



Getting Started with Sugar Development

Robert Bers

Sr. Technical Trainer/Instructional Designer,
SugarCRM

Robert Bers, Instructor/Courseware Developer



- With SugarCRM since March 2015
 - Dedicated developer trainer at Sugar U.
 - Work with Developer Support, Engineering
- Core Background: Programming/Technical Training
 - B.A. Math, M.S. Computer Science
 - Started career as a programmer
 - Professional technical trainer since last century!
- Worked in several domains:
 - banking, finance, content mgmt, bpm, integration

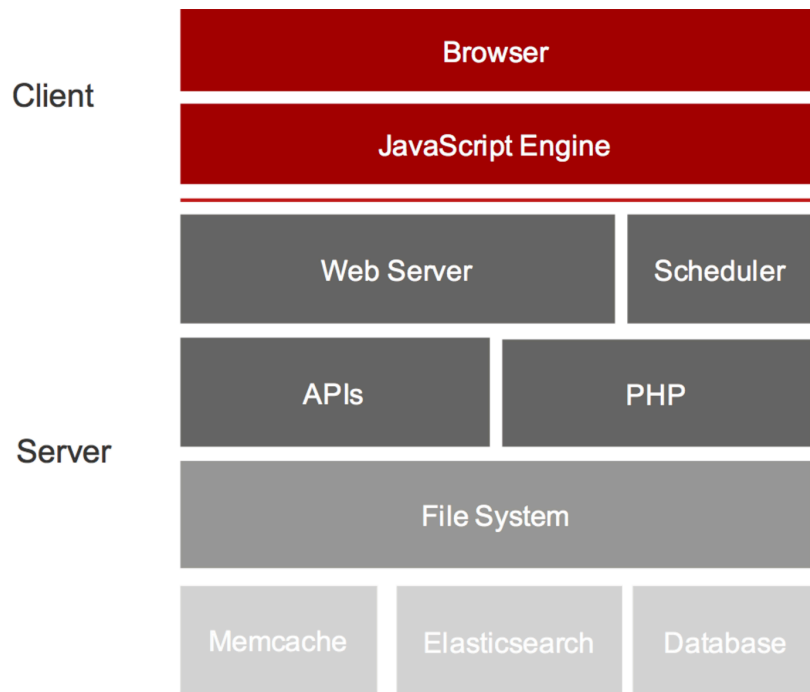
Getting Started with Sugar

- The fundamentals of customizing the Sugar platform through development.
 - Application/Architecture overview
 - Sugar customization overview
 - Sugar platform architecture and the Extension Framework
 - Core Sugar UI components and the Sidecar Framework
 - Understanding Configuration vs. Coding

Sugar Application Overview

- Application/Code walkthrough
- Key features
- Your initial questions?

Platform Architecture Overview



- Based on the LAMP stack
 - Varies based on installation reqs.
- Front-end framework: [Sidecar](#)
 - Based on open source JS libs
- Customizable by users, admins and developers
- Development guided by documentation/community

Sugar Customization Overview

- Personalization
 - Performed by end-users
- Configuration
 - Performed by admins or developers
- Extension ('Development')
 - Performed by developers

The Extension Framework

- Supports 'safe' modifications to Sugar
 - Supports installing, uninstalling, enabling, disabling multiple independent customizations
 - Employs the `<sugar>/custom/Extension` directory
 - See: [Sugar_Developer_Guide_7.7/Architecture/Extensions/](#)
- Coexists with other extension points on platform
 - Ex. Sidecar Framework

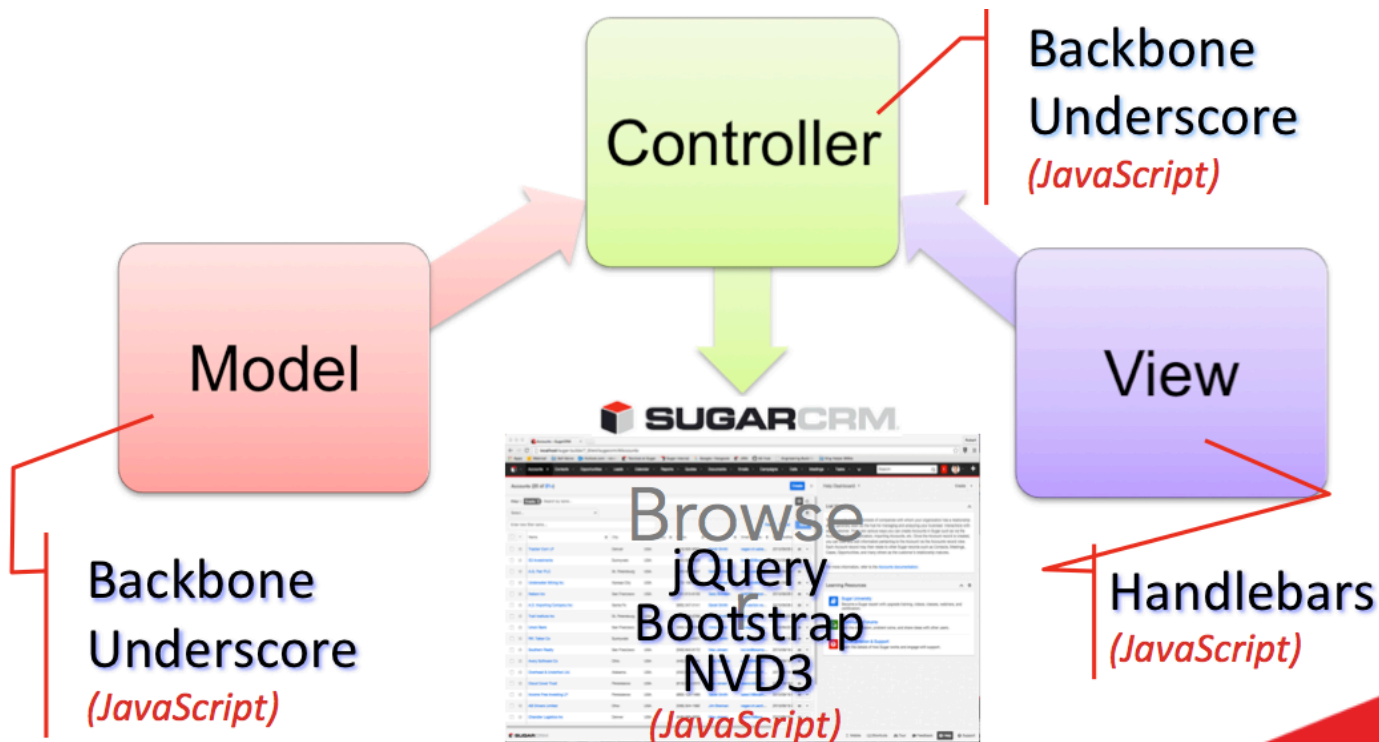
Extension Framework - Customization Examples

- Vardefs Extension
- LogicHooks Extension
- Language Strings
- Custom Filters - (elements of)
- Highlight Field/Google Autofill Example
 - Language strings, Studio, JS Groupings

The Sidecar Framework - Core Technologies

- Implemented primarily in JavaScript in Sugar 7.x
- Based on several open source JavaScript technologies
 - jQuery
 - Underscore
 - Backbone
 - Handlebars
 - Bootstrap
 - NVD3
- Explore: Sidecar libraries - [sugar.com/sidecar](https://sugarcrm.com/sidecar)

The Sidecar Framework - Core Technologies



Sidecar Framework - Customization Examples

- Custom Validation
 - Applied to both view and field components
- Custom Button
 - Varies approaches, multiple contexts
- Custom Layouts, Views and Dashlets
- Dynamic Views
- Others ...

Customization: Configuration + Development

- Often, customizations require a combination of configuration and development
- Examples:
 - Convert field to dropdown menu
 - Custom modules
 - Sugar Logic
- Acquire your administrator skills !!!!!

PHP Usage in Sugar

- Metadata - (Vardefs, Viewdefs)
- SugarQuery - Meta query language
- SugarLogic - (with/JavaScript) - Calc/Dep. Fields
- SugarBean - Data Modelling
- REST API - Database Operations (CRUD)
- BWC Modules - 6.x



SESSION WRAP-UP

Questions, Resources and Follow-up

Working Towards Sugar Developer Certification

- Self-paced guidance available at Sugar University
- Develop a study plan:

- | | |
|--|--|
| <ol style="list-style-type: none">1. Get up to speed with CRM concepts<ul style="list-style-type: none">- Develop your understanding of CRM2. Understand SugarCRM Application concepts<ul style="list-style-type: none">- End-User training- Become comfortable navigating Sugar3. Acquire Administrator Skills<ul style="list-style-type: none">- Administrator training<ul style="list-style-type: none">- Grounding in core concepts such as:<ul style="list-style-type: none">- Modules- Relationships- Role and Team Security- System Configuration- Application Configuration<ul style="list-style-type: none">- Studio, Module Builder- Many of these concepts are core to the developer skill set. | <ol style="list-style-type: none">4. Pass the Certified Sugar Admin Specialist exam5. Take Developer Training<ul style="list-style-type: none">- Self-paced and live training- Live courses include guided exercises- Developer Essentials course is expanding- new examples6. Practice, practice, practice<ul style="list-style-type: none">- Practice the lessons and examples from the classroom training and other sources!- Create your own variations- Explore the effects of Configuration- Troubleshoot- Use the available tools7. Return to the documentation |
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Questions?

- Concepts?
- Techniques?
- Applicability?
- Context?

Resources and Follow-up

- Resources
 - Sugar and Community
 - Uncon resources
 - developer.sugarcrm.com
 - community.sugarcrm.com
 - Sugar University
 - Live and self-paced training
 - Documentation
 - support.sugarcrm.com
- Contact me:
 - rbers@sugarcrm.com
 - technical questions
 - requests for resources
 - guidance with training



Getting Started with Sugar
Development

Thank You!