GSoC 2009 Student Application
Enhancing Drupal Quiz Module

1. Abstract

I would like to introduce some new features and tweaks to an already existing drupal quiz module (http://drupal.org/project/quiz). These features would make it more robust, feature rich and user friendly. This project aims at improving the usability of Drupal in e-Learning domain.

2. content

2.1 overview

The overall idea of this project is to turn an existing quiz module into an academically oriented quiz engine for use in Drupal based e-Learning websites.

The existing Quiz modules is still fairly basic. Before it can really be considered a competitive tool for administering academic quizzes, it needs a robust and polished set of features. That's what my GSoC project is about. Taking a **GOOD** but basic project and making it into a **GREAT** project.

2.2 description

The ideas and tweaks that i have planned to introduce are listed below (and they are based on Drupal 6.x):

2.2.1 Proposed idea

1. Quiz Result notification via Email

An email containing information on quiz results, like number of questions attended, number of questions correct, number of questions wrong, percentage of mark scored, time taken, pass/fail, grade etc, will be sent either immediately after the completion of quiz or based on the decision of the host(here host refers to user with role teacher or admin who is organizing the quiz) .

2. CSV, TSV questions Upload

An interface that allows the user playing the role of the host (e.g. teacher or admin) to upload a bulk of questions in CSV or TSV format. Each question is organized as a node. This feature could be achieved by borrowing the functions of a Drupal module named node_import (http://drupal.org/project/node_import).

Note: node_import is still under development in Drupal 6.X. Completing this project may also require me to contribute code to that project as well.

3. Results Dashboard for students

This is an interface where students can track, analyze their own performance over a time period (weekly or monthly). This will provide information like number of test attended, number of test passed, failed, progress comments based on current and past performance.

4. Results Dashboard for teachers

This will provide an interface for the host (e.g. Teacher) to compare, analyse and track the performance of a group of users (students).

#3 and #4 will make use of a Drupal chart like module and icons to visually represent the above mentioned information.

There are many reasons to choose Google Charts API over other methods ,like :
• Cost free .
• Lightweight, reliable, no neccessity for server side libraries or additional modules.
• Simple to extend and implement within the Drupal framework.
• Memory friendly.

5. Exporting quiz results to PDF, XML, CVS

Students/Teachers who wish to have a copy of quiz result in digital format can use this feature. They can export their results in a PDF, XML, CVS format.

As of now there is no way to keep archives of quiz results outside of Drupal which is sometimes required for universities that offer online quizzes. Also some teachers may want to export quiz results from Drupal and import the results into a gradebook.

6. Ajaxifying quiz

The current quiz modules reload the entire page for each question. i.e The user request has to under go bootstrap process, a sequence of actions to fetch and render each question. This is an unnecessary overhead to server and could be avoided using jQuery/AJAX. In which consecutive questions will be loaded below the current question without reloading the entire page. It also gives an opportunity to view all the questions/answers on a single page and verify them before making final submission

Ajax pager for "add multi-choice question" page , where already available multi-choice questions were being displayed.

Dependencies

* node_import module

* Drupal chart module

* Gradebook

Also i would like to implement the todo, feature requests, issue queue ideas for quiz module given in these links

* http://drupal.org/node/199575
* http://groups.drupal.org/node/7412
* http://groups.drupal.org/node/16549
* http://drupal.org/project/issues/quiz?status=All

Roadmap

1. The current development version quiz 3.x-dev has been planned to release at end of April mean while I would like to explore the following stuffs

• Drupal Coding Standard

- Mailing List/ Forum communication guidelines

- Druapl Issue Tracking System

- Version control system (creating and applying patches)

2. May 01/05/09 to 15/05/09

- Exploring Quiz module version 3.x

- Exploring reported bugs/ feature request

- Applying, testing and reviewing patches (http://webchick.net/6-pass-patch-reviews)

3. May 17/05/09 to 10/07/09

I will pick any four task from the above mentioned list based project progress and mentors suggestion and start working on it. I will be able to complete it before the midterm review i.e July 13. Every feature release will have these phases

- proposing my idea

- getting suggestions from mentor/community

- implementing the feature

- documentation

- review from mentor/community.

4. 14/07/09 to 22/07/09

I will complete the remaining tasks during this time and make it available for final evaluation, will spend rest of the time on patch reviewing, bug fixing, answering to issues.

Why "Druapl" ?

- I really love the way community interacts and develops Drupal project.

- Drupal has a rich set of tools issue tracking system, mailing list (users, developers), forum, drupal groups, planet, documentation, IRC channels etc which encourages newbies to expose their ideas, interact with developers and put them into action.

- Drupal core design, modules, APIs, hooks concepts which ease the developers to make it still powerful.

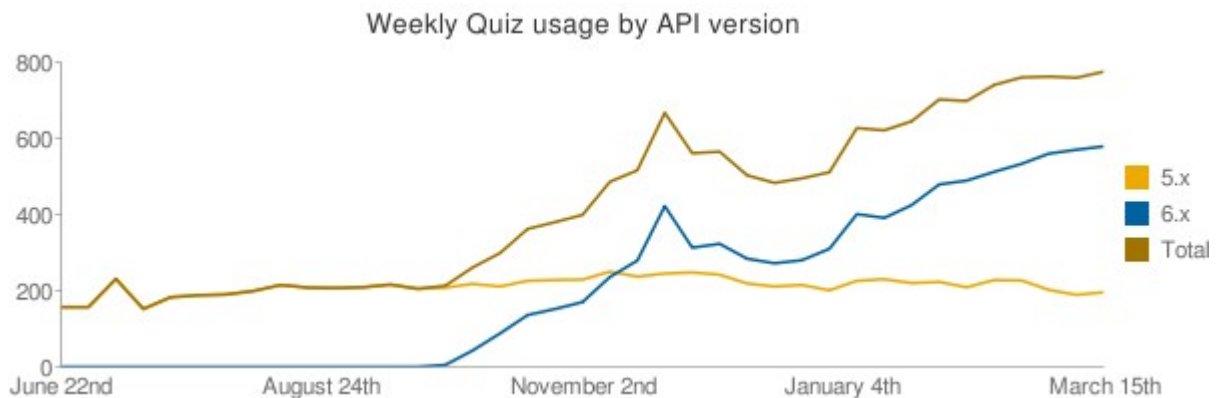I am sure working on Druapl project will serve the purpose of GSoC.

Why "Me" ?

- I have been in Drupal community for last six month.

- Recently committed myself to quiz module(http://drupal.org/project/quiz) and planet module

(http://drupal.org/project/planet)

- Volunteering to organize Drupal Meet in Local places (http://groups.drupal.org/chennai-drupal-community)
- Looking for a chance to get my foot wet into Druapl core patch review.
- I help peoples in support mailing list (support@drupal.org).

Profit for Drupal

User base for Quiz module has been increased rapidly in the recent past. This project is more likely to improve the usability of Drupal.

Weekly Quiz usage by API version

- It also transforms the existing quiz module into an academic oriented quiz engine.
- This project transforms the existing quiz module into a robust, feature rich and user friendly module.
- This project will improve quiz module's ability to interact.
- It makes it more human-friendly by improving the user interface and exposing data in human-friendly ways like graphs and icons.
- It also makes Quiz more machine-friendly by exposing data as CSV, TSV and XML.

I would also like to implement the above ideas in Drupal 7.x (in future) and wish to be a long term contributor to Drupal community . mbutcher and other community members seem to be very interested in quiz module. I am happy to work with them. Hope we have a lot of fun this summer with Drupal :D.

Mentors : mbutcher http://drupal.org/user/201798

Difficulty : Medium

Biography

I am a twenty one year old Engineering student from the Chennai city of Tamilnadu ,which is located in Southern India. Currently, I am pursuing my Bachelors degree in Computer Science and Engineering in Jaya Engineering College affiliated to Anna university. I have been into web application development based on Drupal for last six months and is quite comfortable with its

feature and community support. Now I am looking for a chance to contribute something to the Drupal community. My work and area of interest revolves around Ubuntu, PHP, Drupal, Ajax, jQuery, Joomla.

More about me

http://www.ubuntuslave.blogspot.com/
http://sivaji.ubuntu-tam.org/blog/
http://groups.drupal.org/user/26081
http://drupal.org/user/328724

Please post your suggestions (to below mentioned link) to make it still better.

http://groups.drupal.org/node/19141