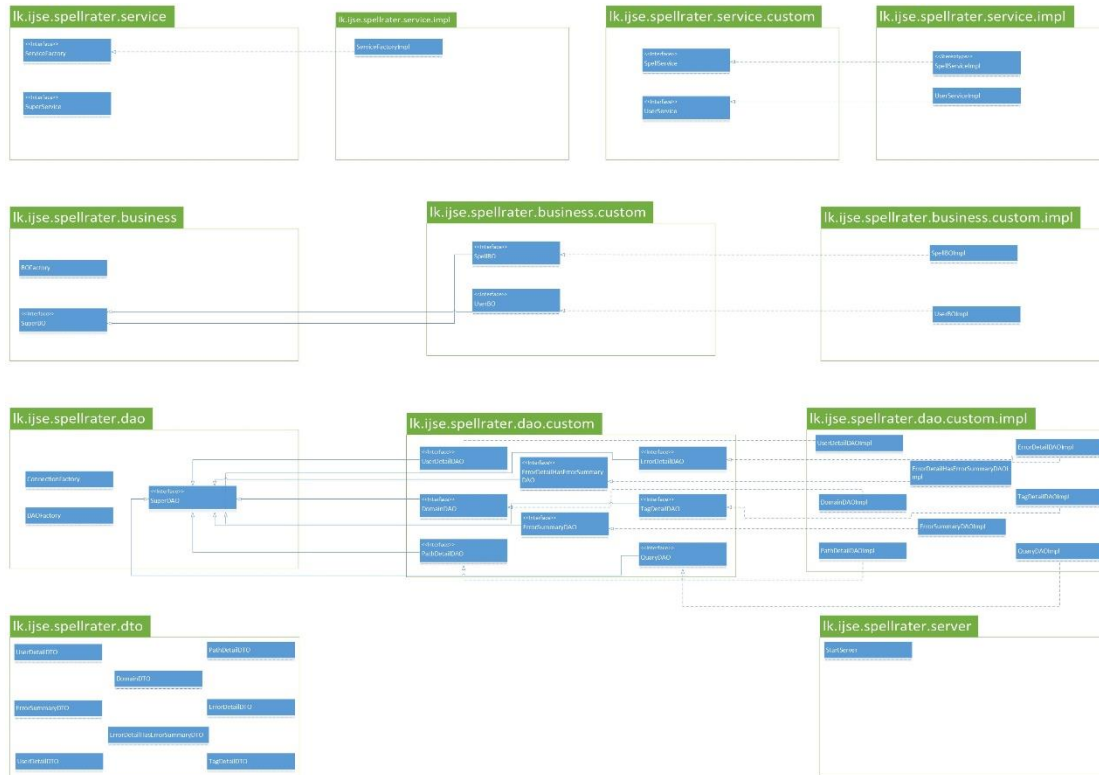
2. SYSTEM ARCHITECTURE

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. UserDetails

```
public class UserDetailsDTO {
    private int idUserDetail;
    private String firstName;
    private String lastName;
    private String emailAddress;
    private String UserName;
    private String password;
    public UserDetailsDTO() {
    }
    public UserDetailsDTO(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

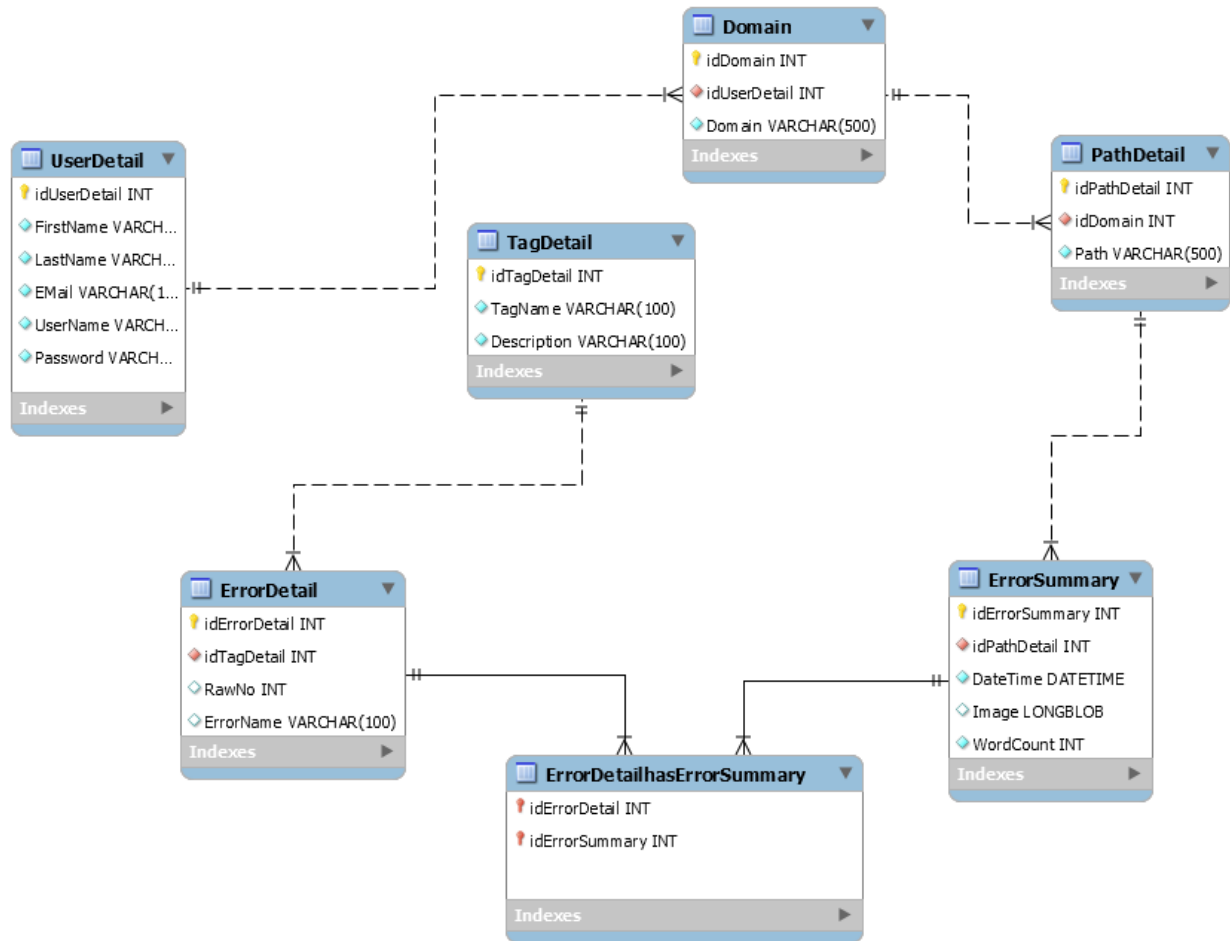
```
public class ErrorDetailDTO {
    private int idErrorDetail;
    private int idPathDetail;
    private int idTagDetail;
    private String errorName;
    public ErrorDetailDTO() {
    }
    public ErrorDetailDTO(int idErrorDetail, int idPathDetail, int idTagDetail, String
errorName) {
        this.idErrorDetail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



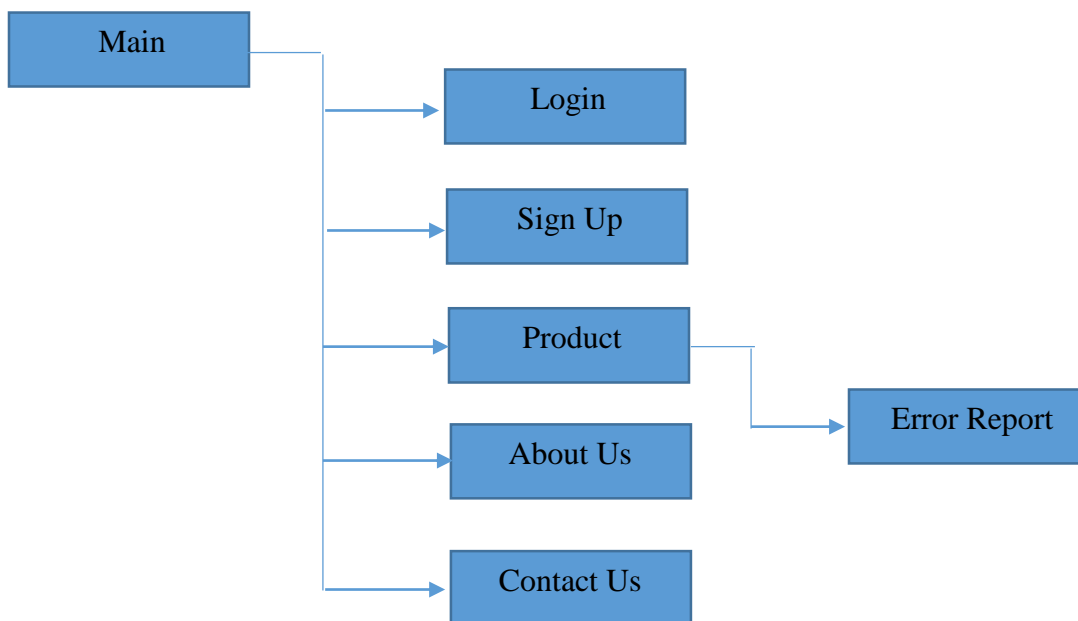
3.3 Data Dictionary

Excel file is attach to the document

4. HUMAN INTERFACE DESIGN

4.1 Overview of User Interface

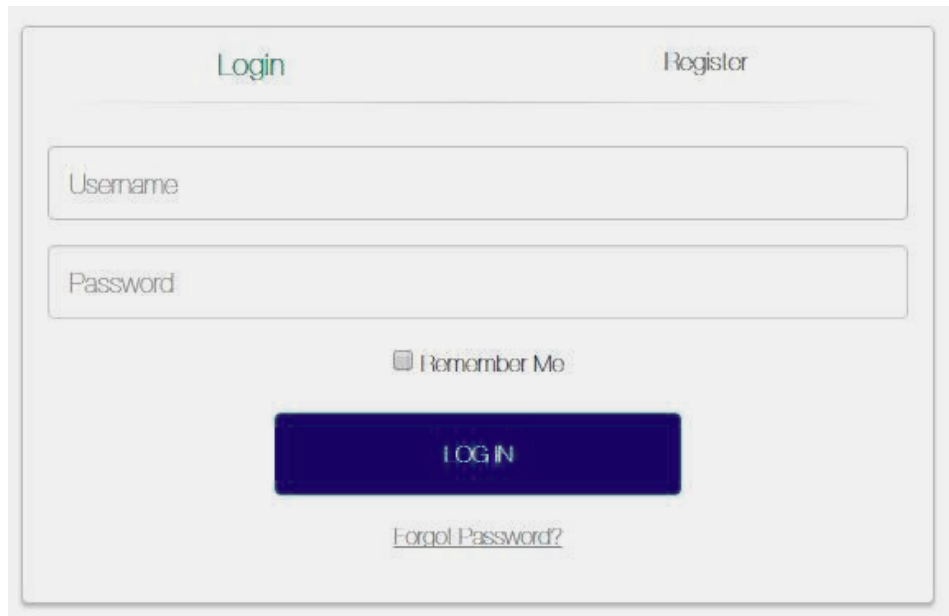
The system's web pages are presented in a tree. First user can reach "Main" page. From "Main" page user can reach following pages: "Sign In", "Product", "About Us", "Contact Us", "Summary", "Error Report" these pages cover necessary functionality of system. It is easy to navigate between these pages. 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

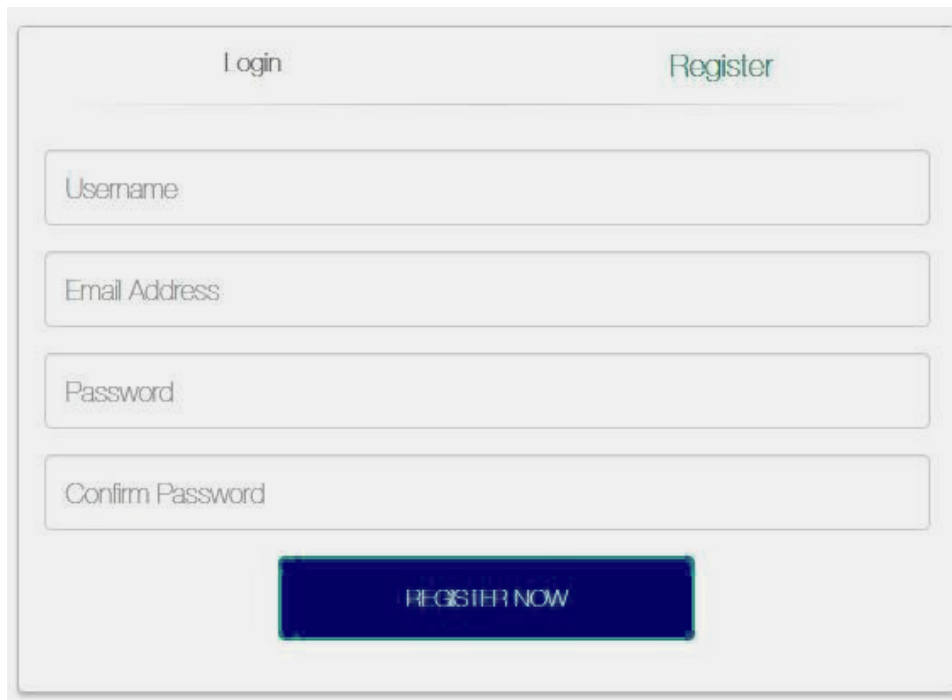
Some examples of UI are presented below

4.2.1. Log In



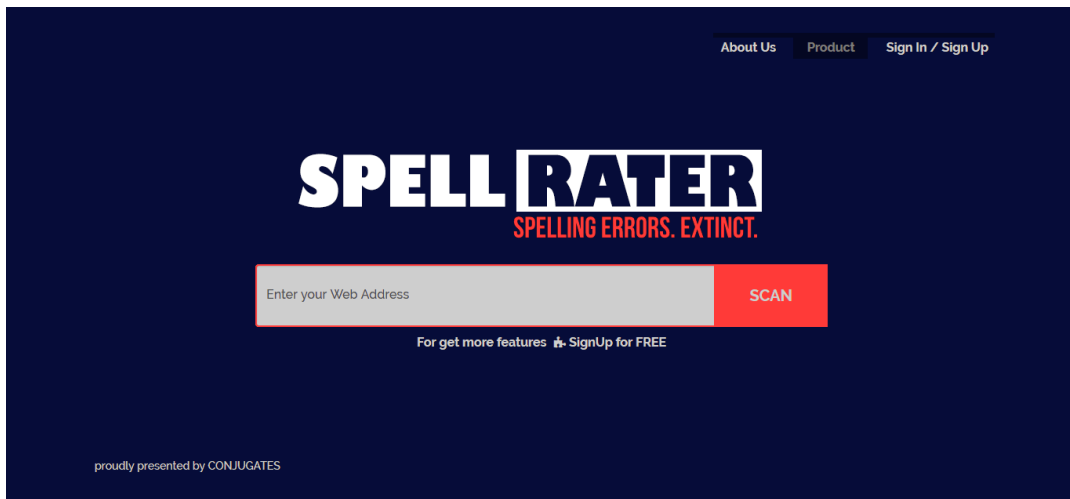
A login form with a light gray background. At the top, there are two links: "Login" in green and "Register" in gray. Below these are two input fields: "Username" and "Password". Under the "Password" field is a checkbox labeled "Remember Me". A large blue button with the text "LOG IN" in white is centered below the checkbox. At the bottom, there is a link "Forgot Password?" in gray.

4.2.2. Sign Up

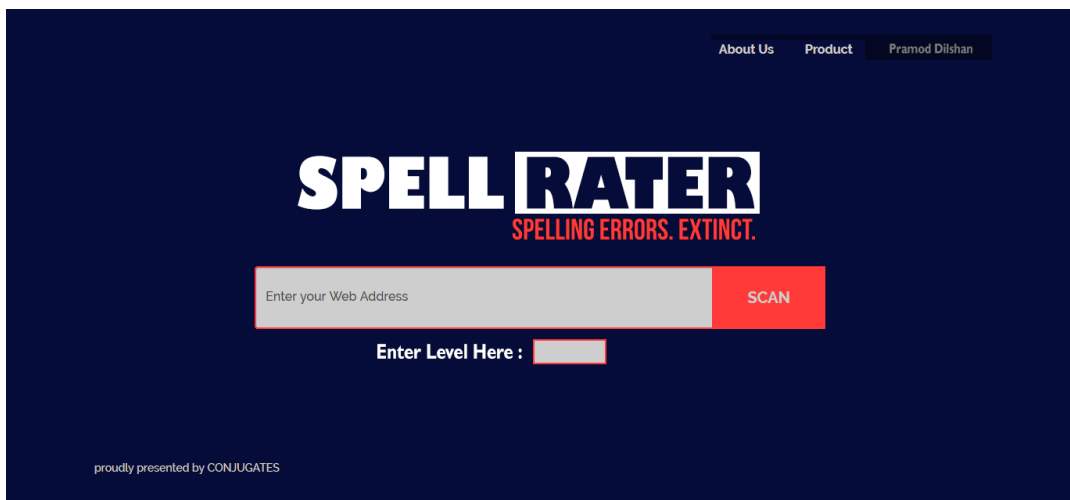


A sign up form with a light gray background. At the top, there are two links: "Login" in gray and "Register" in green. Below these are four input fields: "Username", "Email Address", "Password", and "Confirm Password". A large blue button with the text "REGISTER NOW" in white is centered below the input fields.

4.2.3. Main



This screenshot shows the main interface of the Spell Rater application. The background is dark blue. At the top right, there are three links: "About Us", "Product", and "Sign In / Sign Up". In the center, the logo "SPELL RATER" is displayed in large, bold, white and blue letters, with the tagline "SPELLING ERRORS. EXTINGUISHED." in red below it. Below the logo is a light gray input field with the placeholder text "Enter your Web Address". To the right of this field is a red button labeled "SCAN". Below the input field, there is a link that says "For get more features" followed by a star icon and "SignUp for FREE". At the bottom left, it says "proudly presented by CONJUGATES".




This screenshot shows the main interface of the Spell Rater application, similar to the previous one but with an additional input field. The layout is the same, including the logo, tagline, and "SCAN" button. However, below the "SCAN" button, there is a new input field labeled "Enter Level Here :". The background, links, and other elements remain the same as in the previous screenshot.

4.2.4. Report View

SPELL RATER
SPELLING ERRORS. EXTINGUISHED.

Your Reports - Edit report: Report title should go here 15.8% complete

 Section 1, Q.2 requires your attention

Section 1

Section 2.1

Section 2.2

Section 3

Q.1

Q.2

Q.3

Q.4

Q.5

Q.6

Q.7

Q.8

Q.9

Q.4) Where appropriate, a description or bullet point list of any particular strengths or distinctive or innovative features in relation to standards and assessment processes, which would be worth drawing to the attention of external audiences

If you do not wish to make a comment please tick this box and save: ☐

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Etiam ultrices ligula et lectus. Duis gravida varius libero. Ut sagittis placerat tellus. Donec gravida, velit vitae venenatis auctor, est tellus tempus dui, eu malesuada enim sem nonummy erat. Nunc turpis. Mauris faucibus, tortor nec elementum tristique, mauris diam vestibulum odio, non varius arcu velit sed libero. Vivamus iaculis, pede ac faucibus blandit, est metus malesuada eros, ac facilisis orci nunc sit

A maximum of 300 words is recommended for textual fields.

Total words: 70
Words left: 230

save and prev

quick save!

save and next

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 3. Get PDF 4. Save page 5. Ignored known words 6. Get rating	- - - - - - - - - -	Still note implemented

6. APPENDICES

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