Software Requirements Specification

for

Online Article & Discussion Platform for CSE Students

CSE Hankers

Version 1.0

Prepared by Jwalit Shah

Dharmsinh Desai University, Nadiad

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Dharmsinh Desai University,

Faculty of Technology,

Department of Computer Engineering,

Nadiad

Object Oriented Software Engineering Project

"ONLINE ARTICLE & DISCUSSION FORUM FOR CSE STUDENTS"

MR. Jwalit Chiragbhai Shah

(Roll No. CE121, Student ID: 18CEUOS057)

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In guidance of Prof. Mrudang Mehta

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1. <u>Introduction</u>

1.1 Purpose

The purpose of the Software Requirements Specification is to outline the requirements for the "Online Article & Discussion Platform for CSE Students". This product will be built on Dotnet core and SQLite server using provided tech-stacks. It will be operating system independent and accessible with any standard compliant browser having python installed on that local machine.

1.2 Document Conventions

Functional requirements are defined as a user-oriented. And in the given user's requirements Priorities for higher-level requirements are assumed to be inherited by detailed requirements.

1.3 Intended Audience and Reading Suggestions

This Document is intended for, such as developers, project managers, marketing staff, users, testers, and documentation writers. Starting the document with the purpose, conventions, scope, overall description, user-oriented user functional requirements and at the end there is nonfunctional requirements.

1.4 Product Scope

"Nerds Of CSE" is intended for Computer Science related community which helps them to find the certain related topics via Blogs/Articles written by other person and also, they can have a Questionnaires & give answers on the platform which makes platform kind a Forum for discussion and helps them to find their way.

1.5 References

SRS is being referenced from these given references.

https://medium.com/@enisinanaj/writing-a-software-requirements-specification-document-97d622805aef

https://my.eng.utah.edu/~blatnick/cs4500/SRS.pdf

2. *Overall Description*

2.1 Product Perspective

This product is based on the online Discussion and Blog forum like Geeks-For-Geeks and Quora.com Hence it is follow-on member of a product family of Discussion & Blog platform.

2.2 Product Functions

Major Functionalities:

- Login, Register, Logout and Forgot Password
- Add, Update, Delete, View Posts/ Articles
- Follow user
- Add/ Update/ Delete/ View Questionnaires
- Give Answer to the Questions
- Like and Comment Posts/ Articles/ Answers

Level-0 Data Flow Diagram:
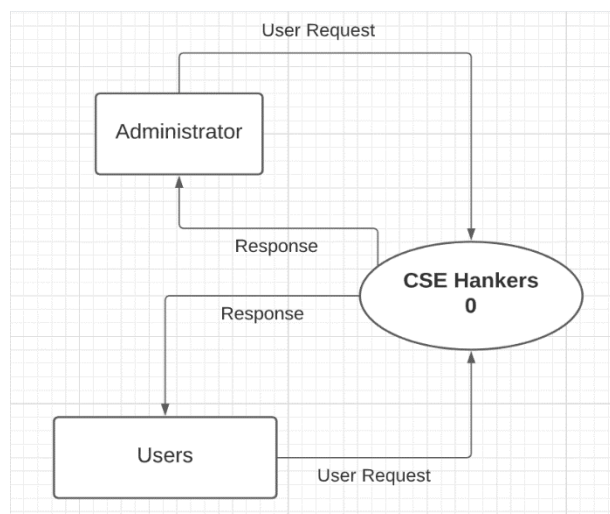
2.3 User Classes and Characteristics

Users:
-name
-email
-password
-date of birth
-college
-branch
-mobile
-state
-country

Articles:
-title
-description
-author
-likes
-comments

Question:
-question description
-author

Answer:
-answer description
-author
-likes

2.4 Operating Environment

Software will be operated in Dotnet core, It needs the IIS server to execute it. It is operating system independent: Cross platform

2.5 Design and Implementation Constraints

Web Application is specific to Microsoft technologies, like dotnet core, c#, SQL Server database and many more packages; programmer needs to know to dotnet core framework and have the knowledge about C#; for security HTTP/ HTTPS protocols are used; Administrator will be responsible for maintaining the delivered software.

2.6 User Documentation

No User Documentation specified

2.7 Assumptions and Dependencies

-   User needs to be authorized user for doing privileged task
-   User can't comment or like which are owned by them only

3. <u>External Interface Requirements</u>

3.1 User Interfaces

User Interface (UI) screenshots

3.2 Hardware Interfaces

None

3.3 Software Interfaces

Web Application is specific to Microsoft technologies, which is dotnet core. SQL Server of Microsoft technology is for the database here. Identify the data items or messages coming into the system and going out and describe the purpose of each. We define/implement each of the needed service as the Repository pattern. No external hardware support is needed. Data across the components will be shared through the model binding in dotnet core over the HTTP.

3.4 Communications Interfaces

We can define the email aspects within Microsoft technologies tool, including e-mail, web browser, network server communications protocols, electronic forms, and so on. Define any pertinent message formatting. The communication standards that will be used is HTTP. Communication is not much secure as it in on HTTP server. To solve the same HTTPS protocol is used.

4. <u>System Features</u>

User wise defined Functional Requirements

4.1 Administrator

RQ- 4.1.1   Login

Description: Login to the Administrator dashboard
Input: User credentials
Output: Appropriate status message and Redirection

RQ- 4.1.2   Accept / Discard the Report Content request

Description: Administrator can Discard the Reported Content request
or can delete the content by accepting the request.
Input: Article details
Output: Response message

RQ- 4.1.3   View Contents of platform

Description: All of the contents (etc. Questions, Articles, Answers) can
be viewed according to the user selection criteria
Input: User selection
Output: Details of Articles

RQ- 4.1.4   Statistical data

Description: Some statistical data can be viewed of the platform
Input: User selection
Output: Statistical Details

RQ- 4.1.5   Logout

Description: Logout from the currently logged in session
Input: User selection
Output: Success message and Redirection to login page

RQ- 4.1.6   Forgot Password

Description: Reset the password if the password is been forgotten
through real-time email link.
Input: User Selection
Output: Redirection to Login page after resetting password.

4.2 End Users

RQ- 4.2.1   Register

Description: Register the self to the platform.
Input: User details and credentials
Output: Appropriate status message and Redirection

RQ- 4.2.2   Login

Description: Login to the Administrator dashboard
Input: User credentials
Output: Appropriate status message and Redirection

RQ- 4.2.3   Follow users

Description: Any user can follow the other user
Input: User selection
Output: Success message

RQ- 4.2.4   Publish Articles

Description: User can publish the articles to all other users
Input: Article details
Output: Response message

RQ- 4.2.5   View Articles

Description: Articles can be viewed according to the user selection
criteria
Input: User selection
Output: Details of Articles

RQ- 4.2.6   Update/Delete Articles

Description: User can Update and Delete the articles
Input: Article details & User selection
Output: Response message

RQ- 4.2.7   Comment on the Articles

Description: User can give comments on the articles
Input: User selection & comment description
Output: Response message

RQ- 4.2.8   Ask Questionnaires

Description: User can put questions on the platform.
Input: Question description
Output: Success message

RQ- 4.2.9   Modify and Delete asked Questions

Description: User can modify and delete the asked questions on the platform asked by the user itself.
Input: User selection and Question's description
Output: Success message

RQ- 4.2.10   Like Articles/ Answers

Description: User can give like to their favorite articles/ answers to the question
Input: User selection
Output: Success notification

RQ- 4.2.11   Report for Contents

Description: Users can request the Administrator to perform certain actions on selected Content request like (selected content can be Article, answer or question).
Input: Article details
Output: Response message

RQ- 4.2.12   Logout

Description: Logout from the currently logged in session
Input: User selection
Output: Success message and Redirection to login page

RQ- 4.2.13   Forgot Password

Description: User can reset password by token validation which is sent to
registered username.
Input: User Selection
Output: Redirection to Login page after resetting password.

5. <u>Other Nonfunctional Requirements</u>

5.1 Performance or Scalability Requirements

We also included scalability in this section, since it considers the maximum load that the system doesn't necessarily process now, but may process in the near future. Safety Requirements.

5.2 Security Requirements

This product shall have several types of access permissions. The Users shall have restricted to access the other user's profile and the resources owned by the other user is not accessible to another one user.

5.3 Software Quality Attributes

- Reliability: the platform shall be available in 99.99% of the time. Product will available for at least 1 year in Canada.
- Maintainability: the system shall provide the capability to backup the database. It is easy to keep and maintain the software.

5.4 Business Rules

- Commenting on an Article requires authentication.
- For giving like to any content, requires authentication.
- Login user can't logout whenever u are not logged in.

Thank You   Author: Jwalit C Shah, 6th Sem CE121