You can view your nodes*

*And you can view your friends, but you can’t view your friend’s nodes.**

**Well, yeah, you can, but you need more modules.
Important note! This is a beginner’s intro to building Views.

If you are already pretty familiar with making pretty Views, you are pretty likely to find this pretty basic.

I won’t cry if you quick sneak out the back.
John Jameson

- Web developer at Princeton University: jjameson@princeton.edu
- One man band at Duckpond Photography & Design: theduckpond.com
John Jameson

- Web developer at Princeton University: jjameson@princeton.edu
- One man band at Duckpond Photography & Design: theduckpond.com
- Not the defender of Ireland, astronaut or sometime foe of Spiderman.
The Plan

1. Views are Super Awesome
2. Tour of the Views Interface
   a. Sidebar: Garbage in, Garbage out
3. Let’s Build Some Views!
4. Grab Bag: “Advanced” Column
Yay Drupal

- Content types! Taxonomies! Blocks!
Yay Drupal

- Content types! Taxonomies! Blocks!
- And to change where they appear, just write your own PHP MySQL queries!
Yay Drupal

- Content types! Taxonomies! Blocks!
- And to change where they appear, just write your own PHP MySQL queries!
Yay Drupal
● Content types! Taxonomies! Blocks!
● And to change how they look, just write some PHP!

Arnold Schwarzenegger: NOOOOOOOO!

no.

How about no.

Do not want.
Views are Super Awesome

- The Views module codes so you don’t have to.
Views are Super Awesome: News Feeds

STONE HILL CHURCH

Welcome
Sundays
Connect + Learn
Go + Serve
News

Announcements

Featured Events
- Crown Financial Seminar
- Youth Group Super Bowl Party
- Middle School Winter Retreat!
- Stone Hill Arts Series

General Interest
- Meet the New Website

The Week Ahead

Pastor to People for Sunday, Jan. 26
- Explore God, Question #2: Is There A God?

Wednesday, Jan. 29
- AWANA
- Explore God Discussion Group (Adult)
- Explore God Discussion Group (Grad Students)

Saturday, Feb. 1
Views are Super Awesome: Staff Bios

Staff + Leadership

Pastors

Matt Ristuccia
Senior Pastor

Tracy Troxel
Pastor of Congregational Care

Directors & Administrators

Bobby Tunstall
Pastor of Youth and Family Discipleship

Carine Toussaint
Director of Global Outreach
## Calendar

### January 2014

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>30</td>
<td>31</td>
<td>New Years: Office Closed</td>
<td>No Women's Bible Study</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>SHLC Classes Resume</td>
<td>AWANA</td>
<td>Eider's Meeting</td>
<td>Men's Focus</td>
<td>Artist Breakfast</td>
<td>The Center for Marketplace Advancement</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Isaiah Class</td>
<td>Haiti Spring Break Trip Application Deadline (1/13)</td>
<td>Women's Bible Study</td>
<td>AWANA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

See also:
- Pastor to People
- Sermon Archive
Which is all to say: if the data is in the database, a site builder can use Views as a quick and dirty GUI for writing MySQL queries...
Views are Super Awesome

- because Drupal does not have a “pages.” It has a database. Of data.
Meet The Views Interface

To write a View, we’ll need to pick:

1. **FILTERS**: ‘News’ content type
2. **FORMAT**: List
3. **SORT order**: Newest to oldest
4. **FIELDS**: Title
# Meet The Views Interface

## Add new view

<table>
<thead>
<tr>
<th>VIEW NAME</th>
<th>DESCRIPTION</th>
<th>TAG</th>
<th>PATH</th>
<th>OPERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>add sermon for bulletin</td>
<td>Display: Page, In database, Type: Content</td>
<td>default</td>
<td>/upload</td>
<td>Edit</td>
</tr>
</tbody>
</table>

| Archive              | Display: Page, In database, Type: Content | default | /news/archive    | Edit       |

| autocomplete-nodes    | Display: Page, Database overriding code, Type: Content | default | /autocomplete-nodes | Edit       |

| autocomplete-users     | Display: Page, In code, Type: User          | default | /autocomplete-users | Edit       |
## Meet The Views Interface

<table>
<thead>
<tr>
<th>VIEW NAME</th>
<th>DESCRIPTION</th>
<th>TAG</th>
<th>PATH</th>
<th>OPERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>add sermon for bulletin</td>
<td>Display: Page</td>
<td>default</td>
<td>/upload</td>
<td>Edit</td>
</tr>
<tr>
<td>archive</td>
<td>Display: Page</td>
<td>default</td>
<td>/news/archive</td>
<td></td>
</tr>
<tr>
<td>autocomplete-nodes</td>
<td>Display: Page</td>
<td>default</td>
<td>/autocomplete-nodes</td>
<td></td>
</tr>
<tr>
<td>autocomplete-users</td>
<td>Display: Page</td>
<td>default</td>
<td>/autocomplete-users</td>
<td></td>
</tr>
</tbody>
</table>
Add new view

View name *

Description

Show Content of type All tagged with ○ sorted by Newest first

Create a page

Page title

Path
http://stonehill.localhost:8082/

Display format
Unformatted list of teasers with links (allow users to add comments, etc.) without comments

Items to display
10

Use a pager

Create a menu link

Include an RSS feed

Create a block

Save & exit  Continue & edit  Cancel
Add new view

View name

[ ] Description

Show Content of type All tagged with

[ ] Create a page

Page title

Path
http://stonehill.localhost:8082/

Display format
Unformatted list of teasers with links (allow users to add comments, etc.) without comments

Items to display
10

[ ] Use a pager

[ ] Create a menu link

[ ] Include an RSS feed

[ ] Create a block

Save & exit  Continue & edit  Cancel
Create a page

Page title

Path
http://stonehill.localhost:8082/

Display format
Unformatted list of teasers with links (allow users to add comments, etc.) without comments

Items to display
10

Use a pager

Create a menu link

Include an RSS feed
Create a block

Block title

Display format
- Unformatted list of titles (linked)

Items per page
- 5

Use a pager
Add new view

View name *

Description

Show [Content] of type [All] tagged with [ ] sorted by [Newest first]

Create a page

Page title

Path
http://stonehill.localhost:8082/

Display format [Unformatted list] of [teasers] with links [allow users to add comments] without comments

Items to display [10]

Use a pager

Create a menu link

Include an RSS feed

Create a block

Save & exit
Continue & edit
Meet the Views Interface: List Format

- “HTML lists”
- have
- `<ul>` `<li>`

“Unformatted lists”
have
`<div>` `<span>`
Meet the Views Interface: Table Format

“Table” gives you an HTML table -- optionally with fields as sortable columns.
“Grid” gives you divs with breaks after set numbers of cells.

For responsive designs, consider styling a list instead...
Meet the Views Interface: Jump Menu

Jump Menu gives you a drop-down list.
### Meet the Views Interface

<table>
<thead>
<tr>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title: demotest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format: Unformatted list</td>
</tr>
<tr>
<td>Show: Content</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIELDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>The selected style or row format does not utilize fields.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FILTER CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content: Published (Yes)</td>
</tr>
<tr>
<td>Content: Type (= Staff member)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SORT CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content: Title (desc)</td>
</tr>
</tbody>
</table>

## PAGE SETTINGS
- Path: /demotest
- Menu: No menu
- Access: Permission | View publisher

## HEADER

## FOOTER

## PAGER
- Use pager: Full | Paged, 10 items
- More link: No
Meet the Views Interface

**TITLE**
Title: demotest

**FORMAT**
Format: Unformatted list | Settings
Show: Content | Full content

**FIELDS**
The selected style or row format does not utilize fields.

**FILTER CRITERIA**
Content: Published (Yes)
Content: Type (= Staff member)

**SORT CRITERIA**
Content: Title (desc)
Meet the Views Interface: Format

Page details

Display name: Page

Page: How should each row in this view be styled

For: All displays

- Content
- Fields
- Rendered entity

You may also adjust the settings for the currently selected row style.

Apply (all displays) Cancel
Meet the Views Interface: Format

**TITLE**
Title: demotest

**FORMAT**
Format: Jump menu | Settings
Show: Fields | Settings

**FIELDS**
Content: Title

**FILTER CRITERIA**
Content: Published (Yes)
Content: Type (= Staff member)

**SORT CRITERIA**
Content: Title (desc)

**PAGE SETTINGS**
Path: /demotest
Menu: No menu
Access: Permission | View public

**HEADER**

**FOOTER**

**PAGER**
Use pager: Full | Paged, 10 items
More link: No
Meet the Views Interface: Add Field

Add fields

For: All displays

Search Filter: All

- Content: (Meta)Description
  Appears in: node:article, node:page, node:bulletin, node:event, node:feature_box, node:missionary, node:media, node:small_group, node:staff. Also known as: Content: Description metatag for search engines, Content: (Meta)Description.

- Content: Description metatag for search engines
  This is an alias of Content: (Meta)Description.

- Content: Above-form teaser
  Appears in: node:webform.

- Content: Add comment link
  Display the standard add comment link used on regular nodes, which will only display if the viewing user has access to add a comment.

- Content: Affiliation
  Appears in: node:missionary.

- Content: All taxonomy terms
  Display all taxonomy terms associated with a node from specified vocabularies.

- Content: Approximate meeting time
  Appears in: node:small_group.

- Content: Author uid
  The user authoring the content. If you need more fields than the uid add the content: author relationship

- Content: Body
  Appears in: node:page, node:article, node:feature_box, node:event, node:missionary, node:media, node:small_group, node:staff, node:bulletin, node:webform. Also known as: Content: Body. Content: One, sentence summary that will show in
John Smith is the lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Garbage in, Garbage Out

Now what do after you have a zillion pages, when the designer asks you to put the contact information **AFTER** the body paragraph?
Garbage in, Garbage Out

Now what do after you have a zillion pages, when the designer asks you to put the contact information **AFTER** the body paragraph?
Garbage in, Garbage Out

Name: John Smith
Position: Director of Smithing
Phone: (555) 555-1234
Email: jsmith@fakemail.com
Body: John Smith is the ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
Garbage in, Garbage Out

Name
Position
Phone • Email
Body

THIS TAKES 30 SECONDS
Garbage in, Garbage Out #2

**Title:** John Smith  
**Team:** Smithing

**Title:** Jane Doe  
**Team:** Smelting

**Title:** John Doe  
**Team:** Smithies and Smelting
Garbage in, Garbage Out #2

“Hey Web Developer, can I have a page that only shows people on my team? Sorry about all the typos in the database, by the way”
“Hey Web Developer, can I have a page that only shows people on my team? Sorry about all the typos in the database, by the way”

Text field = **BAD**

Taxonomy field (or Entity Reference) = **Good**
Garbage in, Garbage Out: Some Questions

- Should this be content or a user?

- Would a more precise field type help me?
  - Numeric?
  - Link?
  - Taxonomy term?
  - Email? (Module)
  - Date? (Module)

- Should this data even be in this node?
  - Entity reference module to associate nodes
Meet the Views Interface: Add Field

Add fields

For: All displays

Search

Filter: All

- Content: (Meta)Description
  Appears in: node:article, node:page, node:bulletin, node:event, node:feature_box, node:missionary, node:media, node:small_group, node:staff. Also known as: Content: Description metatag for search engines, Content: (Meta)Description.

- Content: Description metatag for search engines
  This is an alias of Content: (Meta)Description.

- Content: Above-form teaser
  Appears in: node:webform.

- Content: Add comment link
  Display the standard add comment link used on regular nodes, which will only display if the viewing user has access to add a comment.

- Content: Affiliation
  Appears in: node:missionary.

- Content: All taxonomy terms
  Display all taxonomy terms associated with a node from specified vocabularies.

- Content: Approximate meeting time
  Appears in: node:small_group.

- Content: Author uid
  The user authoring the content. If you need more fields than the uid add the content: author relationship

- Content: Body
  Appears in: node:page, node:article, node:feature_box, node:event, node:media, node:missionary, node:small_group, node:staff, node:bulletin, node:webform. Also known as: Content: Body. Content: One, sentence summary that will show in
Meet the Views Interface: Edit Field

Configure field: Content: Title

For: All displays

The content title.

- **Create a label**
  Enable to create a label for this field.

- **Exclude from display**
  Enable to load this field as hidden. Often used to group fields, or to use as token in another field.

- **Link this field to the original piece of content**
  Enable to override this field's links.

› STYLE SETTINGS

› NO RESULTS BEHAVIOR

› REWRITE RESULTS

› MORE

Apply (all displays)  Cancel  Remove
Meet the Views Interface: Edit Field

**Configure field: Content: Title**

For: All displays

The content title.

**STYLE SETTINGS**

- **Customize field HTML**
- **HTML element**
  - H3
  - Choose the HTML element to wrap around this field, e.g. H1, H2, etc.
- **Create a CSS class**
- **CSS class**
  - best_class_ever
  - You may use token substitutions from the rewriting section in this class.
- **Customize label HTML**
- **Customize field and label wrapper HTML**
- **Add default classes**
  - Use default Views classes to identify the field, field label and field content.

Apply (all displays)  Cancel  Remove
Meet the Views Interface: Edit Field

**NO RESULTS BEHAVIOR**

No results text

Provide text to display if this field contains an empty result. You may include HTML. You may enter data from this view as per the "Replacement patterns" in the "Rewrite Results" section below.

- **Count the number 0 as empty**
  
  Enable to display the "no results text" if the field contains the number 0.

- **Hide if empty**
  
  Enable to hide this field if it is empty. Note that the field label or rewritten output may still be displayed. To hide labels, check the style or row style settings for empty fields. To hide rewritten content, check the "Hide rewriting if empty" checkbox.

- **Hide rewriting if empty**
  
  Do not display rewritten content if this field is empty.
Meet the Views Interface: Edit Field

REWRITE RESULTS

- Rewrite the output of this field

Enable to override the output of this field with custom text or replacement tokens.

Text

This is my [title]. And this is some <a href="http://zombo.com">HTML</a>.

The text to display for this field. You may include HTML. You may enter data from this view as per the "Replacement patterns" below.

Output this field as a link

If checked, this field will be made into a link. The destination must be given below.

REPLACEMENT PATTERNS

The following tokens are available for this field. Note that due to rendering order, you cannot use fields that come after this field; if you need a field not listed here, rearrange your fields. If you would like to have the characters ']' and ']' please use the html entity codes %5B or %5D or they will get replaced with empty space.

- [title] == Content: Title
Meet the Views Interface: Edit Field
### Meet the Views Interface: Column 2

<table>
<thead>
<tr>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title: demotest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format: Jump menu</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Show: Fields</th>
<th>Settings</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>FIELDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content: Title</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FILTER CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content: Published (Yes)</td>
</tr>
<tr>
<td>Content: Type (= Staff member)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SORT CRITERIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content: Title (desc)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAGE SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path: /demotest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Menu: No menu</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Access: Permission</th>
<th>View published content</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>HEADER</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>FOOTER</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>PAGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use pager: Full</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>More link: No</th>
</tr>
</thead>
</table>
Stretch!

Iz on mah break
Vote!

What do we want to see?

1. News list
2. Staff directory
3. Replace a node’s content with a view of itself
4. Calendar
5. Podcast
Live Unscripted Demo Time
Advanced Stuff: Contextual Filters

Contextual filters let you tweak your filters based on context...

Commonly used to customize how a node displays its fields (e.g., use a view AS part of the node’s content display)
Advanced Stuff: Contextual Filters

Add contextual filters

For: All displays

Search: nid

Filter: - All -

- Content: Nid
  The node ID.

- Content revision: Nid
  The revision NID of the content revision.

- Feeds item: Owner feed nid
  Argument on Feed Items by the Feed they were generated from using the Node Id of the Feed Node.

- Feeds log: Feed node id
  Argument on a Feeds Source's feed_nid field.

- Feeds source: Feed node id
  Argument on a Feeds Source's feed_nid field.

Selected: Content: Nid

Apply (all displays)  Cancel
Advanced Stuff: Contextual Filters

Configure contextual filter: Content: Nid

For: All displays

The node ID.
This display does not have a source for contextual filters, so no contextual filter value will be available unless you select 'Provide default'.

WHEN THE FILTER VALUE IS NOT AVAILABLE

- Display all results for the specified field
- Provide default value

Type

- Fixed value
- Content ID from URL
- Taxonomy term ID from URL
- User ID from URL
- User ID from logged in user
- Display contents of "No results found"
- Display "Access Denied"

Skip default argument for view URL
Select whether to include this default argument when constructing the URL for this view. Skipping default arguments is useful e.g. in the case of feeds.

WHEN THE FILTER VALUE IS AVAILABLE OR A DEFAULT IS PROVIDED

Subscription rules...
Advanced Stuff: Contextual Filters

Does Life Have a Purpose?

Topic: Explore God
Speaker: Pastor Matt Ristuccia
Date: Sunday, Jan. 26
Advanced Stuff: Relationships

Relationships let you dive through a sibling...

So if you have a contextual filter to the current node, you could display titles of all nodes with the same keywords as the that node. Magic!
"No Results Behavior" tells Drupal what to do with an empty view.
Advanced Stuff: Exposed Form

Lets you change the text of the submit button and expose things like sort order...
Advanced Stuff: Use AJAX

AJAX with Views is... complicated.

Test it. You lose the ability to bookmark the query, and it can make exposed forms act unpredictably.
Advanced Stuff: Use Aggregation

Aggregation lets you add up fields. So you could show the SUM of all the rows in the result instead of the individual value.
Views comes with a basic time-based cache (hours).

Many helper modules offer other options, but small sites can ignore this...

“Views Content Cache” is my favorite...
Give your view a custom class.

<table>
<thead>
<tr>
<th>Advanced</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTEXTUAL FILTERS</td>
<td></td>
</tr>
<tr>
<td>RELATIONSHIPS</td>
<td></td>
</tr>
<tr>
<td>NO RESULTS BEHAVIOR</td>
<td></td>
</tr>
<tr>
<td>EXPOSED FORM</td>
<td></td>
</tr>
<tr>
<td>Exposed form style: Basic</td>
<td>Settings</td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
<tr>
<td>Machine Name: block</td>
<td></td>
</tr>
<tr>
<td>Comment: No comment</td>
<td></td>
</tr>
<tr>
<td>Use AJAX: No</td>
<td></td>
</tr>
<tr>
<td>Hide attachments in summary: No</td>
<td></td>
</tr>
<tr>
<td>Hide contextual links: No</td>
<td></td>
</tr>
<tr>
<td>Use aggregation: No</td>
<td></td>
</tr>
<tr>
<td>Query settings: Settings</td>
<td></td>
</tr>
<tr>
<td>Field Language: Current user's language</td>
<td></td>
</tr>
<tr>
<td>Caching: Content-based</td>
<td>Content cache</td>
</tr>
<tr>
<td>Link display: None</td>
<td></td>
</tr>
<tr>
<td>CSS class: None</td>
<td></td>
</tr>
<tr>
<td>Theme: Information</td>
<td></td>
</tr>
<tr>
<td>Block caching: Do not cache</td>
<td></td>
</tr>
</tbody>
</table>
Advanced Stuff: Theme Information

This gives you PHP to copy and tweak in a TPL file to theme your view.

That is another talk.
A final note: the Feeds module lets you ingest an RSS feed and populate a content type with its contents.

Once you do that, you can write views against and view your friend’s Nodes. Google “Drupal Feeds Module” to read all about it.
8,000+ D7 modules mention views. Some top ones are at: drupal.org/documentation/modules/views/add-ons

Some that saved my bacon on my last few projects:

- **Better Exposed Filters**: expose checkboxes for multiselect
- **Draggable Views**: drag rows to rearrange
- **Full Calendar**: pretty calendars with draggable events
- **Views Bulk Operations**: batch edit content
- **Views Field View**: embed a view in another view
- **File Field Podcaster**: create feeds iTunes can parse

I’m at jjameson@princeton.edu. Ping me.