

# A Visual Approach to Drupal's Lego Blocks: Page Manager and Panels

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**Drupal Camp Charlotte**

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## A photograph of a small LEGO minifigure standing on a yellow plate. The minifigure has a yellow head, a black vest with a white graphic, and blue pants. It is holding a blue piece in its right hand. Surrounding the minifigure are various loose LEGO bricks and plates: a green plate, a black plate, a white plate, a red plate, a blue plate, and several long white and black bricks. The background is a solid blue surface.

# 2

# Think of Drupal as LEGOs®

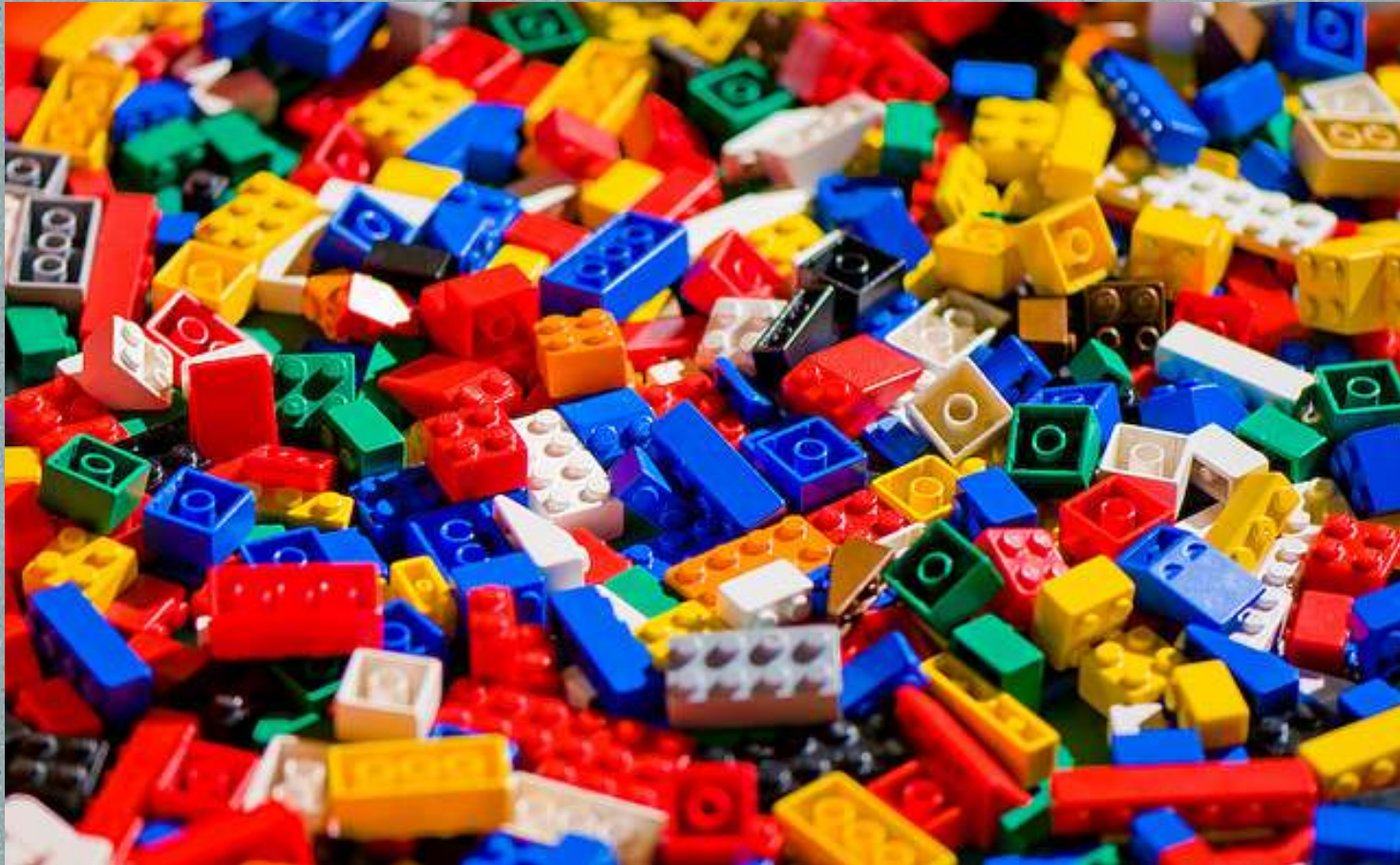
**“Drupal is a lot like legos, any one can play with it, but it takes time to master it and understand how the pieces fit together. And it can take time to learn the pieces.”**

**Steve (nevets) Ringwood**

<http://drupal.org/node/1595414>

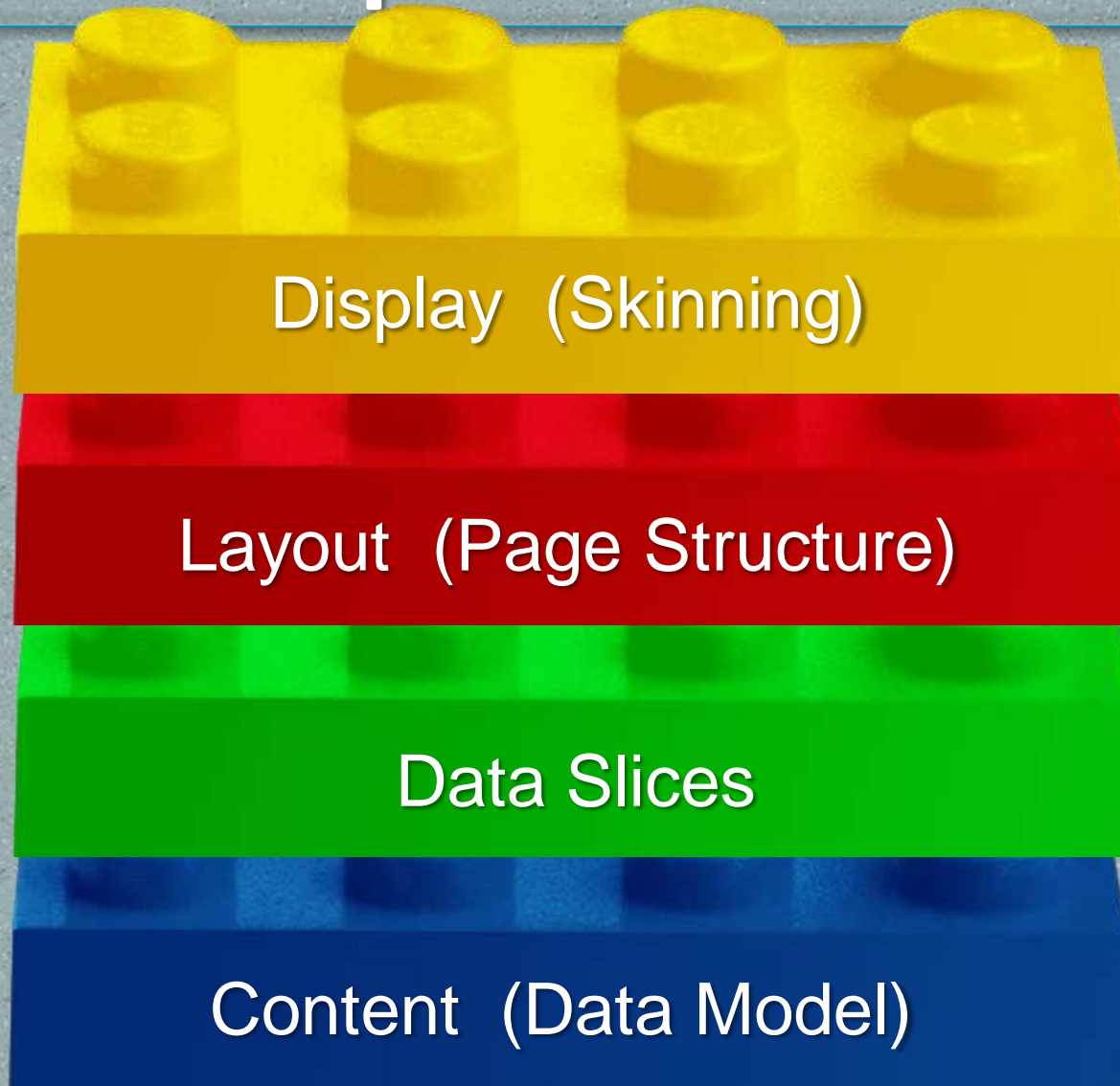


# Think of Drupal as LEGOs®



Source: <http://www.flickr.com/photos/ejpphoto/2314610838>

# Think of Drupal as LEGOs®

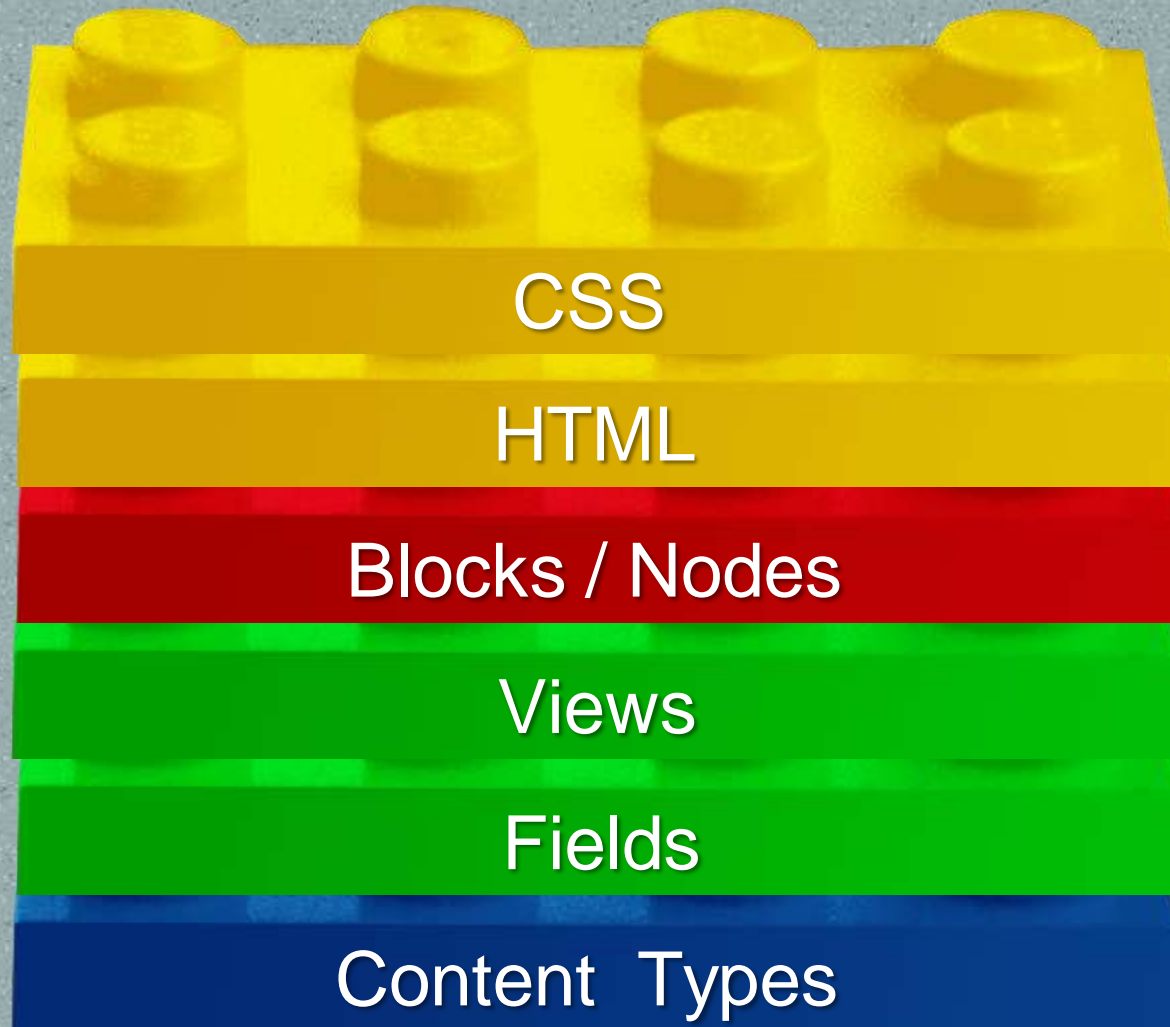


Source: <http://drupalwatchdog.com/1/2/stacking-up-drupal>





# Think of Drupal as LEGOs®



Source: <http://drupalwatchdog.com/1/2/stacking-up-drupal>

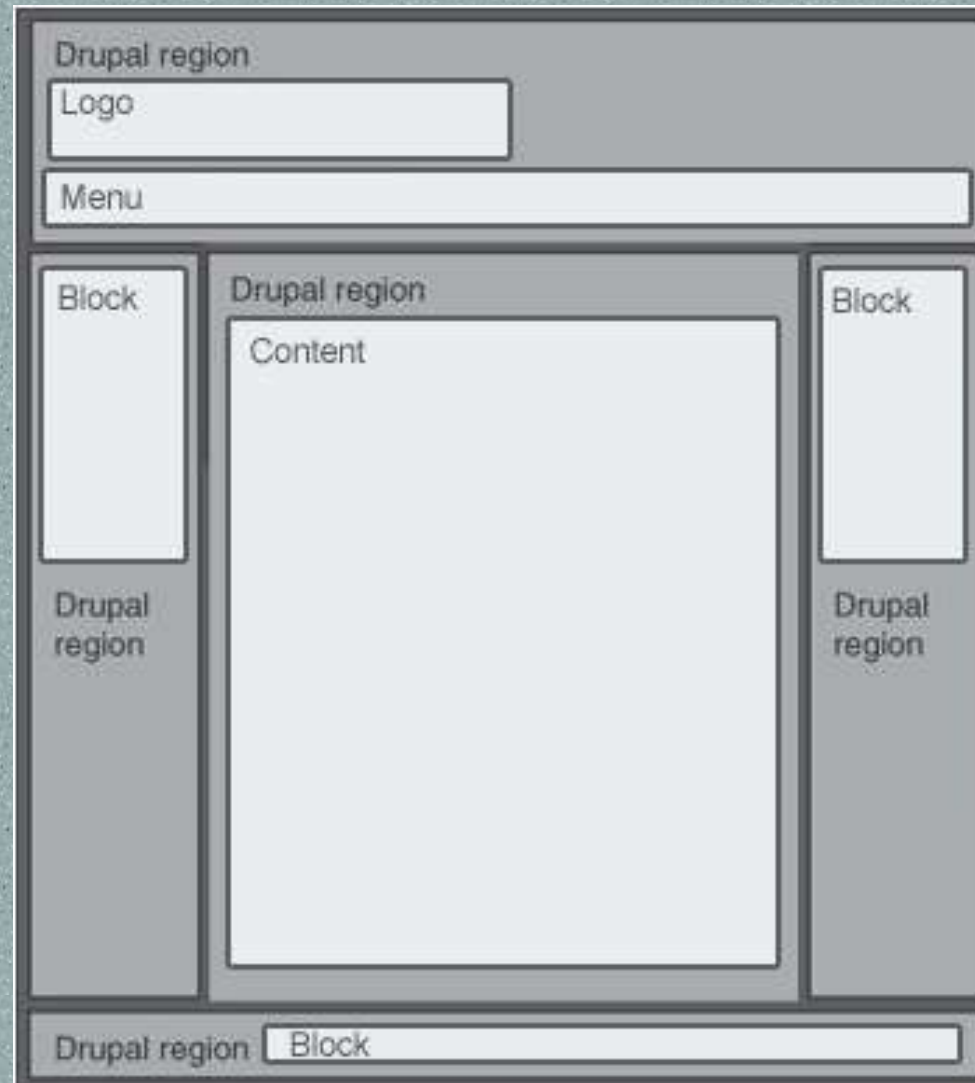


# Definition

## Theme:

A combination of HTML markup, CSS, JavaScript and PHP logic to present Drupal's displayable output. Manages the layout and design elements of content.

# Typical Drupal core layout



Source: Drupal's Building Blocks: Quickly Building Web Sites with CCK, Views, and Panels, by Earl Miles & Lynette Miles (Addison-Wesley Professional, 2010)



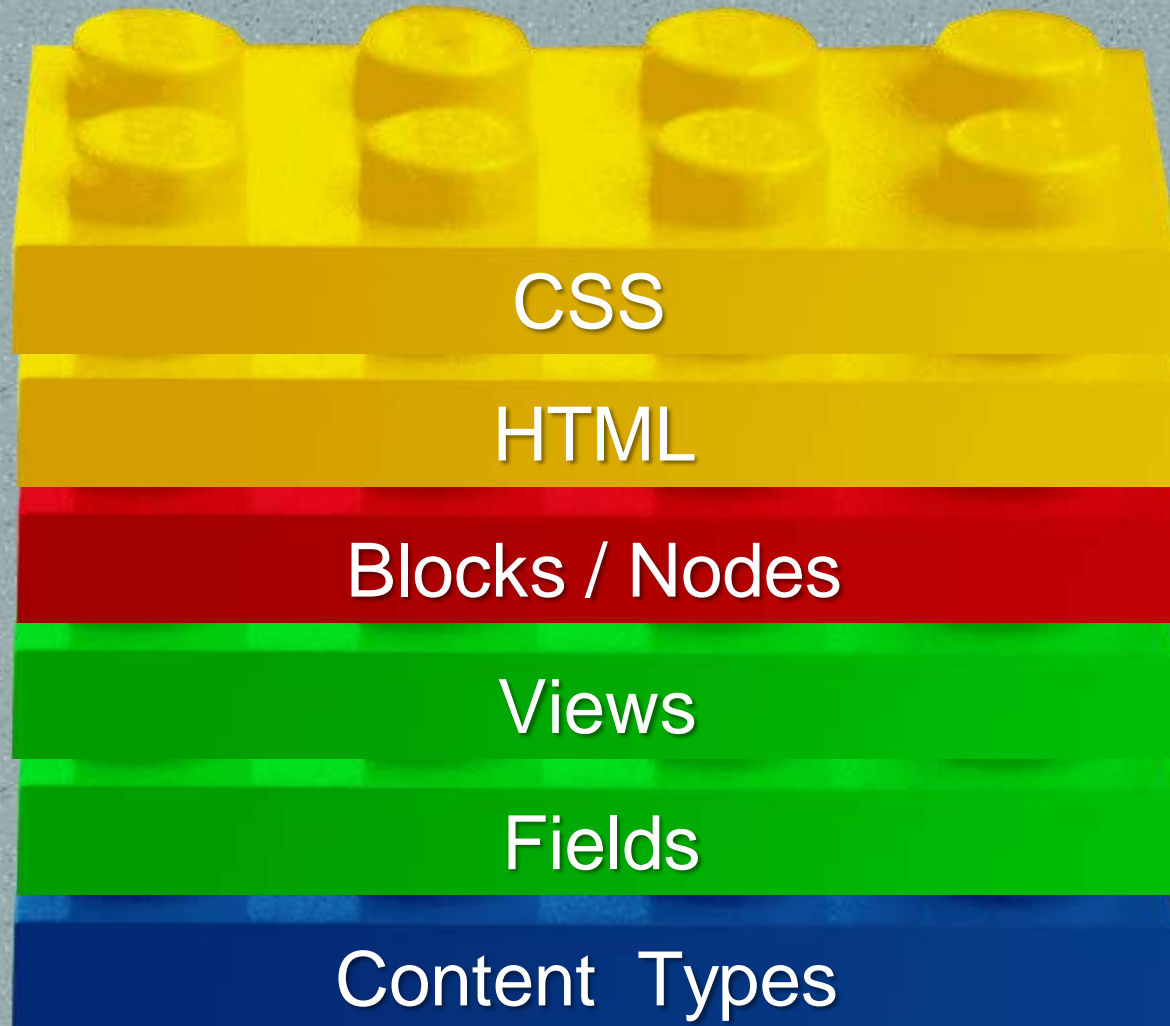


# Typical Drupal core layout



**All regions  
managed by theme  
template files**

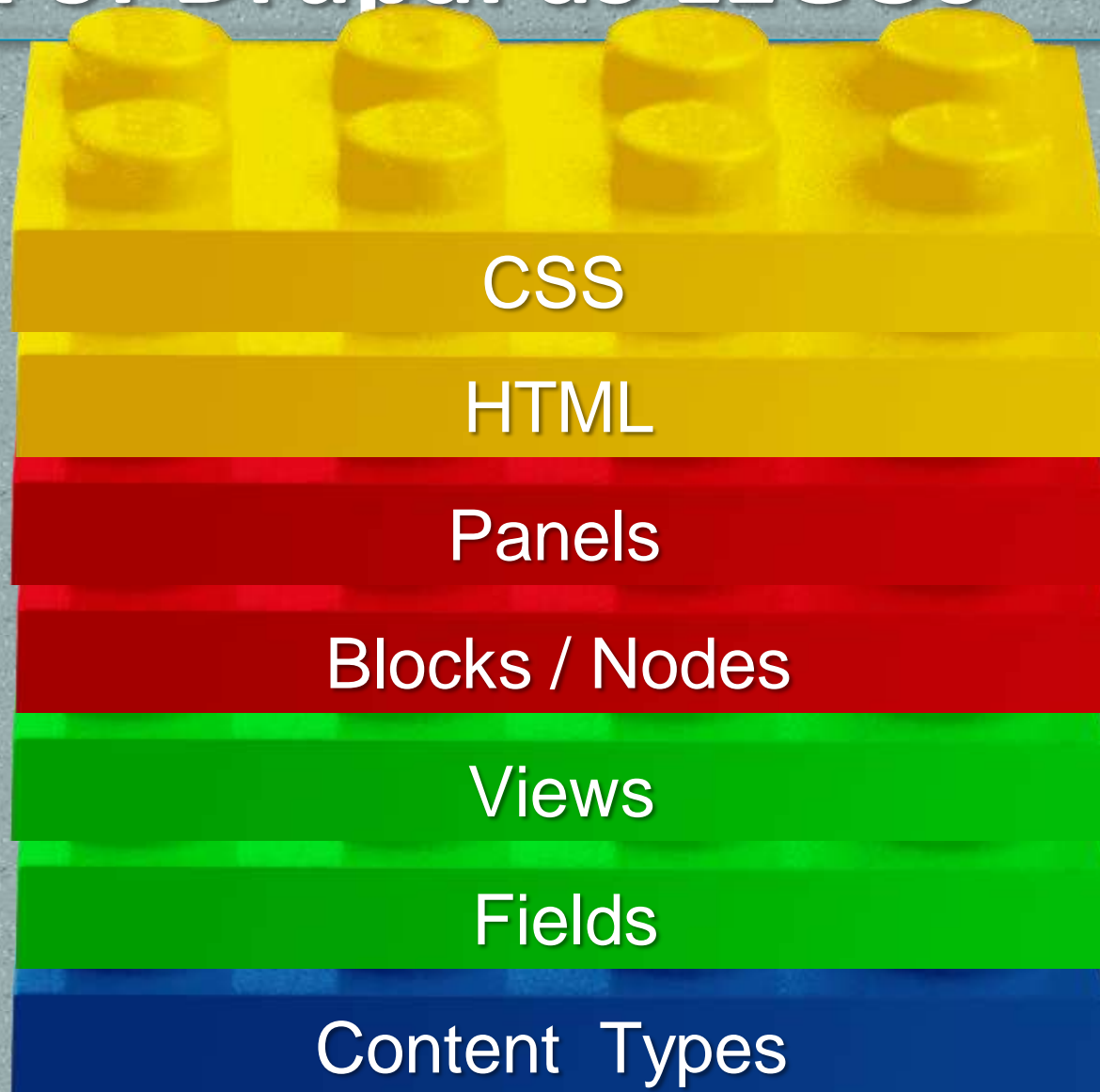
# Think of Drupal as LEGOs®



Source: <http://drupalwatchdog.com/1/2/stacking-up-drupal>



# Think of Drupal as LEGOs®





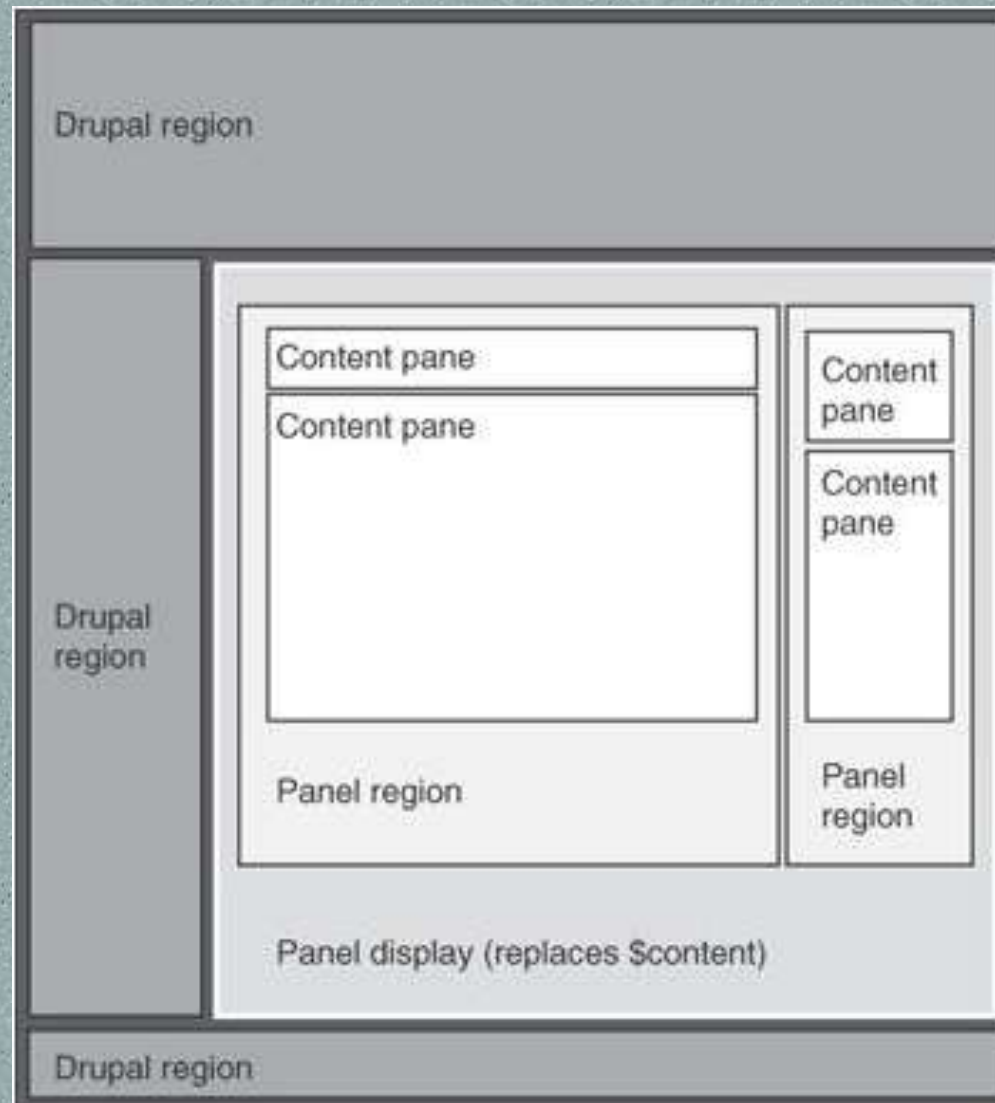
# Definition

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## **Panels:**

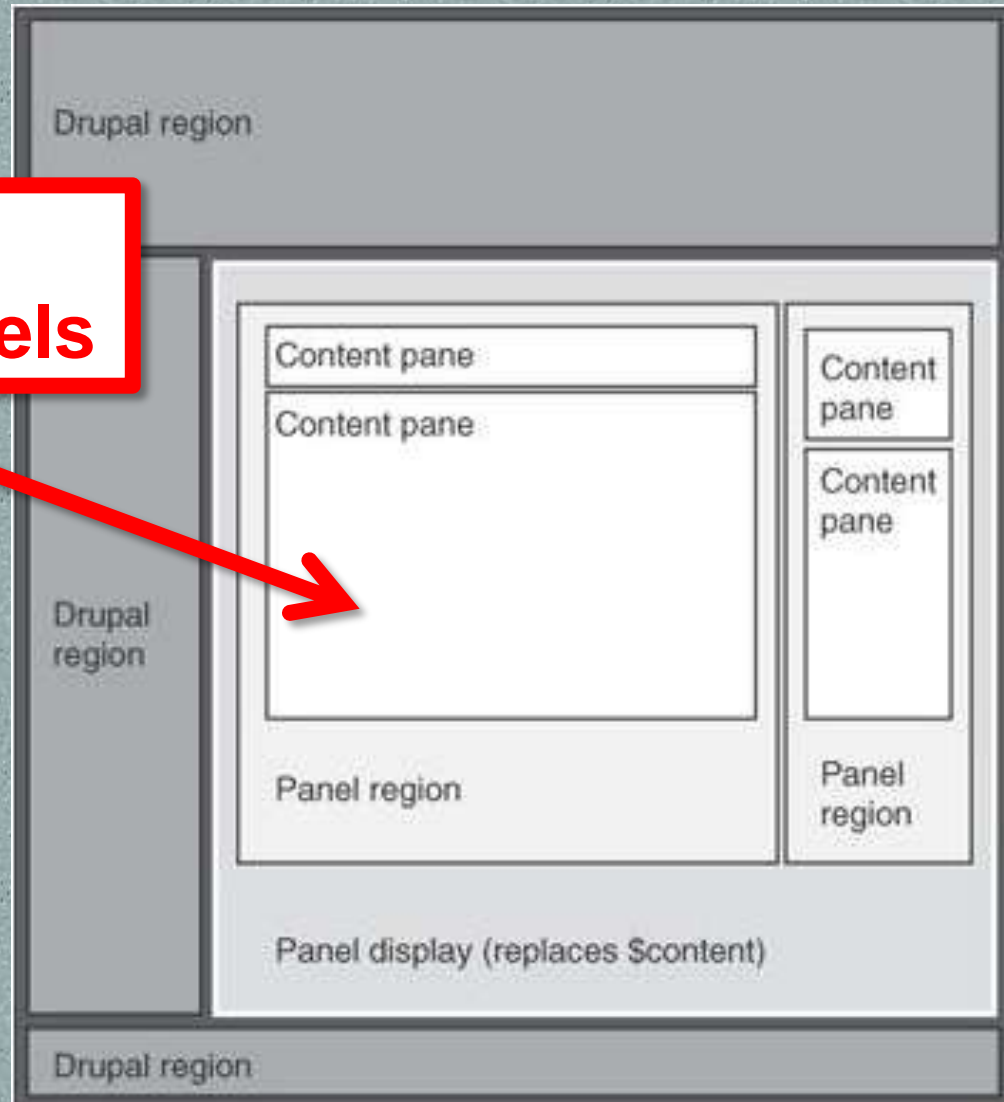
A contributed module that provides a method of managing blocks, nodes, menus and forms. Provides layout control that extends outside of a theme.

# Typical Panels layout



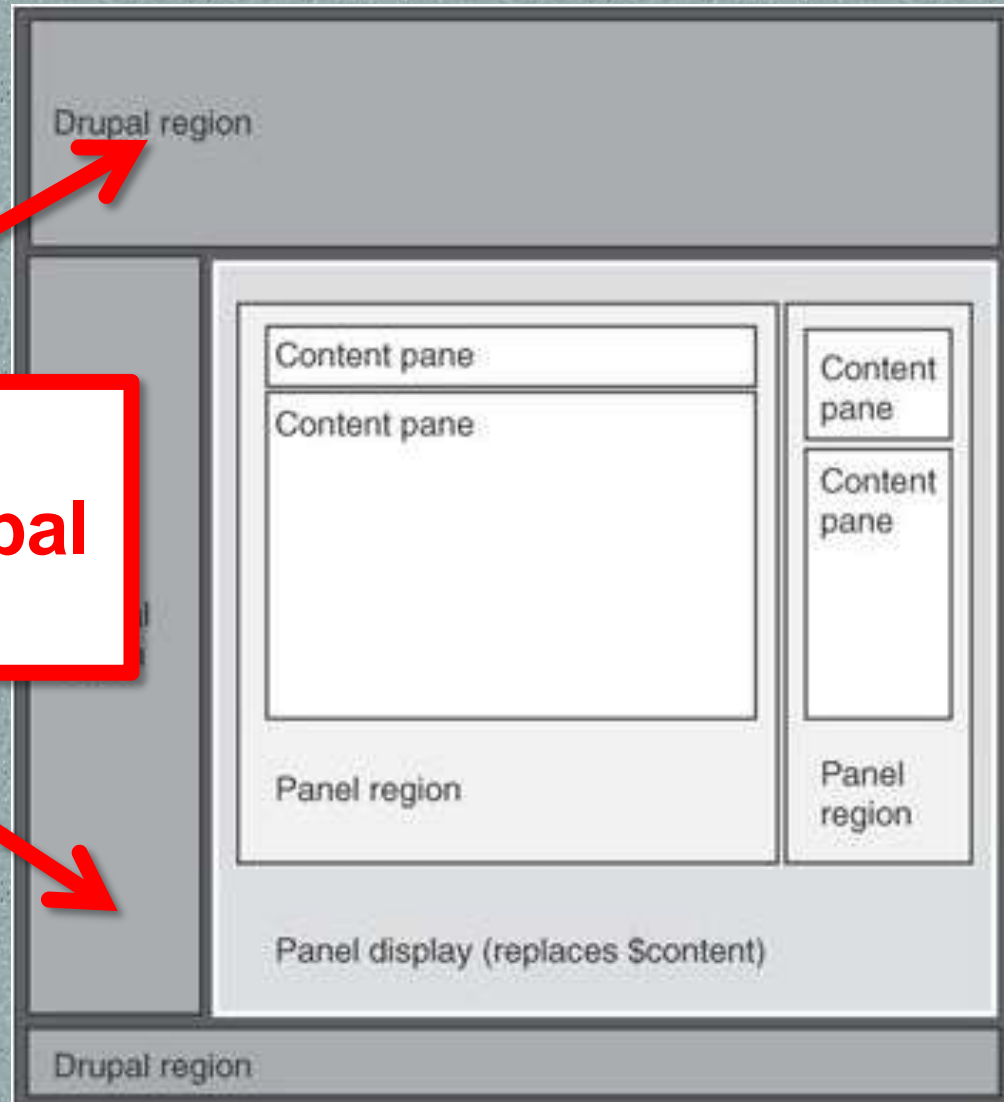
# Typical Panels layout

**Content region  
managed by Panels**





# Typical Panels layout



**Other regions  
managed by Drupal  
core**

# Definition

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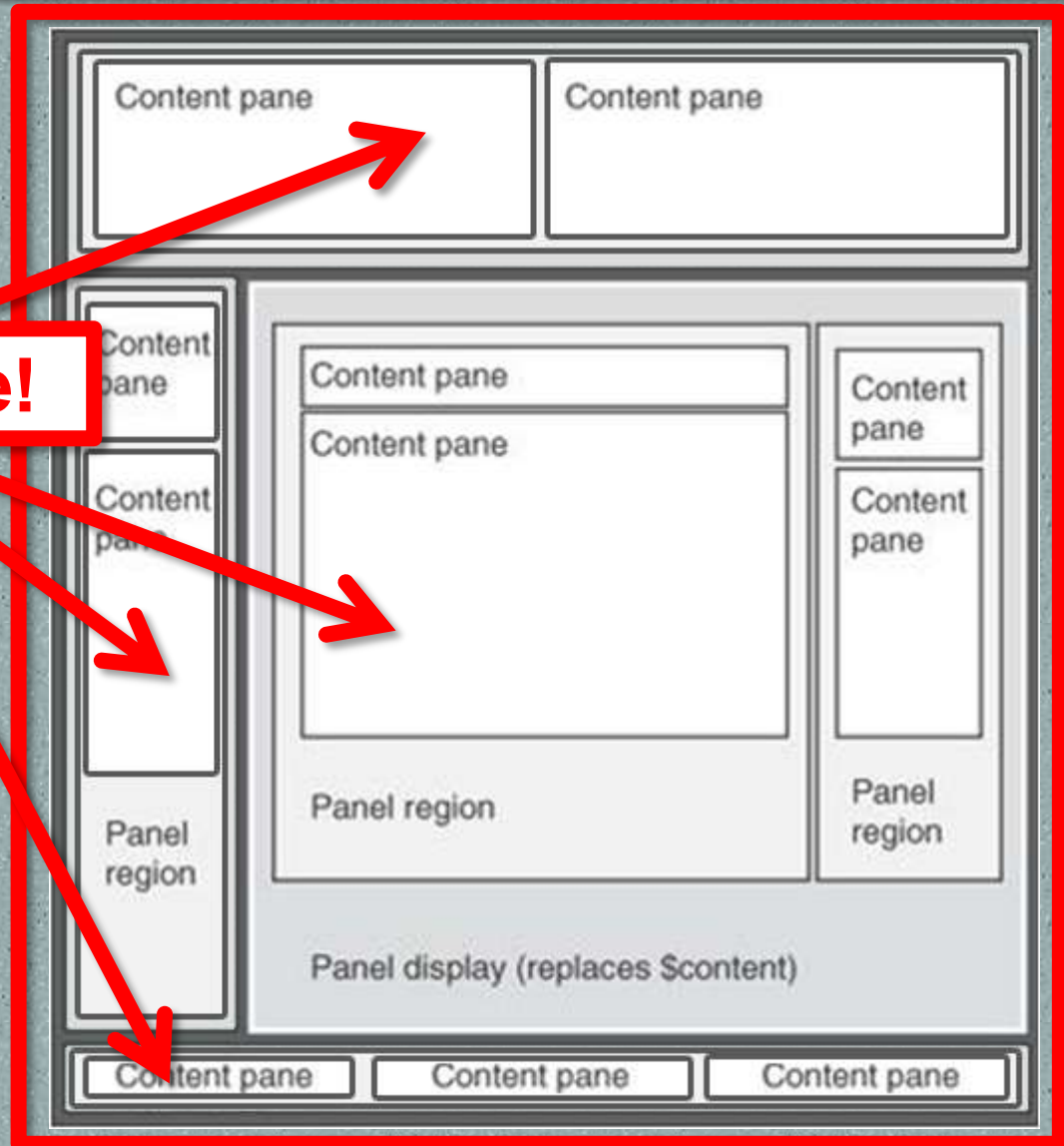
## **Panels Everywhere:**

A contributed module that controls every section of a page layout.

Overrides Drupal's core block system and portions of the layout system managed by themes.

# Panels Everywhere layout

**Yes, everywhere!**





# Definition

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## **Views:**

A contributed module that provides a graphical interface to create database queries that filter and sort nodes, users and comments into customized page and block content.

# Themes vs. Panels

## Themes

- Required

## Panels

- Not required

# Themes vs. Panels

## Themes

- Required
- Contains logic for displaying content regions; must be written by the themer

## Panels

- Not required
- Contains logic for display content regions in the module; no code to write



# Themes vs. Panels

## Themes

- Required
- Contains logic for displaying content regions; must be written by the themer
- Multiple layouts are cumbersome to manage; require separate template files

## Panels

- Not required
- Contains logic for display content regions in the module; no code to write
- Multiple layouts are easier to manage; no additional template files required

# Themes vs. Panels

## Themes

- No UI to visualize layout

## Panels

- Provides a visual UI

# Themes vs. Panels

## Themes

- No UI to visualize layout
- Requires some programming knowledge to change layouts

## Panels

- Provides a visual UI
- No programming knowledge required for layout changes



# Themes vs. Panels

## Themes

- No UI to visualize layout
- Requires some programming knowledge to change layouts
- Requires core block system or Context module to manage blocks

## Panels

- Provides a visual UI
- No programming knowledge required for layout changes
- Manages blocks; with Panels Everywhere all regions are managed

# Blocks vs. Panels

## Blocks

- All blocks are rendered, even those not needed on a page (D6 only)

## Panels

- Only blocks needed for a page are rendered

# Blocks vs. Panels

## Blocks

- All blocks are rendered, even those not needed on a page (D6 only)
- Caching for all blocks managed by single core system

## Panels

- Only blocks needed for a page are rendered
- Pluggable caching mechanism provides granular control for blocks



# Panels

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**Provides a drag-and-drop  
interface for managing layouts**

**Provides contextual control  
over regions**

# Panels Everywhere

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**Extends Panels to all page regions, eliminating most need for core block system**

**Can eliminate need for custom layout files**

# Mini-Panels

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## Mini-Panels:

Embeddable, reusable panels that can contain panes.



# Mini-Panel Example

## Panes within a pane



Maryville and Greeneville will defend state titles in high school football, while Powell and CAK chase their first-ever championships in Blue Cross Bowl games in Cookeville.

► [Read More](#)



Take your camera to the game, then share your photos at Pix@WATE.com.

► [View Photos](#)



Students collect food and monetary donations for Second Harvest Food Bank.

► [Read More](#)



Follow [@6FNH](#) and be sure to use the hash tag [#6FNH](#) in your tweets from the game!

### Playoff Week 4: Two for Sure



Friday, November 25, 2011

After 10 regular season games and three weeks of playoff games, just seven teams from the WATE viewing area are still standing. From this point, the only thing we can be certain of is that at least two will play for a state title.

► [Read More](#)



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### CURRENT WEATHER

Knoxville, Tenn.

- Scattered clouds
- Temperature: 69.8°F
- Wind: Southwest, 5.8 mph
- Rel. Humidity: 40%



► [Latest 6 Storm Team Forecast](#)

# Problem with Panels

## Complex UI!

# Definition

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## **Page Manager:**

A contributed module that manages page types (not to be confused with content types), especially Panels pages.



# Page Manager

**Think of Page Manager as a  
redirect machine.**

It evaluates contextual settings and  
applies them as needed. It can override  
paths and create new paths.

# Definition

## **CTools:**

A collection of contributed modules and APIs, including Page Manager. CTools is required for the installation of Views and Panels, and provides functionality both modules share.

# More of What CTools Provides

- Custom content panes
- Bulk export of data objects
- Stylizer for custom pane styles

# Definition

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## **Variant:**

Logic, permissions and layout settings that determine whether or not a page will be rendered and how the page will be rendered.

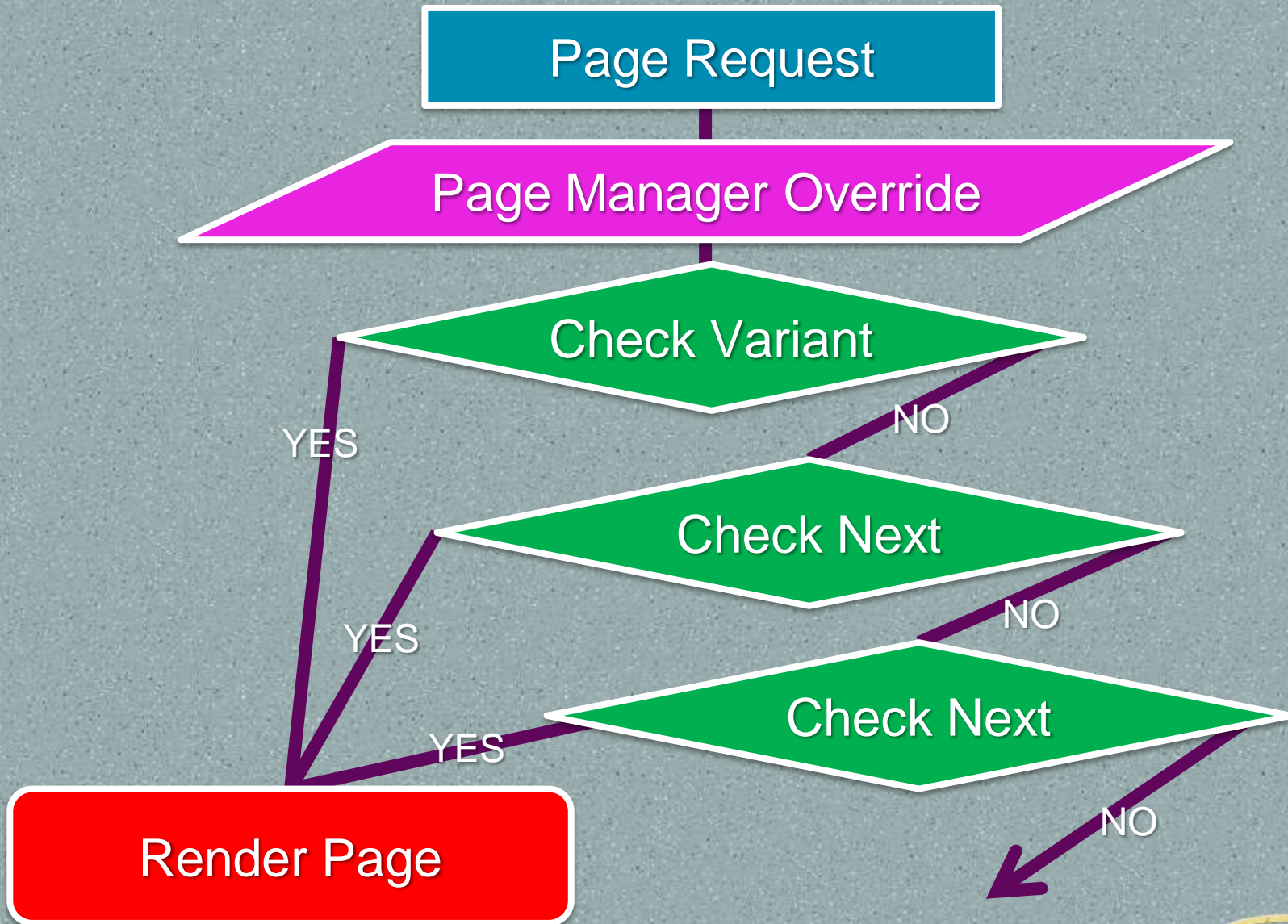


# Variant

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**The variant order is important because Page Manager checks the variants in that order and uses the first one that applies.**

# Variant



# Definition

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## **Selection Rule:**

A filter to tell Drupal if the variant should be applied.

# Definition

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## Context:

An arbitrary selection given to a variant to narrow its selection rule down to a single item.



# Definition

## Argument:

Like a placeholder or wildcard, this allows a range of content to be included in a context. The argument is taken from the URL and expressed with a %, such as /user/%.

# Definition

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## **Relationship:**

Content that is in some way connected to the content being viewed. Examples include other articles written by the same author and content that shares the same taxonomy term.



Source: <http://www.flickr.com/photos/gozalewis/3329507901>





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