



Coding Assignment

Background

Acme Consulting Corp. has grown its professional services team from 5 consultants to over 20 consultants this past year. As a result, the informal processes for project management are no longer working and Acme now requires automated processes to help manage the increased complexity, to protect the highly confidential nature of it's project work and to prevent critical items from slipping through the cracks.

At the outset of last year Acme implemented both Salesforce and Google Apps for business to manage it's customers and projects, however, the systems are not currently integrated. Each time a new project is initiated, a Project Manager manually creates a new Project record in Salesforce, and a corresponding Google Drive folder with the same name for documents. They also must manually "Share" the folder with only the people who are working on this project. Recently, project managers have been requesting a single-view of the project record in Salesforce where they can *also* view and interact the Google drive files/folders.

Upon the creation of a new salesforce project a corresponding project folder and record should be automatically created within Google Drive with the same name as the project. In addition, two files should be automatically created within the folder based upon two pre-defined templates: one word doc and one spreadsheet doc (note: since these pre-defined templates do not yet exist, any placeholder template/layout can be used during development).

Given that each project is confidential and sensitive, the security settings on the Google Drive folder must enforce the same security settings on it's corresponding Salesforce Project record. Every Acme employee has both a Salesforce user account and Google Apps for business user account. You can assume if a Salesforce user is allowed to access the Project record, then they should also be allowed read/write access to the folder in Google Drive.

Acme would also like to implement a custom VF component within the Project record to enable users to view the name and size of files within the related project folder in Google Drive.

By adding these new features, Acme believes it will reduce security risks and increase efficiency for Project managers and team members and most importantly... make it's users happy Salesforce users!

Objectives

- Make any necessary configuration changes to Salesforce
- Automatically create and share folders/files in Google Drive when new projects are created
- Create an inline VF page on the Customer that is integrated with Google Drive via API to display file metadata
- VF page should support multiple form-factors and render well on both Desktop and Salesforce1 mobile
- Apply and demonstrate best practices for VF, Apex, API integration, Token management
- Apply and demonstrate best practices for Web development



Bonus Assignment

The CTO would like to see the entire Project folder structure within Google Apps. As such, a System User account should be used when integrating between Salesforce and Google Apps - and this account will “own” all Project folders and files. The users associated to the Salesforce project would then be given sharing permissions as needed. In essence, a Google project folder/file should never be directly owned by a user - rather they will just have read/write access.

Resources

Apex Developers guide

http://www.salesforce.com/us/developer/docs/apexcode/salesforce_apex_language_reference.pdf

<http://www.salesforce.com/us/developer/docs/apexcode/index.htm?apex>

Visualforce Developers guide

http://www.salesforce.com/us/developer/docs/pages/salesforce_pages_developers_guide.pdf

<http://www.salesforce.com/us/developer/docs/pages/>

Sign-up for “Dev Org” click “Join Now” - <http://developer.force.com/>

Leverage the ACME Google Apps for business account:

<http://www.google.com/a/acmetest.ca>

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gsInterview2!

Data model

Use the out-of-box Account and create a related Project custom object
