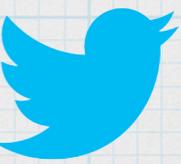


# Building Custom Applications with Fabrik

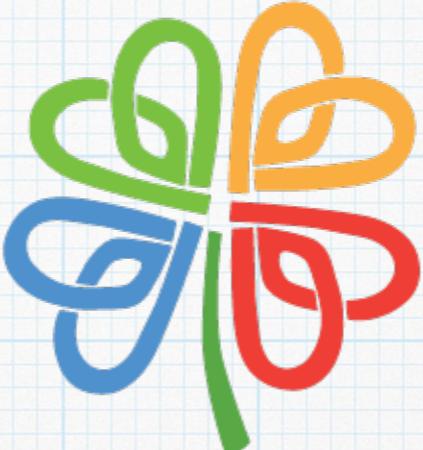
---

For the Non-Developer in all of us



Presented for #JD14BOS by @RobbieAdair 

# Session Roadmap



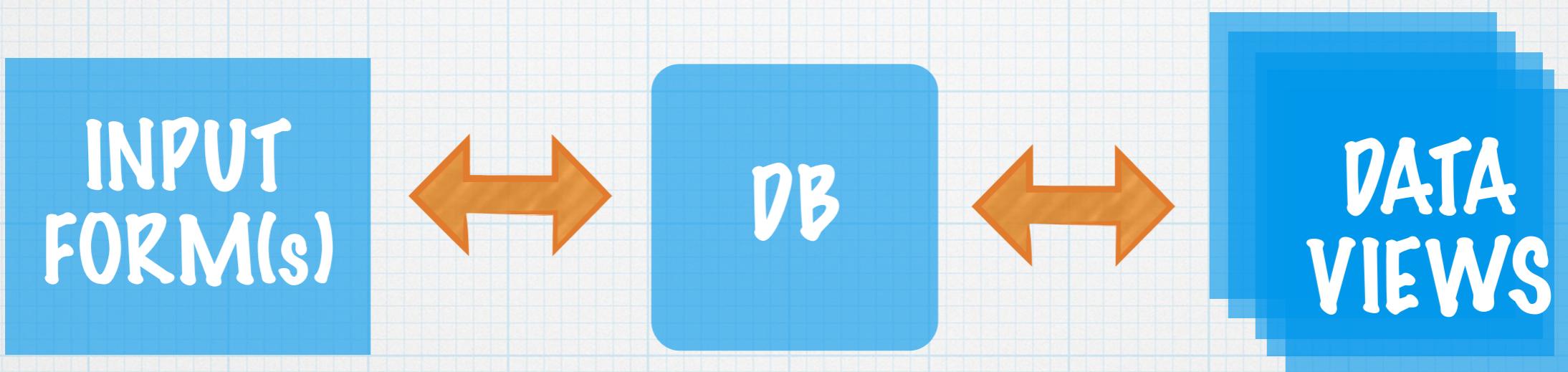
JoomlaDay™  
**BOSTON**  
March 15–16, 2014

- \* What is Fabrik and Why Would We Use It?
- \* What We Need to Start
- \* A Closer Look at Fabrik
- \* The First Steps
- \* Let's Build Something!
- \* Questions

Time Permitting

# What is FABRIK?

Fabrik is a highly flexible Joomla!  
Component for Building Custom Web Applications.



- \* Forms for Users to Enter Data
- \* Multiple Display Options to Show Data
- \* Database Relationship Management
- \* Fine-grained Access Control

# Why Would We Use FABRIK?

- \* Can't accomplish what we want with native Joomla!
- \* Can't find a component that does exactly what we want (or that can't be customized without touching the core of the component)
- \* Need input or display back information in the Joomla! database or other databases
- \* Need Granular Access Control on sections of data or operations



# Why Would We Use FABRIK?

So, basically we need a custom component, but...

- \* don't want to code from scratch
- \* don't want to continually update component core with Joomla! updates
- \* want a product that is being used by a community of users  
(open source concept for continuous improvement)
- \* want to save TIME and MONEY



# The Basic Tools We'll Need to Start



The Platform Millions of Websites Are Built On

- Over 35 million downloads and counting
- Thousands of extensions and designs
- User-friendly and mobile-ready

[Download](#) [Demo](#) [Joomla! 3](#)

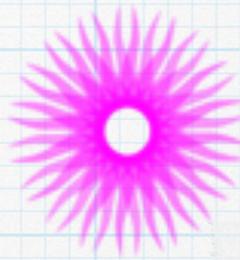
**JOOMLA ANNOUNCEMENTS**

**Joomla! 3.2.3 Released**  
The Joomla Project and the Production Leadership Team are proud to announce the release of Joomla! 3.2.3 which is a security release and also resolves a significant number of issues and bugs. If you are currently...

**Joomla! 2.5.19 Released**  
The Joomla Project is pleased to announce the immediate availability of Joomla 2.5.19. Joomla 2.5.19 is a security release addressing two medium level vulnerabilities. The update process is very simple, and complete instructions are available here. [Note...](#)

**Joomla Community Magazine | March 2014**  
The March issue of the Joomla Community Magazine is here! Our stories this month: Editors Introduction Joomla CMS, Joomla! Framework, and Licenses, by Guillermo Bravo Project News Leadership Highlights March 2014, by Marijke Stuivenberg Joomla Certification - We Keep On...

What is Joomla? [Video]



## FABRIK

The Joomla! Application Builder

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[Log out](#) Hi Robbie Adair, [Fork me on GitHub!](#)

### Make Joomla! Applications

<Coding optional>

[Learn more](#) [Free download](#)

### Subscribe

Pro-support

[Sign up!](#)

**Flexible Joomla! content creation**  
Fabrik is a highly flexible Joomla! component for building custom web applications. Create beautiful forms to allow your users to enter data, then display the data in lists, map, calendars, timelines, charts and more!  
Our innovative engine manages your database relationships for you, and our fine grained access control settings ensure that each user has access to just the right sections of your app.

View our video to see how you can make a web app in 30 minutes

**Question?**  
Click here to chat with us!

Offline - Leave a message

**Fabrik 3.1 / Joomla 3**  
from rob clayburn PLUS



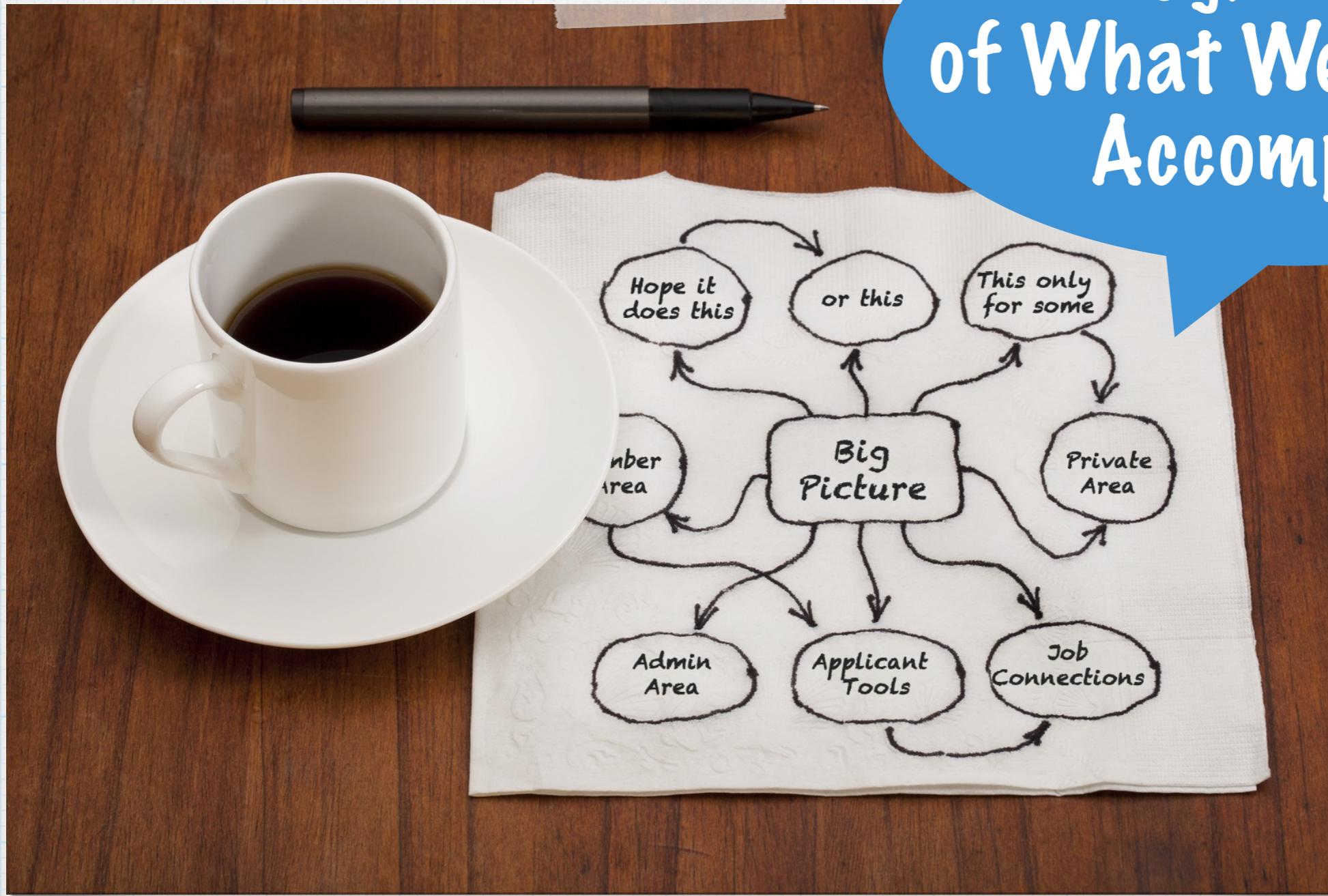
## Both are Free to Download!

<http://joomla.org>

<http://fabrikar.com>

# Last Thing We'll Need to Start

Rough Outline  
of What We Want to  
Accomplish!



**WARNING:** Large quantities of caffeine could be involved.

# A Look at FABRIK

## \* Home

A dashboard with news, sample data, links to help

System ▾ Users ▾ Menus ▾ Content ▾ Components ▾ Extensions ▾ Help ▾      Fabrik Session ▾      Options ▾

Fabrik - welcome      Joomla!®

Home      Lists      Forms      Groups      Elements      Visualizations      Packages      Connections      Schedule



 **FABRIK**  
as joomla app builder

**Subscribe and get**

- Dedicated support
- Concise and clear documentation
- Video tutorials

 **Subscribe now...**

About      News      Stats      Useful links      Tools

Fabrik is an open source Joomla application builder component. Fabrik gives people the power to create forms, tables and visualizations that run inside Joomla without requiring knowledge of MySQL and PHP, all from within the familiar Joomla administration interface. With Fabrik you can create applications that range in complexity from simple contact forms to complex applications such as a job application site or bug tracking systems.

# A Look at FABRIK

## \* Global Options

Note: This is where you can enable Debugging

The screenshot shows the Joomla! Admin Panel with the following details:

- Header:** System, Users, Menus, Content, Components, Extensions, Help, Fabrik Session, Settings.
- Breadcrumbs:** Fabrik Options.
- Toolbar:** Save, Save & Close, Cancel, Help.
- Left sidebar (Fabrik):** Global Configuration, Component: Banners, Cache Manager, Check-in, Contacts, Articles, Smart Search, Installation Manager, JCE Administration, Joomla! Update.
- Content Area:**
  - Global Configuration:** Allow fabrikDebug (No).
  - Component:** Debug PDF (No/Yes buttons).

# A Look at FABRIK

## \* Connections

Note: Fabrik automatically creates a connection to the Joomla! database, but you can add connections to different databases.

S System ▾ Users ▾ Menus ▾ Content ▾ Components ▾ Extensions ▾ Help ▾      Fabrik Session ▾      

### Fabrik: connections

 New  Edit  Publish  Unpublish  Check In  Trash  Help  Options

| ID | Label                         | Host      | Database | Default   | Published   | Test connection                 |
|----|-------------------------------|-----------|----------|---|---|---------------------------------|
| 1  | <a href="#">site database</a> | localhost | fabrik   |  |  | <a href="#">Test connection</a> |

Home  
Lists  
Forms  
Groups  
Elements  
Visualizations  
Packages  
**Connections**  
Schedule

Filter:    20 

Filter:  
 

# A Look at FABRIK

## \* Packages

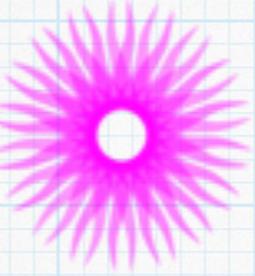
Create an installable component for multiple sites of your custom app

Note: Only works with the same version of Joomla! as was originally created in

The screenshot shows the Joomla! administrator dashboard with the Fabrik extension installed. The top navigation bar includes links for System, Users, Menus, Content, Components, Extensions, and Help. The main title is "Fabrik: packages". Below the title is a toolbar with buttons for New (+ New), Edit (Edit), Export, Publish (green checkmark), Unpublish (red X), Check In (checkbox), and Trash (trash can). To the right of the toolbar are links for Help and Options. A message box displays "Item successfully saved." On the left, a sidebar lists various Fabrik components: Home, Lists, Forms, Groups, Elements, Visualizations, Packages (which is selected and highlighted in blue), Connections, and Schedule. The main content area shows a table with one item: ID 2, Label "My Custom App", File (link to export), and Published (checkbox checked). The table has columns for ID, Label, File, and Published.

| ID | Label         | File   | Published                           |
|----|---------------|--|-------------------------------------|
| 2  | My Custom App | <a href="#">Export this package to create an installable zip</a> | <input checked="" type="checkbox"/> |

# A Look at FABRIK



# \* Schedule

Create a task that is setup to run at repeatedly at a given time and interval.

**Note: Requires Fabrik Cron Plugin(s) to work**

System Users Menus Content Components Extensions Help Joomla! Joomla Menu Tu... ☰

## Fabrik: new scheduled task

Save Save & Close Save & New Cancel Help

---

### Details

|            |  |
|------------|--|
| ID         | 0  |
| Label *    | Test Cron  |
| Last run   | <input type="button" value=""/>                                      |
| Status     | <span>Published</span> <span>Unpublished</span> <span>Trashed</span> |
| Connection | site database  |
| List       | Please select  |
| Plug-in *  | email  |

### Run

|         |      |
|---------|------|
| Every * | 12   |
| Unit    | hour |

### Log

|                     |                                  |
|---------------------|----------------------------------|
| Log events          | <span>No</span> <span>Yes</span> |
| Email to            | <input type="text"/>             |
| Require querystring | <span>No</span> <span>Yes</span> |

# A Look at FABRIK

## \* Visualizations

Display data out of database as a chart, a map, a line graph, calendar, etc

Joomla!® Fabrik: visualizations

[+ New](#) [Edit](#) [Publish](#) [Unpublish](#) [Check In](#) [Trash](#) [Options](#) [Help](#)

Home Lists Forms Groups Elements **Visualizations** Packages Connections Schedule

Filter:    20 ▾

| ID | Label        | Type        | Published                           |
|----|--------------|-------------|-------------------------------------|
| 1  | Places       | googlemap   | <input checked="" type="checkbox"/> |
| 2  | Calender     | calendar    | <input checked="" type="checkbox"/> |
| 3  | Fusion Chart | fusionchart | <input checked="" type="checkbox"/> |
| 4  | Coverflow    | coverflow   | <input checked="" type="checkbox"/> |
| 5  | slideshow    | slideshow   | <input checked="" type="checkbox"/> |

Filter:  
- Select Status -  
- Select Status -

# A Look at FABRIK

## \* Menu Items

Many Types Fabrik menu items (details, form, list, package, visualization, csv)

The screenshot shows a software interface with a sidebar on the left containing various menu items like 'Articles', 'Configuration Manager', 'Contacts', 'Fabrik', 'Newsfeeds', etc. The 'Fabrik' section is expanded, showing sub-options: 'Details' (STANDARD Fabrik details layout), 'Form' (STANDARD Fabrik form layout), 'List' (STANDARD Fabrik list layout), 'Package' (STANDARD Fabrik package layout), 'Visualization' (Visualization), and 'csv' (CSV Export). At the top of the main window, there are buttons for 'Alias' and 'Auto-generate from title'. On the far right, there are several vertical tabs labeled 'Menu L...', 'Main...', 'parent...', 'Menu...', 'orderin...', 'orderin...', 'status...', 'Publis...', 'efault...', 'access...', and 'Public...'. A close button (X) is visible in the top right corner of the main window.

# A Look at FABRIK

## \* Lists

Allow us to see what's in a database table(s).  
Can edit, create new, view record, and delete.

S System Users Menus Content Components Extensions Help Joomla! Joomla Menu Tu... 

Fabrik: new list

Save  Save & Close

Data Group by Pre-filter Joins Related data

**Details**

**Data** Connection \* site database

Publishing Table name

Access Or

Plug-ins Database table

Primary key -

Auto increment

Order by

Available once saved

# A Look at FABRIK

## \* Forms

Allows you to push new info into the database table(s). Also used to edit info and re-submit changes to the database.

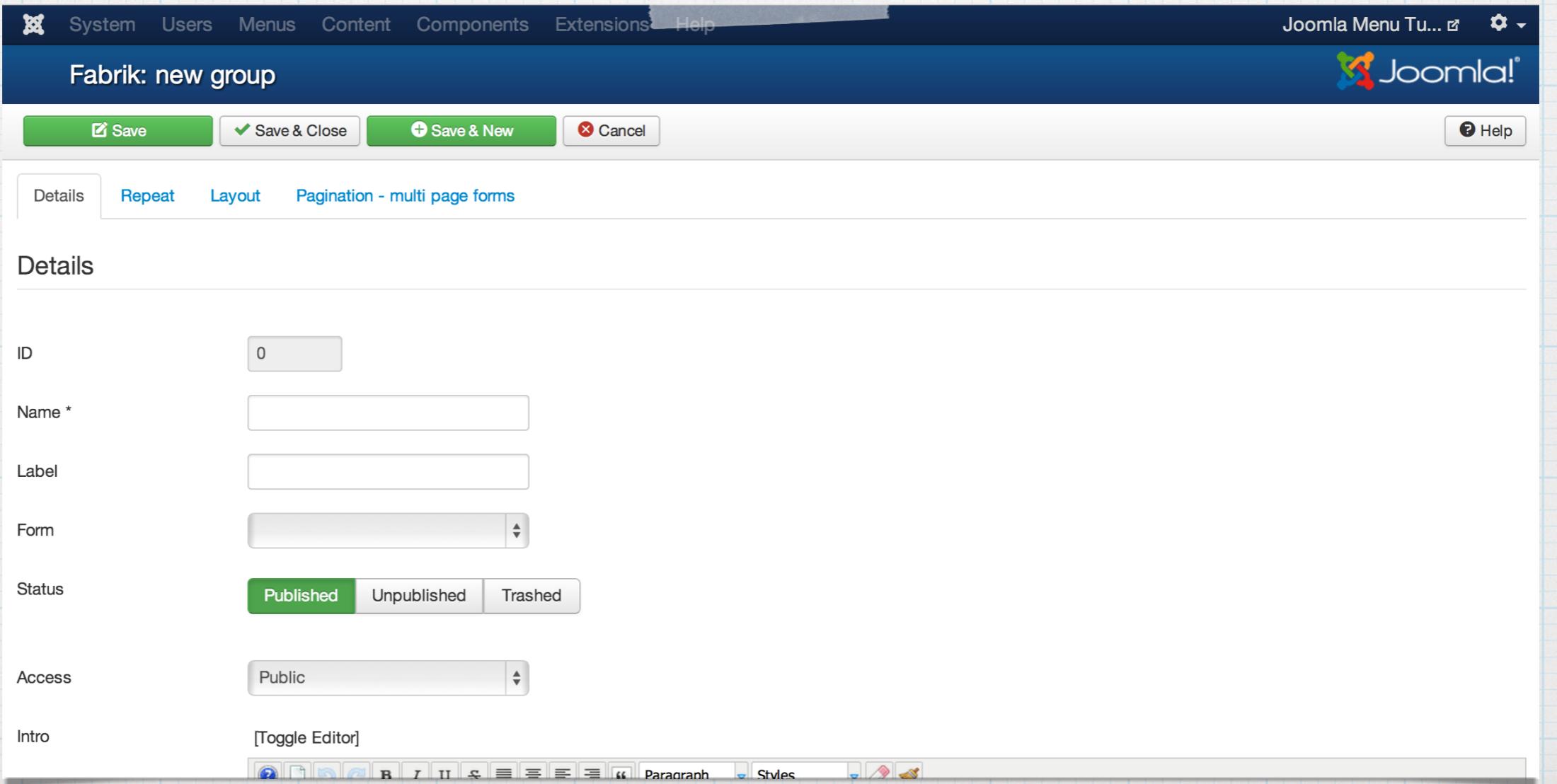
The screenshot shows the Joomla! administrator interface with the following details:

- Header:** System, Users, Menus, Content, Components, Extensions, Help, Joomla Menu Tu..., Settings.
- Title Bar:** Fabrik: new form, Joomla! logo.
- Action Buttons:** Save (green), Save & Close (green), Save & New (green), Cancel (red).
- Help Button:** ? Help.
- Form Tabs:** Details (selected), Buttons, Form processing, Publishing, Groups, Layout, Options, Plugins.
- Form Fields:**
  - ID: 0
  - Label \*: (empty input field)
  - Introduction: [Toggle Editor]  
A large text area with a rich text editor toolbar above it, containing various formatting icons for font, size, alignment, lists, and styles.

# A Look at FABRIK

## \* Groups

Ways to separate elements into sections on the form. (Example: personal data section, job history section, etc.) Can be made to be a repeatable set.



The screenshot shows the Joomla! administrator interface with the 'Extensions' menu selected. A sub-menu for 'Fabrik' is open, showing 'Groups' as the current item. The main content area displays a form titled 'Fabrik: new group'. The form has tabs for 'Details', 'Repeat', 'Layout', and 'Pagination - multi page forms', with 'Details' being the active tab. The 'Details' section contains fields for 'ID' (value 0), 'Name \*' (empty), 'Label' (empty), 'Form' (dropdown menu), 'Status' (radio buttons for 'Published' (selected), 'Unpublished', and 'Trashed'), 'Access' (dropdown menu for 'Public'), and an 'Intro' field with a 'Toggle Editor' link. At the top of the form are buttons for 'Save', 'Save & Close', 'Save & New', and 'Cancel'. The Joomla! logo is visible in the top right corner.

# A Look at FABRIK

## \* Elements

These are the form fields that create and associate with the database table columns.

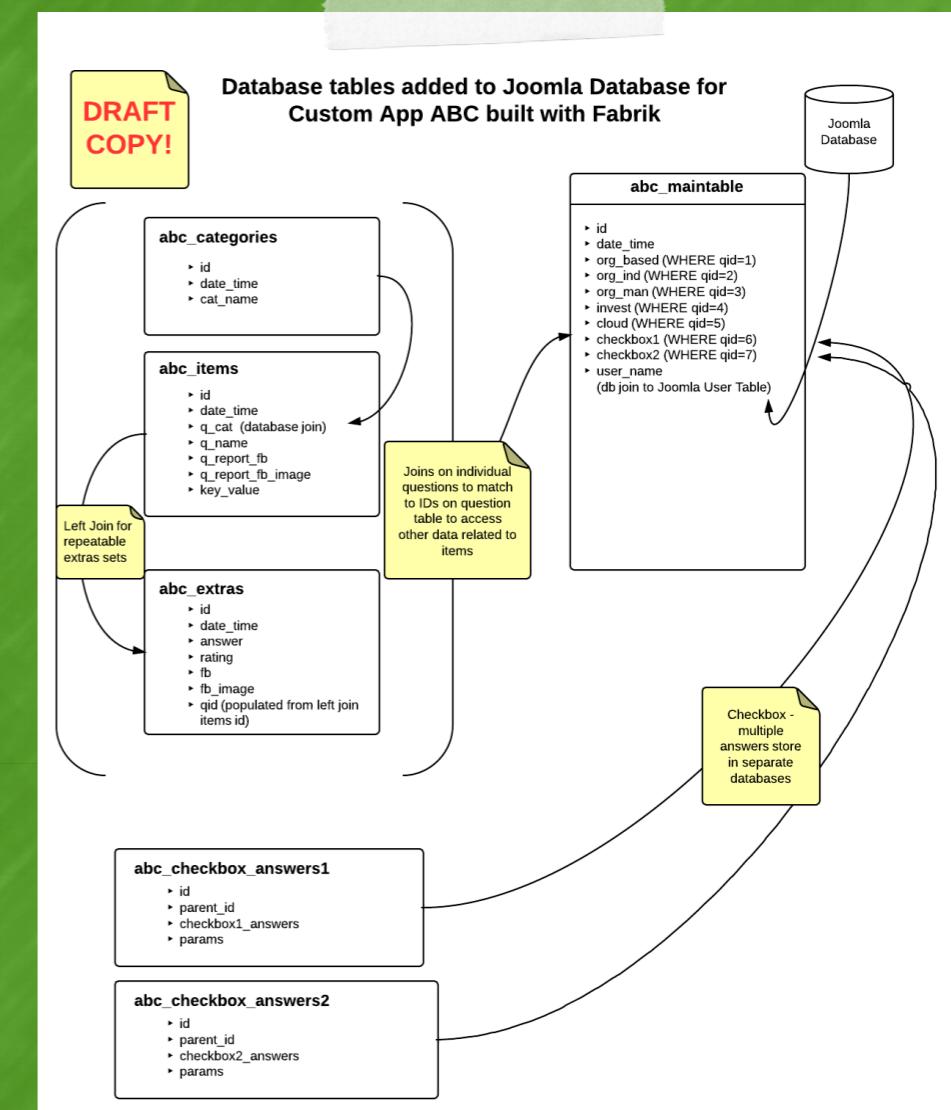
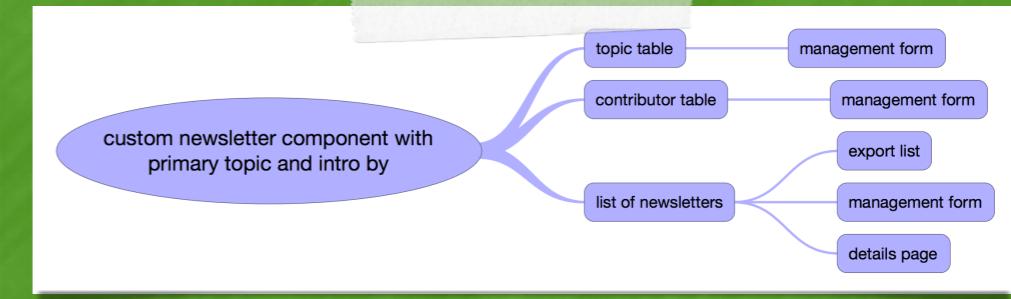
There are many different types of elements: form fields, text areas, drop downs, radio buttons, check boxes, etc.

The screenshot shows a web-based administration interface for creating a new element. The top navigation bar includes links for System, Users, Menus, Content (which is highlighted), Components, Extensions, and Help. Below the navigation is a title bar reading "Fabrik: new element". A row of buttons at the top right includes "Save", "Save & Close", "Save & New", and "Cancel". The main area is divided into two tabs: "Details" (which is selected) and another "Details" tab. On the left, under the "Details" tab, are sections for Publishing, Access, List view settings, Validations, and JavaScript. To the right of these sections are input fields for Name\*, Label, Plug-in\*, Id, Group\*, and Order. A button labeled "Select a plug-in" is located below the Group\* field. A dropdown menu is open over the "Plug-in\*" field, listing various element types: button, checkbox, databasejoin, date, display, dropdown, field, fileupload, googlemap, image, internalid, link, radiobutton, textarea, and user. The menu has a scroll bar on the right side.

# The First Steps

- \* Get an Overview of the Project Sketched Out
- \* Detail out the Specs of the Project
  - Functionality, Access Levels, Layouts, Requirements, etc.
- \* Diagram of our end result and database structure.

Mapping out what we want to happen guides us on how to setup our Database Connections, Lists, Forms, Groups, Elements, and Visualizations (if any) in Fabrik

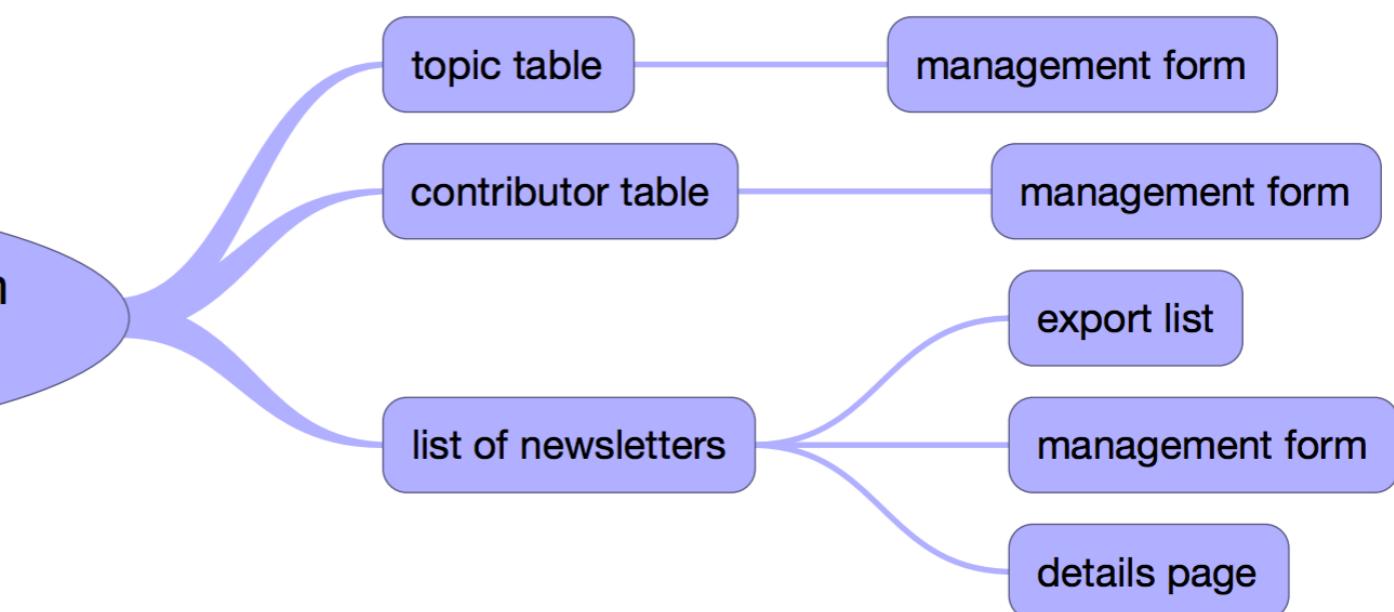


# LET'S BUILD SOMETHING!

- 
1. Review Idea
  2. Map Plan
  3. Implement
  4. Test
- 

# Our Sample App

custom newsletter component with primary topic and intro by





# Questions?

## Questions later?

Business Website: [www.mediaateam.com](http://www.mediaateam.com)

Personal Website: [www.robbieadair.com](http://www.robbieadair.com)

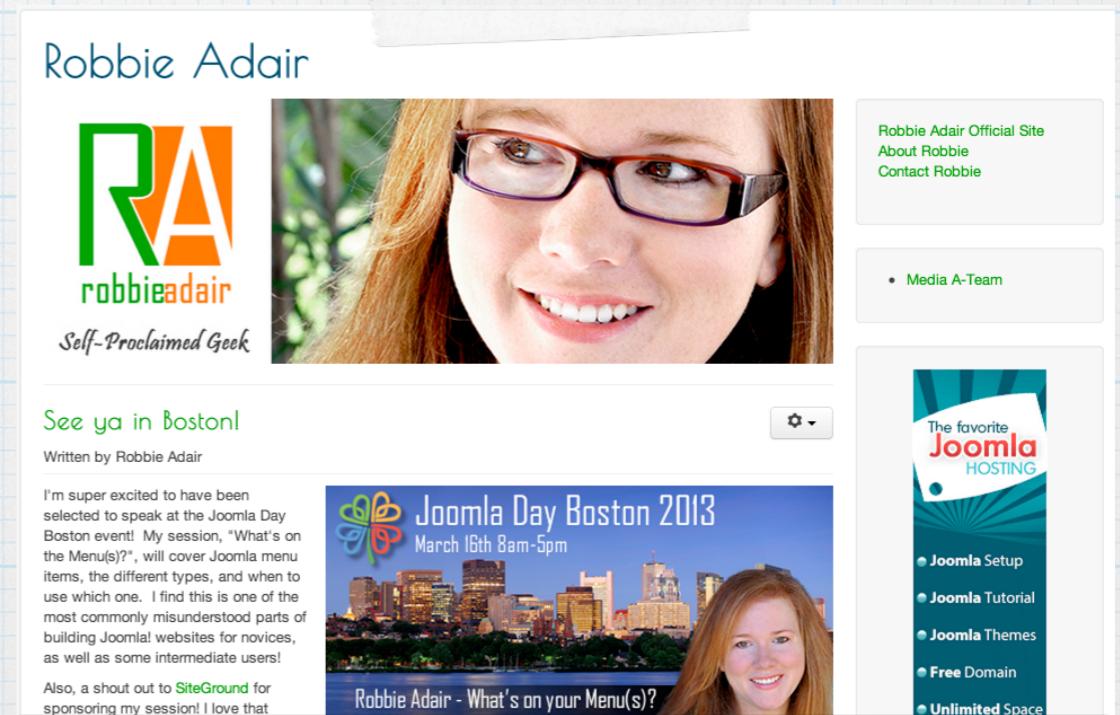
Twitter: [@robbieadair](https://twitter.com/robbieadair)

Twitter: [@mediaateam](https://twitter.com/mediaateam)

Email: [radair@mediaateam.com](mailto:radair@mediaateam.com)



The screenshot shows the homepage of the Media A-Team website. At the top, there's a navigation bar with links for Home, Services, About, Portfolio, Resources, and Contact. Below the navigation is a large banner with the heading "Everything Web". The banner features a woman holding a smartphone displaying various web icons like a magnifying glass, a house, and a shopping cart. A green button labeled "Read More" is overlaid on the banner. Below the banner, there's a section titled "Some of our Creations" showing thumbnails of different websites, including "So Many Whiskies", "Grimes - Print", and "HAPS". There's also a sidebar with a link to "The Road Ahead" and a search bar.



The screenshot shows the homepage of Robbie Adair's personal website. It features a large photo of Robbie wearing glasses and smiling. To the left of the photo is her logo, "RA robbieadair", and the text "Self-Proclaimed Geek". On the right, there's a sidebar with links to "Robbie Adair Official Site", "About Robbie", "Contact Robbie", "Media A-Team", and a Joomla hosting advertisement. The main content area includes a bio about speaking at Joomla Day Boston 2013, a photo of the Boston skyline, and a photo of Robbie smiling.