

Graduate Assistant Developer Project Spring 2013

Instructions:

- There are two parts to your project Part A and Part B. Part B would be onsite at the Graduate School Office. You would be notified about this later
- You can choose to use any Web Development Framework and Database system. You can make assumptions if the requirements are not clear. Please specify the framework, database and the assumptions made in your submission email.
- Email the source code and scripts as tarball [LastName_FirstName_Dev_tar.gz] as an attachment with the subject “Graduate Student Position Dev 2013” to stuserve@usc.edu before the deadline of Sunday, February 10, 2013 at 6:00 p.m. PST.

Part A

The Faculty Committee wants to develop an online application which will allow the students to apply for a scholarship. You are the developer and the requirements are given below.

Application Form

The form specification is as follows:

1. The form should contain the fields: FirstName, LastName, email address, USC ID, Major, upload resume button and name and email fields for two recommenders. All the fields are required fields.
2. Major should be a drop down list and it should include Computer Science, Electrical Engineering, Mechanical Engineering and Aerospace Engineering.
3. There should be proper validations for these fields. A few examples:
 - a. Wrong email address format
 - b. Invalid USC ID (max 10 digits)
4. The resume should be in either pdf or Word document format with a maximum size of 500KB. You should not allow the user to upload any other kind of file. (It should throw an error if someone has changed extension of .exe file to .pdf and tried to upload. :-) etc). Display appropriate error messages.
5. Two buttons : Submit and Clear. Submit will submit the form and clear will clear all the fields in the form.

Once the student submits the application form, he/she would be redirected to a confirmation page which would indicate whether he or she was successfully able to submit the form or not.

Emails

On successful submission, three emails would be fired: one for the student which would include a tracking number of the application. The student can use this to verify the status of his/her application and one email each for both the recommenders to submit their recommendation.

Application Status Tracking

The student should be able to track his/her application progress by visiting a specific page and entering the tracking number. The various application status could be: submitted, recommendation 1 received, recommendation 2 received or pending decision. If a wrong tracking number is entered, a proper error message should be displayed.

Recommendation Submission

The recommenders would have received a link in their email, and this link will redirect them to a page with a text area where they can type in their recommendation. Please set a limit of 750 words and handle error cases appropriately. A submit and clear button should be provided. On submit, the recommender should be taken to a confirmation page saying his/her recommendation for a student x was successfully submitted or not. Once the recommendation is submitted, the link should no longer be accessible.

Application Roles

There are two kinds of roles in the application.

- One role is the super admin and is the administrator of the entire application.
- The other role is a department administrator and the user with this role can administer applications only specific to the department which the user is assigned.

All the administrators would login via a common login page, based on the role appropriate view should be loaded. The super admin should also be able to add new department administrators, assign them to specific departments, ability to modify the properties of the existing department administrators and support deletion of the existing department administrators as well.

Application Views

- The super admin would be able to view all the applications submitted to date.
- The individual department administrators would be able to see only the set of applications specific to their department.

Ex: A computer science department administrator would be able to see only the computer science department scholarship applications.

Please display the applications in a GridView format. Also, provide a button to export the GridView data into an Excel Sheet. In the GridView, the resume and both the recommendations are links, and they should open the appropriate documents associated with them.

Search

A search box should be provided, so that the administrators can search for the applications submitted by the students FirstName or LastName. The search results should be rendered in the GridView itself. Please handle all the error conditions appropriately.