**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.

**7. What is the difference between custom EAV attributes and extension attributes**

Các thuộc tính EAV chỉ có sẵn cho 2 thực thể Sản phẩm Catalog và Khách hàng. Bạn không thể thêm EAV cho các thực thể khác, như Stock, Wishlist etc.

Ngoài ra, các thuộc tính EAV chỉ thể hiện các kiểu thuộc tính đơn giản, so với các thuộc tính mở rộng, có thể đại diện cho một số kiểu đối tượng tùy chỉnh với giao diện riêng

**8. How to customize UI component template?**

**-** Create a form with UI component file

- Add a fieldset with code block

- Create a file ...\Block\Adminhtml\Warehouse\Edit\Tab\Stock

- Set a template for this block throws a variable

- Create a file and implement HTML code to display in the fieldset.

**9. How to customize a JS component (any JS module or component UI JS) ?**

- To add a custom JS component (module), take the following steps:

1. Place the custom component source file in one of the following locations:
   * Your theme JS files: <theme\_dir>/web/js or <theme\_dir>/<VendorName>\_<ModuleName>/web/js. In this case the component is available in your theme and its [child themes](https://devdocs.magento.com/guides/v2.2/frontend-dev-guide/themes/theme-inherit.html).
   * Your module view JS files: <module\_dir>/view/frontend/web/js. In this case the component is available in all modules and themes (if your module is enabled).
2. Optionally, in the corresponding module or theme, create a requirejs-config.js configuration file, if it does not yet exist there and set path for your resource.