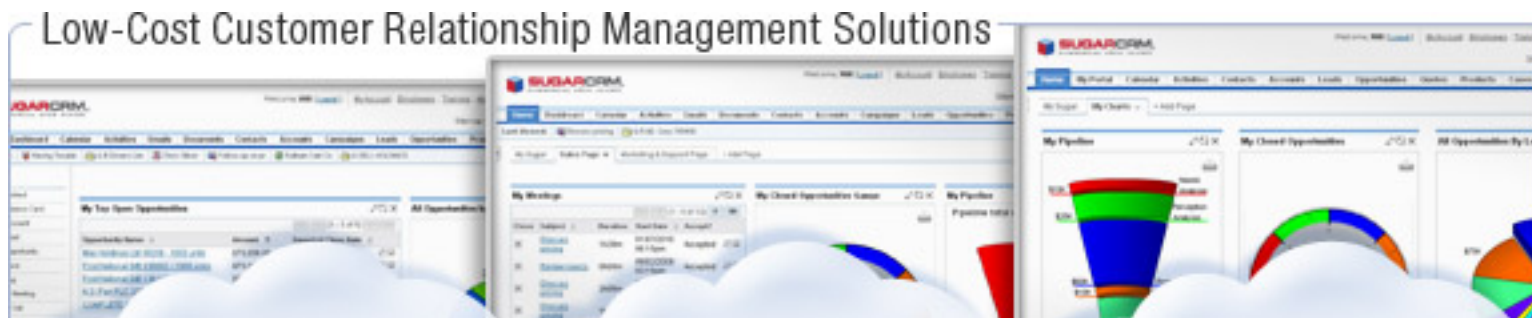# Kent State - SugarCRM Capstone Spring 2011
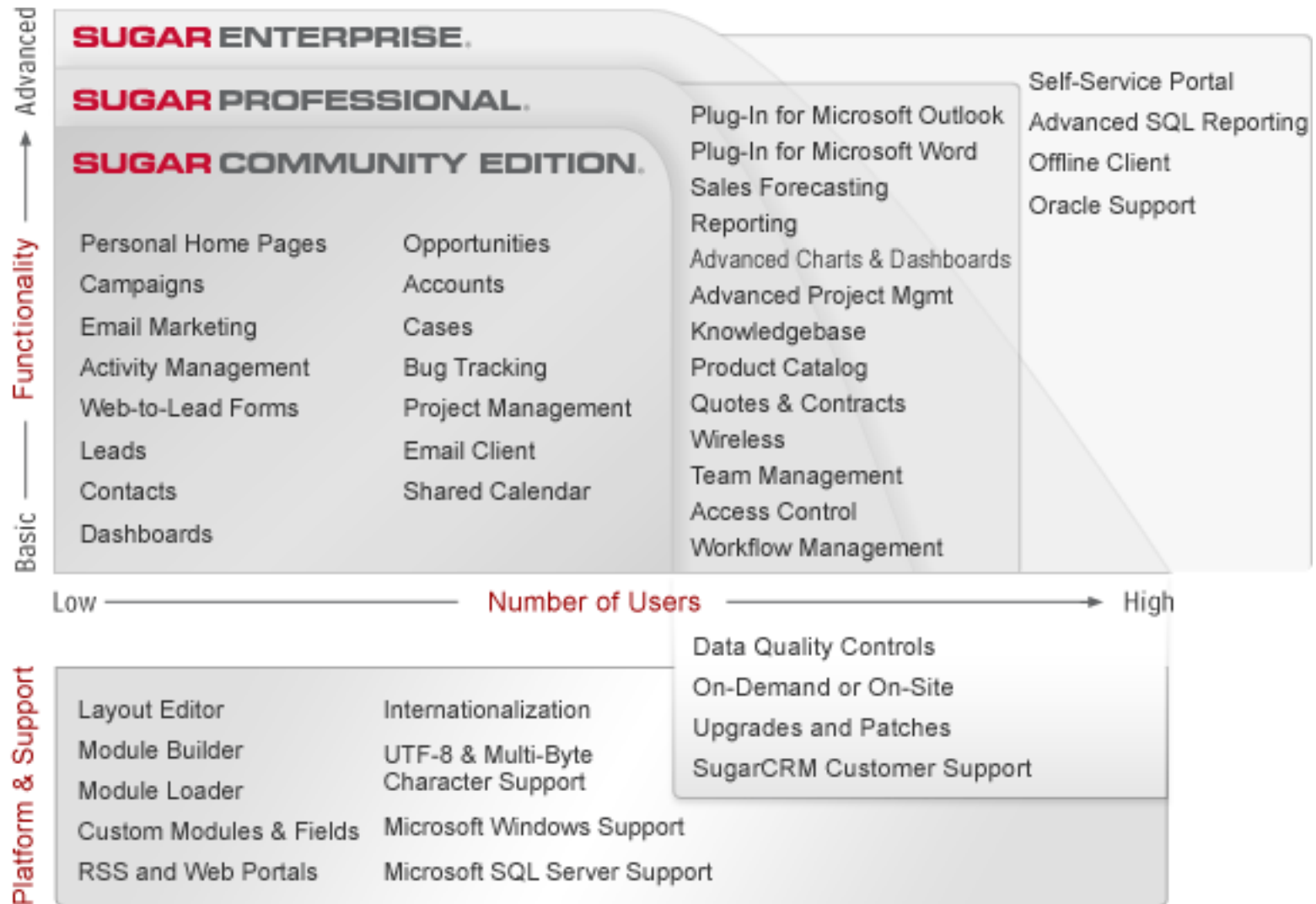
John Mertic

What is SugarCRM?

- World's leading provider of open source CRM (Customer Relationship Management) software.
  - Founded as an open source project in 2004.
  - Over 5 million downloads.
  - Currently serves over 500,000 users in 75 different languages.

SUGARCRM.
THE CLOUD IS OPEN

SugarCRM Editions

Advanced / Functionality / Basic

SUGAR ENTERPRISE.

SUGAR PROFESSIONAL.

SUGAR COMMUNITY EDITION.

Personal Home Pages	Opportunities	
Campaigns	Accounts	
Email Marketing	Cases	
Activity Management	Bug Tracking	
Web-to-Lead Forms	Project Management	
Leads	Email Client	
Contacts	Shared Calendar	
Dashboards		

Plug-In for Microsoft Outlook
Plug-In for Microsoft Word
Sales Forecasting
Reporting
Advanced Charts & Dashboards
Advanced Project Mgmt
Knowledgebase
Product Catalog
Quotes & Contracts
Wireless
Team Management
Access Control
Workflow Management

Self-Service Portal
Advanced SQL Reporting
Offline Client
Oracle Support

Low ——— Number of Users ——→ High

Platform & Support

Layout Editor
Module Builder
Module Loader
Custom Modules & Fields
RSS and Web Portals

Internationalization
UTF-8 & Multi-Byte Character Support
Microsoft Windows Support
Microsoft SQL Server Support

Data Quality Controls
On-Demand or On-Site
Upgrades and Patches
SugarCRM Customer Support

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SugarCRM as a platform

- Built using PHP on a LAMP architecture
  - Runs on Linux, BSD, Solaris, Mac OS X, Windows
  - Uses MySQL or SQL Server as a database (Oracle supported in Enterprise version)
  - YUI used for most of the rich UI / AJAX effects.
- Comes with Web Services API to enable other applications to easily connect to it
  - SOAP
  - Rest (new in Sugar 5.5)
  - Cloud Connectors
- Easily extensible
  - Built-in GUI tools for changing built-in functionality and adding new functionality
  - Also extensible thru PHP code

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Web Services

- The W3C definition
  - "a software system designed to support interoperable machine-to-machine interaction over a network. It has an interface described in a machine-processable format (specifically Web Services Description Language WSDL). Other systems interact with the web service in a manner prescribed by its description using SOAP messages, typically conveyed using HTTP with an XML serialization in conjunction with other Web-related standards."
- Types
  - XML-RPC
  - SOAP
  - REST

SugarCRM Web Services

- Has both a SOAP and REST interface
  - REST interface supports sending and receiving payload via JSON or serialized PHP data
- Extensible and Customizable
  - Versioned API so we can make changes without breaking existing code

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Problems with the API

- Very Clunky
  - Inherent problem, since it's REST and SOAP are language agnostic
- Hard for developers to get started with using it
  - Steep learning curve to getting started with it
  - API very procedural and not very self-documenting

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What the semester project is…

- Build a language specific API on top of the SugarCRM Web Services API in the language of your choosing
  - Check out https://github.com/chicks/sugarcrm/ for an example of a really good one in Ruby
- You can choose any language to implement this in
  - Good choices include Java, anything .NET, Python, or PHP
- Requirements
  - Must have the same functionality as someone accessing the Web Services API directly thru REST or SOAP
  - Should have full test coverage of the API library
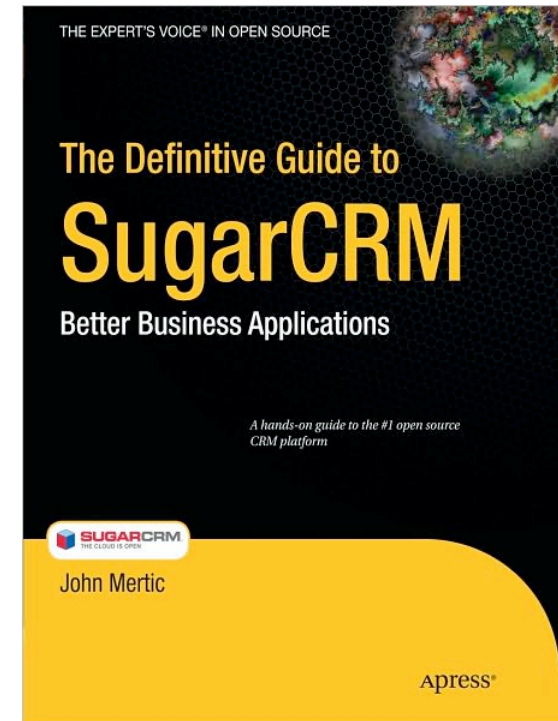- All code will be made open source after the class is completed.

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Web Services Demo!

SugarCRM Resources

- SugarCRM Developer Guide (Web Services) – http://bit.ly/e5eI6p
- Sugar Developer Blog (Web Services) - http://bit.ly/fFLQbx
- Sugar Forums - http://www.sugarcrm.com/forums/
- SugarForge - http://www.sugarforge.org/
- "The Definitive Guide to SugarCRM: Better Business Applications" – http://amzn.to/c50tNE
- All my code and presentations available at http://bit.ly/guBn5X

Questions?