

Magento 2

as a CMS



Who am I?



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Magento addict



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@MariusStrajeru



<http://magento.stackexchange.com/users/146/marius>



<https://github.com/tzyganu>



<https://github.com/UltimateModuleCreator>

Summary

- What is Magento (2) ?
- Can Magento 2 be a CMS?
- Possible approaches
- Problems of the approaches
- Solutions to the problems
- Example - Make Magento a blog
- Q&A

What is Magento (2)?



e-commerce software

What is Magento (2)?

 e-commerce software

 a framework

What is Magento (2)?

 e-commerce software

 a framework


 AWESOME

What is Magento (2)?

 e-commerce software

 a framework

 AWESOME

 a CMS

What is Magento (2)?

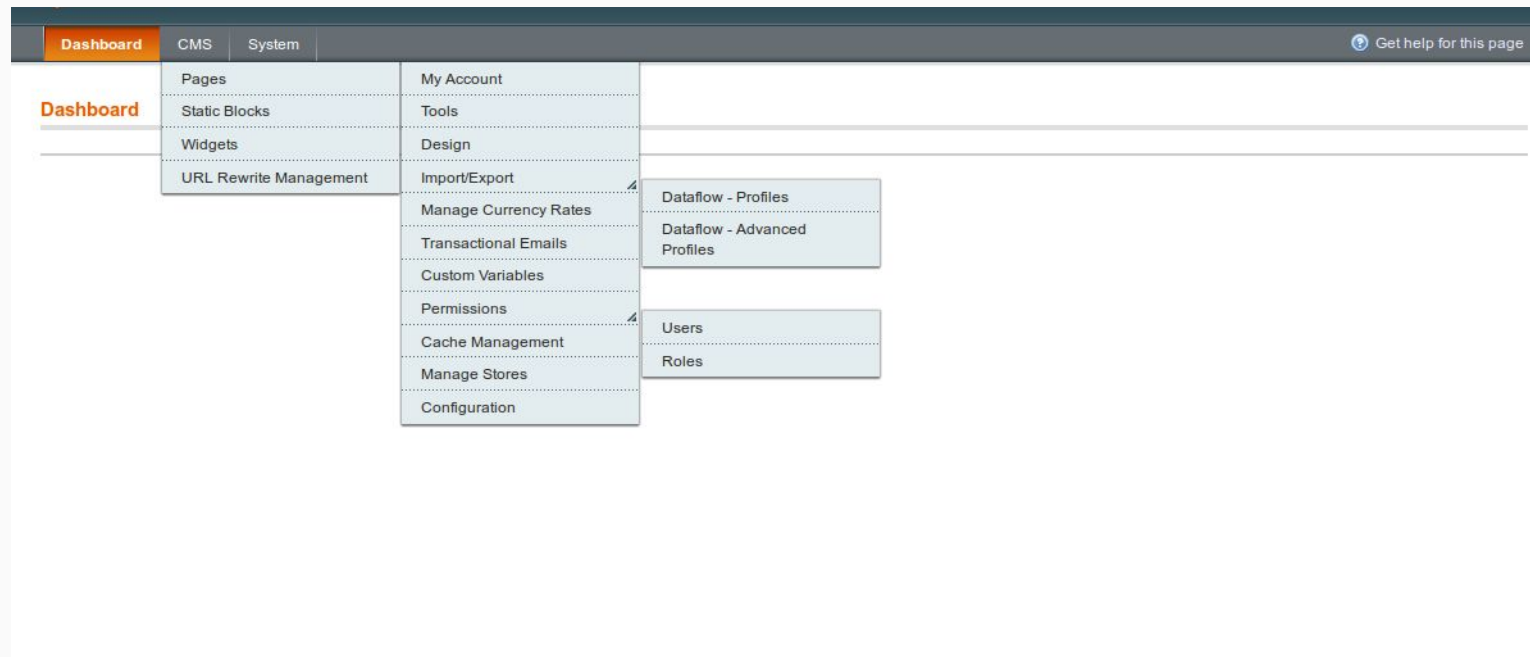
- ✔ e-commerce software
- ✔ a framework
- ✔ AWESOME
- ✔ a CMS - “open-source **content management system** for e-commerce web sites” - [Wikipedia](#)

What is Magento (2)?

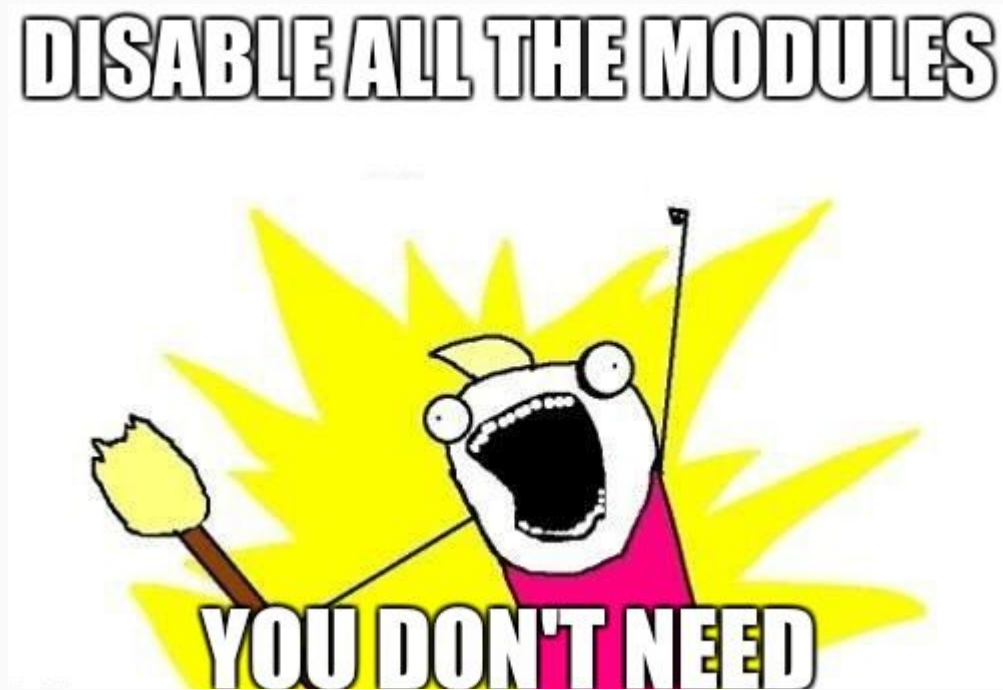
- ✔ e-commerce software
- ✔ a framework
- ✔ AWESOME
- ❓ a CMS - “open-source **content management system** for ~~e-commerce~~ web sites”

The idea...is not new

<https://github.com/colinmollenhour/magento-lite>



The idea...is simple



The idea

- Disable e-commerce modules: Catalog, Checkout, Sales, ...

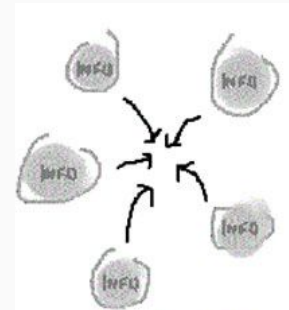
But...

- Troubles because of tight coupling.
- Big fat Mage_Adminhtml
- Big fat Mage_Core
- Should Customers be removed?

Magento2 as a CMS

Magento 2 has:

- composer
- loose coupling
- Magento_Framework
- No more hard dependencies
- DI (no more Mage::getModel() calls)
- **It should be easy, right?**



Magento2 as a CMS

Magento 2 has:

- composer
- loose coupling
- Magento
- No more dependencies
- DI (no more `Mage::getModel()` calls)
- **It should be easy, right?**



Thumbs up



Back

Next

Advanced Modules Configurations

☐ Select All

☐ Magento_SendFriend

☒ Magento_Shipping

☐ Magento_Sitemap

☒ Magento_Store

☐ Magento_Swagger

☐ Magento_Swatches

☒ Magento_Tax

☐ Magento_TaxImportExport

☒ Magento_Theme

☒ Magento_Translation

☒ Magento_UI

54 out of 100 selected

Thumbs down

YEAH....that won't work

- dependent modules
- dependencies not declared
- bugs in the declared dependencies:
 - [#1296](#), [#1579](#), [#1291](#)
- circular dependencies
- dependencies that should not be there.

Magento to the rescue

- `php bin/magento info:dependencies:show-modules`

	A	B	C	D
1		All	Hard	Soft
2	Total number of dependencies	648	631	17
3				
4	Dependencies for each module:	All	Hard	Soft
5	<u>magento/module-catalog-widget</u>	8	8	0
6	-- <u>magento/module-catalog</u>		1	0
7	-- <u>magento/module-widget</u>		1	0
8	-- <u>magento/module-backend</u>		1	0
9	-- <u>magento/module-rule</u>		1	0
10	-- <u>magento/module-eav</u>		1	0
11	-- <u>magento/module-customer</u>		1	0
12	-- <u>magento/module-store</u>		1	0
13	-- <u>magento/module-wishlist</u>		1	0
14				
15	<u>magento/module-email</u>	5	5	0
16	-- <u>magento/module-config</u>		1	0
17	-- <u>magento/module-store</u>		1	0
18	-- <u>magento/module-cms</u>		1	0
19	-- <u>magento/module-backend</u>		1	0
20	-- <u>magento/module-variable</u>		1	0
21				
22	<u>magento/module-directory</u>	3	3	0
23	-- <u>magento/module-config</u>		1	0
24	-- <u>magento/module-store</u>		1	0
25	-- <u>magento/module-backend</u>		1	0
--				

Magento to the rescue

- `php bin/magento info:dependencies:show-modules-circular`

1	Circular dependencies:
2	
3	
4	Circular dependencies for each module:
5	<u>magento/module-catalog</u>
6	<u>magento/module-catalog->magento/module-store->magento/module-catalog</u>
7	<u>magento/module-catalog->magento/module-eav->magento/module-store->magento/module-media-storage->magento/module-backe</u>
8	<u>magento/module-catalog->magento/module-eav->magento/module-catalog</u>
9	<u>magento/module-catalog->magento/module-cms->magento/module-theme->magento/module-customer->magento/module-catalog</u>
10	<u>magento/module-catalog->magento/module-cms->magento/module-catalog</u>
11	<u>magento/module-catalog->magento/module-customer->magento/module-sales->magento/module-catalog</u>
12	<u>magento/module-catalog->magento/module-customer->magento/module-checkout->magento/module-catalog-inventory->magento/r</u>
13	<u>magento/module-catalog->magento/module-customer->magento/module-theme->magento/module-widget->magento/module-catalog</u>
14	<u>magento/module-catalog->magento/module-customer->magento/module-review->magento/module-catalog</u>
15	<u>magento/module-catalog->magento/module-customer->magento/module-tax->magento/module-catalog</u>
16	<u>magento/module-catalog->magento/module-customer->magento/module-quote->magento/module-catalog</u>
17	<u>magento/module-catalog->magento/module-checkout->magento/module-catalog</u>
18	<u>magento/module-catalog->magento/module-wishlist->magento/module-catalog</u>
19	<u>magento/module-catalog->magento/module-tax->magento/module-checkout->magento/module-shipping->magento/module-catalog</u>

What can be disabled - shop related

Magento_AdminNotification

Magento_AdvancedPricingImportExport

Magento_Authorizenet

Magento_Braintree

Magento_BraintreeTwo

Magento_Bundle

Magento_BundleImportExport

Magento_Captcha

Magento_Catalog

Magento_CatalogImportExport

Magento_CatalogInventory

Magento_CatalogRule

Magento_CatalogRuleConfigurable

Magento_CatalogSearch

Magento_CatalogUrlRewrite

Magento_CatalogWidget

Magento_Checkout

Magento_CheckoutAgreements

Magento_ConfigurableImportExport

Magento_ConfigurableProduct

Magento_CurrencySymbol

Magento_Dhl

Magento_Downloadable

Magento_DownloadableImportExport

Magento_Fedex

Magento_GiftMessage

Magento_GoogleAdwords

Magento_GoogleOptimizer

Magento_GroupedImportExport

Magento_GroupedProduct

Magento_LayeredNavigation

Magento_Marketplace

Magento_Msrp

Magento_Multishipping

Magento_OfflinePayments

Magento_OfflineShipping

Magento_Payment

Magento_Paypal

Magento_Persistent

Magento_ProductAlert

Magento_ProductVideo

Magento_Quote

Magento_Reports

Magento_Review

Magento_Rule

Magento_Sales

Magento_SalesRule

Magento_SalesSequence

Magento_SampleData

Magento_SendFriend

Magento_Shipping

Magento_Swatches

Magento_TaxImportExport

Magento_Ups

Magento_Usps

Magento_Vault

Magento_Weee

Magento_Wishlist

Magento_Contact

Magento_Deploy

Magento_Developer

Magento_EncryptionKey

Magento_GoogleAnalytics

Magento_ImportExport

Magento_Indexer

Magento_Integration

Magento_NewRelicReporting

Magento_Newsletter

Magento_PageCache

Magento_Rss

Magento_Search

Magento_Swagger

Magento_Widget

Magento_Customer

Magento_CustomerImportExport

Magento_Tax

What can be disabled - if you think you don't need

Magento_AdminNotification

Magento_AdvancedPricingImportExport

Magento_Authorizenet

Magento_Braintree

Magento_BraintreeTwo

Magento_Bundle

Magento_BundleImportExport

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Magento_Search

Magento_Swagger

Magento_Widget

Magento_Customer

Magento_CustomerImportExport

Magento_Tax

What can be disabled - make it minimal

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Magento_BraintreeTwo

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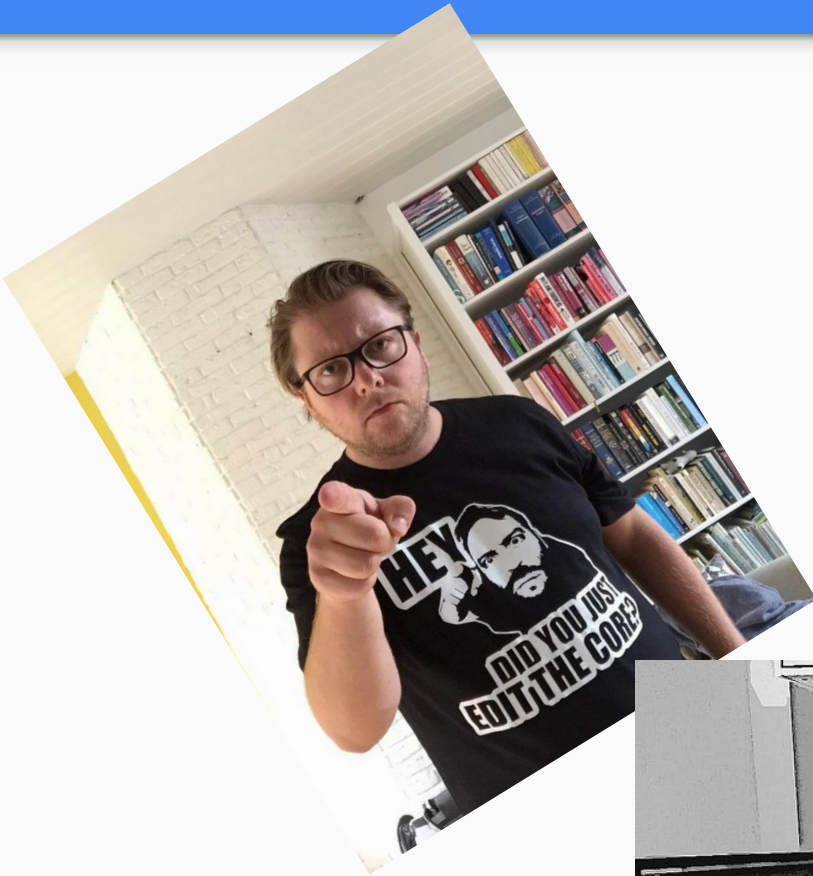
Second degree issues

- Admin menu troubles - parent menus are removed
- System->configuration missing parent sections
- User permissions missing parent elements
- setup:di:compile - throws errors
- URL rewrite module troubles

How I did it.

How I did it

How I did it. - YES!!! I admit it



How I did it - Core edits (bow head in shame).

- \Magento\Setup\Controller\Modules::allModulesValidAction()
 - return new JsonModel(['success' => true]); - to skip composer.json parsing and dependency check
- app/code/Magento/Eav/etc/di.xml

```
<type name="Magento\Eav\Model\EavCustomAttributeTypeLocator">
  <arguments>
    <argument name="serviceEntityTypeMap" xsi:type="array">
      <item name="Magento\Catalog\Api\Data\ProductInterface" xsi:type="const">Magento\Catalog\Api\Data\ProductAttributeInterface::ENTITY_TYPE_CODE</item>
    </argument>
    <argument name="serviceBackendModelDataInterfaceMap" xsi:type="array">
      <item name="Magento\Catalog\Api\Data\ProductInterface" xsi:type="array">
        <item name="Magento\Catalog\Model\Product\Attribute\Backend\Media" xsi:type="string">Magento\Catalog\Api\Data\ProductAttributeMediaGalleryEntryInterface</item>
      </item>
    </argument>
  </arguments>
</type>
```

How I did it

Keep the following files from disabled modules:

- \Magento\Reports\Model\ResourceModel\Report\AbstractReport
 - \Magento\Tax\Model\ResourceModel\Report\Tax\Createdat extends it
- \Magento\Catalog\Api\Data\EavAttributeInterface
 - referenced in \Magento\Customer\Model\Attribute
- \Magento\Catalog\Model\Product\ReservedAttributeList
 - referenced in \Magento\Customer\Model\Attribute
 - referenced in \Magento\Eav\Model\Entity

How I did it - Magecms_Driver module

- etc/di.xml
 - change the model used by reservedAttributeList

```
<type name="Magento\Catalog\Model\Product\ReservedAttributeList">
    <arguments>
        <argument name="productModel" xsi:type="string">Magento\Framework\Model\AbstractExtensibleModel</argument>
        <argument name="reservedAttributes" xsi:type="array">
            <item name="position" xsi:type="string">position</item>
        </argument>
    </arguments>
</type>
```

- copy dependencies wrongly declared in the Catalog module

```
<type name="Magento\Framework\Model\OrchestratorPool">
    <arguments>
        <argument name="operations" xsi:type="array">
            <item name="default" xsi:type="array">
                <item name="read" xsi:type="object">Magento\Framework\Model\Operation\Read</item>
                <item name="create" xsi:type="object">Magento\Framework\Model\Operation\Write\Create</item>
                <item name="update" xsi:type="object">Magento\Framework\Model\Operation\Write\Update</item>
                <item name="delete" xsi:type="object">Magento\Framework\Model\Operation\Write\Delete</item>
            </item>
        </argument>
    </arguments>
</type>
```

How I did it - Magecms_Driver module

- etc/di.xml

- make the Tax module setup do nothing

```
<preference for="Magento\Tax\Setup\TaxSetup" type="Magecms\Driver\Setup\Tax\TaxSetup" />
<preference for="Magento\Tax\Setup\InstallData" type="Magecms\Driver\Setup\Tax\InstallData" />
<preference for="Magento\Tax\Setup\UpgradeData" type="Magecms\Driver\Setup\Tax\UpgradeData" />
```

- \Magecms\Driver\Setup\Tax\InstallData::install() - does nothing
 - \Magecms\Driver\Setup\Tax\UpgradeData::upgrade() - does nothing
 - \Magecms\Driver\Setup\Tax\TaxSetup
 - remove dependency on `Magento\Sales\Setup\SalesSetupFactory` and `Magento\Catalog\Model\ProductTypes\ConfigInterface`
 - add dependency `Magento\Eav\Setup\EavSetupFactory`
 - getTaxableItems() returns empty array
 - `addAttribute` and `updateAttribute` use `eavSetup` instead of `salesSetup`

How I did it - Magecms_Driver module

- etc/di.xml
 - Change tax helper to remove sales reference

```
<preference for="Magento\Tax\Helper\Data" type="Magecms\Driver\Helper\Tax\Data" />
```

- change Google analytics block to remove sales reference

```
<preference for="Magento\GoogleAnalytics\Block\Ga" type="Magecms\Driver\Block\GoogleAnalytics\Ga" />
```

- change login block to remove reference to checkout

```
<preference for="Magento\Customer\Block\Form\Login\Info" type="Magecms\Driver\Block\Customer\Form\Login\Info" />
```

- remove category select from store add/edit

```
<preference  
    for="Magento\Backend\Block\System\Store>Edit\Form\Group"  
    type="Magecms\Driver\Block\Backend\System\Store>Edit\Form\Group" />
```

How I did it - Magecms_Driver module

- etc/adminhtml/menu.xml
 - add some items that were in a disabled module

```
<config xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="urn:magento:module:Magento_Backend:etc/menu.
    <menu>
        <add id="Magento_Reports::report" title="Reports" module="Magento_Reports" sortOrder="60" resource="Magento_Reports::report"/>
        <add id="Magento_Reports::report_marketing" title="Marketing" module="Magento_Backend" sortOrder="10" parent="Magento_Reports::re
        <remove id="Magento_Backend::marketing_user_content" />
        <remove id="Magento_Backend::stores_attributes" />
    </menu>
</config>
```

- etc/adminhtml/di.xml
 - add some plugins to handle the orphan menu items and config sections

```
<?xml version="1.0"?>
<config xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="urn:magento:framework:ObjectManager/etc/config.xsd">
    <type name="Magento\Config\Model\Config\Structure\Element\Iterator">
        <plugin name="magecms-driver-config-structure-iterator-data" type="Magecms\Driver\Plugin\Config\Structure\Element\Iterator" sortOrder="100" />
    </type>
    <type name="Magento\Integration\Helper\Data">
        <plugin name="magecms-driver-intergration-data" type="Magecms\Driver\Plugin\Integration\Data" sortOrder="100" />
    </type>
    <type name="Magento\Customer\Block\Adminhtml\Edit\OrderButton">
        <plugin name="magecms-driver-customer-order-button" type="Magecms\Driver\Plugin\Customer\Block\Adminhtml\Edit\OrderButton" sortOrder="100" />
    </type>
</config>
```

How I did it - Magecms_Driver module

- view/adminhtml/layout/adminhtml_dashboard_index.xml

- remove all blocks from admin dashboard


```
<?xml version="1.0"?>
<layout xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:noNamespaceSchemaLocation="urn:magento:framework:View/Layout/etc/layout_generic.xsd">
    <referenceBlock name="dashboard" remove="true" />
    <referenceBlock name="store_switcher" remove="true" />
    <referenceBlock name="refresh_statistics" remove="true" />
</layout>
```


- view/frontend/layout/customer_account_create|login.xml


- remove checkout references


```
<?xml version="1.0"?>
<layout xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:noNamespaceSchemaLocation="urn:magento:framework:View/Layout/etc/layout_generic.xsd">
    <referenceBlock name="form_additional_info_customer" remove="true"/>
</layout>
```



Example - Blog





DASHBOARD


BLOG

CUSTOMERS



MARKETING

CONTENT

STORES


SYSTEM

Dashboard

root ▾

Interface Locale

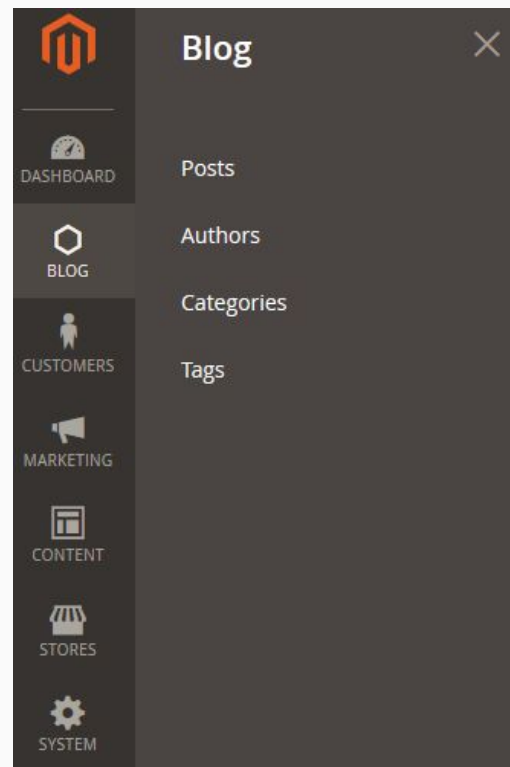
English (United States) / English (United States) ▾

 **Magento** ver. 1.0.0-beta

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[Report Bugs](#)

Example - Blog



Example - Blog

Reset
Save Category

Add Root Category

Add Child Category

Collapse All | Expand All



- News
- Sports
 - Footbal
 - Rugby

New Root Category


Category information	Posts	Meta
<p>Name * <input type="text"/></p> <p>URL Key <input type="text"/></p> <p>Description * Show / Hide Editor</p> <div style="border: 1px solid #ccc; margin-top: 5px; min-height: 100px;"> <!-- Rich text editor toolbar --> <div style="background-color: #fff; border-bottom: 1px solid #ccc; padding: 5px;"> </div> <div style="height: 80px;"></div> </div> <p>Path: p</p>		

Example - Blog


Authors


  root ▾

Add New Author

Search by keyword 

Filters

 Default View ▾

 Columns ▾

Select Items ▾

3 records found


20 ▾ per page

<

1

of 1

>

	ID ▾	Name	URL Key	Is Active	Action
<input type="checkbox"/>	1	John Doe	john-doe	Yes	Select ▾
<input type="checkbox"/>	2	Jane Doe	jane-doe	Yes	Select ▾
<input type="checkbox"/>	3	Marius Strajeru	marius-strajeru	Yes	Select ▾

Example - Blog

Posts

  root ▾

Add New Post

Search by keyword



 Filters

 Default View ▾

 Columns ▾

Select Items ▾

1 records found

20 ▾ per page

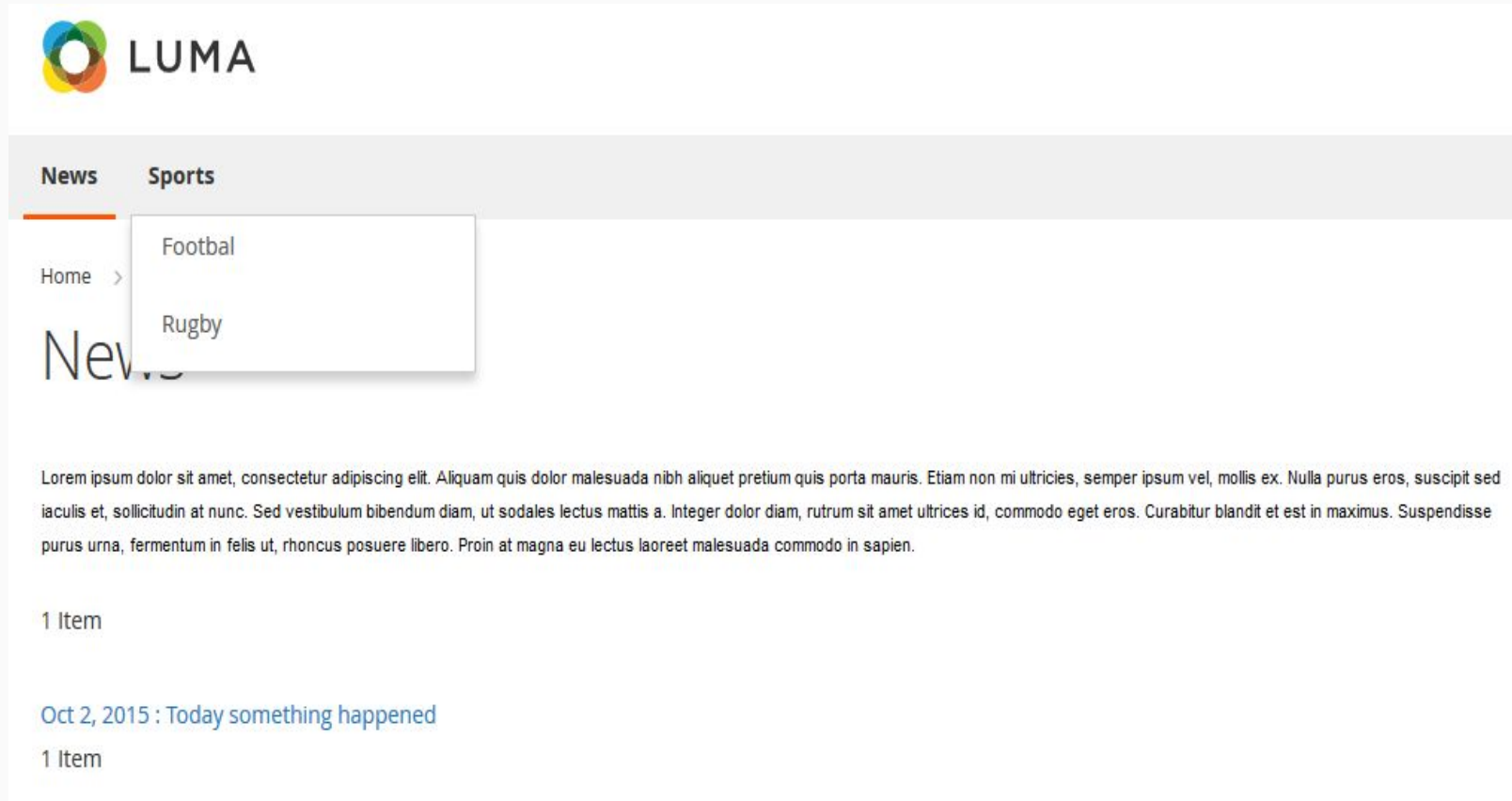


1 of 1



	ID ▾	Author	Title	URL Key	Publication Date	Action
<input type="checkbox"/>	1	John Doe	Today something happened	today-something-happened	Oct 2, 2015 12:00:00 AM	Select ▾

Example - Blog



News Sports

Home > Today something happened

Today something happened

Publication date: Friday, October 2, 2015

Author: [John Doe](#)

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aliquam quis dolor malesuada nibh aliquet pretium quis porta mauris. Etiam non mi ultricies, semper ipsum vel, mollis ex. Nulla purus eros, suscipit sed iaculis et, sollicitudin at nunc. Sed vestibulum bibendum diam, ut sodales lectus mattis a. Integer dolor diam, rutrum sit amet ultrices id, commodo eget eros. Curabitur blandit et est in maximus. Suspendisse purus urna, fermentum in felis ut, rhoncus posuere libero. Proin at magna eu lectus laoreet malesuada commodo in sapien. Nunc arcu sem, aliquet eu feugiat quis, rhoncus a enim. Maecenas volutpat massa ac vehicula tristique. Vivamus condimentum mauris quis sapien blandit, ac viverra magna auctor. Morbi commodo ligula a dolor sodales lobortis. Nunc sodales ut odio nec dignissim. In imperdiet ex in commodo laoreet. Quisque vel lacus vitae neque pulvinar sagittis. Aenean eu dictum est. Aenean vitae lacus at lacus placerat pulvinar vitae ut arcu. Integer a sollicitudin diam. Integer a mauris facilisis, sagittis velit vel, tincidunt odio. Aenean ac lorem convallis, ornare lorem sed, ullamcorper massa. Integer tempor feugiat justo, vel euismod enim faucibus vitae. Aliquam erat volutpat. Aliquam eu ante finibus, placerat lorem eget, dapibus libero. Aliquam vitae condimentum est. Maecenas aliquam pellentesque pretium. Maecenas eget purus at leo varius elementum vitae ac neque. Pellentesque vulputate nunc non augue congue egestas. Sed ut laoreet ex. Vivamus pulvinar elit ac maximus semper.

Categories

[Football](#), [News](#)

Q&A

Wait...

FAQ

- No I did not turn Magento 2 into Wo*****ss.
- The blog was just an example, it can easily be:
 - media website
 - presentation website
 - back-office application
- Even if I did, what would you rather write code on? Magento or “you know what”.