**Check list**

0. Share github

- Practice <https://devdocs.magento.com/guides/v2.2/extension-dev-guide/attributes.html>

- Practice <https://devdocs.magento.com/guides/v2.2/howdoi/customize_product.html>

- Practice <https://devdocs.magento.com/guides/v2.2/howdoi/checkout/checkout_overview.html>

- Finish the blog module (front-end, backend, friendly URL, comment form/email, approval reminder)

**1. How to join tables in Magento 2?**

collection

**2. How to filter by an attribute? Filter by a normal field ? Sort order ? Add more attribute / fields to collection ?**

- filter attribute (filterSearch)

- filter filed (filterRange(filterInput,filterSelect))

-sort order

- attribute / fields (columns or filter)

**3. How to get data from request (get/post) in correct way in magento 2 ?**

- In a case of a controller that extends Magento\Framework\App\Action\Action, it is possible to get the request with the aid of $this->getRequest()->getPost().

- For a custom class, inject the request in the constructor:

<?php

namespace Namespace\Module\Something;

class ClassName

{

protected $request;

public function \_\_construct

( \Magento\Framework\App\Request\Http $request,

....//rest of parameters here

)

{

$this->request = $request;

...//rest of constructor here

}

public function getPost()

{

return $this->request->getPost();

}

}

**4. How to validate form data with JS (client side) and PHP (server side) in Magento 2?**

- step1: create a test form, the form is created as the attribute for validation.

- step2: accept javascript validation, please run the below script:

<script type="text/x-magento-init">

{

"#custom-form": {

"validation": {}

}

}

</script>

or you can make that operation directly in .html like this:

<form data-mage-init='{"validation": {}}' class="form" id="custom-form" method="post" autocomplete="off">

or

<script type="text/javascript">

require([

'jquery',

'mage/mage'

], function($){

var dataForm = $('#custom-form');

dataForm.mage('validation', {});

});

</script>

**5. How to initiate configuration for a component ?**

To run the Component Manager:

-Log in to the Magento Admin as an administrator.

-Click System > Web Setup Wizard. The following page displays.

-Click System Configuration.

-If you haven’t already done so, enter your [authentication keys](https://devdocs.magento.com/guides/v2.1/install-gde/prereq/connect-auth.html) in the provided fields.

The following figure shows an example if you *have* already entered your keys.

-Click Save Config.

-Click Component Manager and continue with [Manage your components](https://devdocs.magento.com/guides/v2.1/comp-mgr/module-man/compman-main-pg.html).

To upgrade Magento system software instead, see [Run System Upgrade](https://devdocs.magento.com/guides/v2.1/comp-mgr/upgrader/upgrade-start.html).

**6. What is VirtualType in di.xml? Can we use a data provider class implementation instead of VirtualType ?**

- VirtualType là một cách để chèn các phụ thuộc khác nhau vào các lớp hiện có mà không ảnh hưởng đến các lớp khác.

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