libreQA: SRS Document

Release 0.1

Shiv Shankar Dayal & Pavan Sharma

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INTRODUCTION

This SRS document describes the requirement specification for libreQA, which is a free (free as in freedom not free beer), open source (just another popular name for free software) Q&A platform.

1.1 Background

It all started with http://stackoverflow.com/ where a programming website revolutionized the way forums were used for discussion. After this stackexchange was started and plethora of websites came up on that platform. After stackexchange http://www.quora.com/ is second most popular website for question and answer. At present there is OSQA using Python/Django stack at http://osqa.net/ , shapado using Ruby on Rails stack with MongoDB at http://shapado.com/ , Question2Answer using PHP/MySQL at http://www.question2answer.org/

However, the motivation for development of libreQA is that we need to develop something better. We have used OSQA and LampCMS to deploy our own websites. But we hit some or the other blockages like bad DB choice, insufficient editing support which includes poor Mathematics and Chemistry support. Poor synatx highlighting and rich text editing support. Also, all of these platforms are made using interpreted languages which incur a heavy penalty on system resources.

1.2 Solution

Because of our limited resources on server side we decided to develop our own framework using C++ with a framework known as CppCMS, which you can find at http://cppcms.com/ . For the database we use MongoDB as it is highly scalable and written in C++ which makes it very fast along with other advantages of NoSQL. For editor we will use TinyMCE along with Syntax-Highlighter plugin. We enable Mathematics using a MathJAX plugin for TinyMCE and http://web.chemdoodle.com/ web API will be used for chemistry.

REQUIREMENT SPECIFICATION

Following are the requirement specification of libreQA. These are organized in different functional sections.

2.1 Login

Following requirements are mandatory:

1. User must be able to login with Google or Facebook.

2. User must be able to create a login with a password.

3. Password should be strong. This check must be performed for at least 8 character, 3 character class password. A captcha test is needed to prevent bot registration.

4. User needs to give a working email at registration time. This email-id must get a validdation email.

5. Upon validation the account must be activated else the user is not allowed to use the website.

6. In case user forgets his password a link must be provided to reset his password by providing a password reset link by email to his email-id.

7. On clicking Logout button user must be logged out.

2.2 Q&A

It is assumed that users are logged in while modifying content. Following requirements are mandatory:

1. User should be able to ask a question. Title must be 10 charcaters long or as configfured.

2. Question should be at least 3 words or as configured.

3. At least one tag should be used. It may exist or created if it does not.

4. TinMCE should be used with https://github.com/RichGuk/syntaxhl , https://github.com/efloti/plugin-mathjax-pour-tinymce and optionally http://web.chemdoodle.com/ should be integrated.

5. At least 10 words or as configured for answers.

6. Maximum 1000 words for questions and answers or as confiured.

7. Maximum 600 words for comments. This will be plain text.

8. Questions and answers can be voted up and down.

9. Questions can be marked favorite.

10. Answers can be accepted. Only the OP should be able to accept the answer.

11. Reputation gain is entirely configurable and is covered separately.

12. Questions, answers and comments can be edited and deleted.

13. Upon deletion they will not be shown and marked for deletion.

14. Questions can be closed by admins.

15. Questions can be made sticky and un-sticky.

16. Questions can be retagged.

17. Questions can be reported to admins as inappropriate.

18. Similar questions should be shown on question page. Following requirements are mandatory:

    1. User should be able to ask a question. Title must be 10 charcaters long or as configfured.

    2. Question should be at least 3 words or as configured.

    3. At least one tag should be used. It may exist or created if it does not.

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    17. Questions can be reported to admins as inappropriate.

    18. Similar questions should be shown on question page.

    19. It will be a replica of http://android.stackexchange.com

2.3 Administrative Panel

1. The dashboard will have a summary containing quick statistics which will have count of total questions/answers/users and for last 24 hours.

2. Site will have a bootstrap mode where reputation constraints are relaxed.

3. All the recent activity will be shown with 10/configurable items per page.

4. Admin menu will be a replica of OSQA.

2.4 General Interface

1. It will be a replica of http://android.stackexchange.com

2.5 Badges

1. Combination of OSQA, stackexchange, shapado, quora and everything else.

2.6 Search

1. We will not provide any search facility. Google search has to be configured.

INDICES AND TABLES

- *genindex*