

Date: 13 February 2018
To: Vreda Pieters
CC: David Allen, Dirk Naude
From: DJ Janse van Rensburg
Subject: EPI-USE Africa – COS 301 final year project proposal
Priority: High

EPI-USE Africa is pleased to present the University of Pretoria with a proposal for the COS 301 final year project and would like to thank the Computer Science department for the opportunity to do so.

Introduction:

EPI-USE is firm that specializes in consulting services for Software implementations. In this field recording of consultant's time spent at clients is the extremely important as it becomes is one of the main mechanisms for billing clients as well as tracking progress on projects.

EPI-USE is looking for a Mobile solution that addresses the need to track time spent on various projects and be able to report on allocated vs actual hours worked.

Solution Specification

In the EPI-USE landscape there are three main systems that deal with the details of a project. Salesforce, Sage 300 and Maconomy.

- Salesforce is a system that logs the opportunities and details of a client project
- Maconomy is our time-keeping system
- Sage 300 is the employee master data system.

The requirement is to use the API's of these systems to read data for the proposed "Consultant tracker" app.

App modes

The solution should either consist of two separate apps or one app with two different modes.

Admin mode

Here we expect the app to be able to give the manager a view of all his resources (read from the Sage 300 system) and all logged projects (read from the Salesforce system). The manager should then be able to assign resources to projects and also assign the allotted hours per consultant for the particular engagement. This should then be stored in the app's database.

Report View

The app should have a view where the manager can select a project and see the resources assigned. Each resource should have a tracking bar associated with it that displays the assigned hours pegged against the hours worked so far (read from the Maconomy system).

The solution should warn/notify both manager and employee when a certain threshold, made up of a % of the hours worked vs hours allocated, is reached.

Consultant mode

The Consultant should be able to use the app to see all the projects he is assigned to and view the hours worked vs hours assigned on a tracking bar (same as with the Admin mode).

The user should be able to log any risks on a project which should reflect on both the Admin and Consultant's app's tracking bar as an icon.

Extra

- As an optional extra the app (both modes) should read Asana's (a project collaboration tool) API to get the progress on projects and indicate the milestones on the app's track bar (timeline)
- Single Sign-on between the "Consultant Tracker" app and the third party systems.

Technology

- The application should be written in the following programming languages:
- OpenUI5 for the Frontend
- Java for the Backend
- MongoDB for the Database
- Use of SOAP and REST services depending on the third party system

Useful Web resources

- Salesforce: https://developer.salesforce.com/page/Salesforce_APIs
- Asana: <https://asana.com/guide/help/api/api>
- Maconomy: https://www.google.co.za/search?ei=DbSCWuvACIf4gQam9ZyQDA&q=open+rest+api+for+deltek+maconomy&oq=open+rest+api+for+deltek+maconomy&gs_l=psy-ab.3...85439.91317.0.91419.13.13.0.0.0.0.672.1577.2-2j1j0j1.4.0....0...1c.1.64.psy-ab..10.0.0....0.1OoLP4BJ7UE
- Sage 300: <http://www.netatwork.com/newsletter/sage-300-newsletter-march-2016/sage-300-integration-via-apis/>

