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List

Create a list with sorting, filtering, searching and pagination features.

About

New in 4.2.8

If you need to add sorting, filtering, pagination and searching features to the list, you can use `list` component. To create this `list`, you must add attribute `data-role="list"` to your element whose sub-elements need to be sorted and set required additional options with special attributes.

Sort by

Price ↑ Price ↓ Author ↑ Author ↓ Name ↑ Name ↓

Paints By:

When is the wedding
Gogen
$ 300M

Players in cards
Sezann
$ 250M

Three Studies of Lucian Freud
Bacon
$ 142M

Woman III
Kuning
$ 137M

```
<script>
function sortList(col, dir) {
    $('#paintings').data('list').sorting(col,dir,true)
}
</script>

<p class="text-center h3 text-light">Sort by</p>
<div class="d-flex flex-justify-center flex-wrap m-2">
    <button class="button m-1" onclick="sortList('painting-price','asc')">Price <span class="mif-arrow-up"></span></button>
    <button class="button m-1" onclick="sortList('painting-price','desc')">Price <span class="mif-arrow-down"></span></button>
    <button class="button m-1" onclick="sortList('painting-author','asc')">Author <span class="mif-arrow-up"></span></button>
    <button class="button m-1" onclick="sortList('painting-author','desc')">Author <span class="mif-arrow-down"></span></button>
    <button class="button m-1" onclick="sortList('painting-name','asc')">Name <span class="mif-arrow-up"></span></button>
    <button class="button m-1" onclick="sortList('painting-name','desc')">Name <span class="mif-arrow-down"></span></button>
    <div class="cell-md-4 mt-4">
        <select data-role="select" data-filter="false" data-prepend="Paints By:" data-on-change="$('#paintings').data('list').filter(this.value)">
            <option value="" selected>All</option>
            <option value="gogen">Gogen</option>
            <option value="sezann">Sezann</option>
            <option value="bacon">Bacon</option>
            <option value="klimt">Klimt</option>
            <option value="munk">Munk</option>
            <option value="picasso">Picasso</option>
        </select>
    </div>
</div>

<ul id="paintings"
    data-role="list"
    data-sort-class="painting-price"
    data-sort-dir="desc"
    data-cls-list="unstyled-list row flex-justify-center mt-4"
    data-cls-list-item="cell-sm-6 cell-md-4"
>
    <li>
        <figure class="text-center">
            <div class="img-container thumbnail">
                <img src="images/paintings/gogen.jpg" alt="Gogen, When is the wedding">
            </div>
            <figcaption class="painting-name">When is the wedding</figcaption>
            <figcaption class="painting-author text-bold">Gogen</figcaption>
            <figcaption class="painting-price" data-format="money">$ 300M</figcaption>
        </figure>
    </li>
    <li>
        <figure class="text-center">
            <div class="img-container thumbnail">
                <img src="images/paintings/sezann.jpg" alt="Sezann, Players in cards">
            </div>
            <figcaption class="painting-name">Players in cards</figcaption>
            <figcaption class="painting-author text-bold">Sezann</figcaption>
            <figcaption class="painting-price" data-format="money">$ 250M</figcaption>
        </figure>
    </li>
    <li>
        <figure class="text-center">
            <div class="img-container thumbnail">
                <img src="images/paintings/kuning.jpg" alt="Kunning, Woman III">
            </div>
            <figcaption class="painting-name">Woman III</figcaption>
            <figcaption class="painting-author text-bold">Bacon</figcaption>
            <figcaption class="painting-price" data-format="money">$ 137M</figcaption>
        </figure>
    </li>
    <li>
        <figure class="text-center">
            <div class="img-container thumbnail">
                <img src="images/paintings/klimt.jpg" alt="Klimt, Gold Adele">
            </div>
            <figcaption class="painting-name">Gold Adele</figcaption>
            <figcaption class="painting-author text-bold">Klimt</figcaption>
            <figcaption class="painting-price" data-format="money">$ 135M</figcaption>
        </figure>
    </li>
    <li>
        <figure class="text-center">
            <div class="img-container thumbnail">
                <img src="images/paintings/munk.jpg" alt="Munk, The Scream">
            </div>
            <figcaption class="painting-name">The Scream</figcaption>
            <figcaption class="painting-author text-bold">Munk</figcaption>
            <figcaption class="painting-price" data-format="money">$ 119M</figcaption>
        </figure>
    </li>
    <li>
        <figure class="text-center">
            <div class="img-container thumbnail">
                <img src="images/paintings/picasso.jpg" alt="Picasso, Nude, green leaves and bust">
            </div>
            <figcaption class="painting-name">Nude, green leaves and bust</figcaption>
            <figcaption class="painting-author text-bold">Picasso</figcaption>
            <figcaption class="painting-price" data-format="money">$ 106M</figcaption>
        </figure>
    </li>
</ul>
```

Create list

To create interactive list, add attribute `data-role="list"` to your html list element.

```
<ul data-role="list">
    ...
</ul>
```

External data

You can specify a external data for your list. External data must have a valid specified json structure. To set it, use attribute `data-source`.

```
<ul data-role="list" data-set="data/paintings.json"></ul>
```

External data structure

External data must have `header` block and block with `data`. Header must contains template for list items. Link to example json file.

```
{
  "template": "..."
  "data": [...]
}
```

Sorting

By default list sorter use `full inner text` of list item (tags are cleared) to sorting items. You can `clarify` this with set sub-element `class name` with attribute `data-sort-class="..."`.

To set sort direction use attribute `data-sort-dir="..."` . This attribute must be set into one of two values: `asc` or `desc` . By default, this attribute have a `asc` as value.

```
<ul data-role="list">
    <li><span class="num">3</span> item</li>
    <li><span class="num">1</span> item</li>
    <li><span class="num">2</span> item</li>
</ul>
```

Clarify

```
<ul data-role="list" data-sort-class="num">
    <li><span class="num">3</span> item</li>
    <li><span class="num">1</span> item</li>
    <li><span class="num">2</span> item</li>
</ul>
```

For right sorting specified fields (ex: formatted money, date), you can add attribute `data-format` to sorted items. You can use next formats to a field: `number` , `int` , `float` , `date` and `money` .

> This feature works in pair with a `data-sort-class="..."` attribute.

```
<ul id="paintings"
    data-role="list"
    data-sort-class="painting-price"
    data-sort-dir="desc"
>
    <li>
        <figure class="text-center">
            <div class="img-container thumbnail">
                <img src="images/paintings/gogen.jpg" alt="Gogen, When is the wedding">
            </div>
            <figcaption class="painting-name">When is the wedding</figcaption>
            <figcaption class="painting-author text-bold">Gogen</figcaption>
            <figcaption class="painting-price" data-format="money">$ 300M</figcaption>
        </figure>
    </li>
    ...
</ul>
```

You can change attributes `data-sort-class` and `data-sort-dir` at runtime to change list sorting.

Filtering

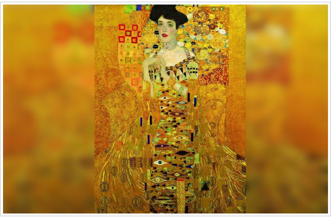
When you are use `list` component, you can set filters on list items. You can specify filtering functions when defining a component or at runtime, using special methods.

Specify filters at defining component

To set filters at defining component, you must use attributes `data-filter` and `data-filters` . Attribute `data-filter` set one filter, attribute `data-filters` set the number of filters. Value for the `data-filter` must be valid function name or javascript code, and for `data-filters` - comma separated functions name list.

Each filter receive a single parameter - `list HTML element` . Filter function must return `true` or `false` .

Three Studies of Lucian Freud
Bacon
$ 142M



Gold Adele
Klimt
$ 135M

```
<ul data-role="list"
    data-sort-class="painting-price"
    data-filter-class="painting-author"
    data-sort-dir="desc"
    data-cls-list="unstyled-list row flex-justify-center mt-4"
    data-cls-list-item="cell-sm-6 cell-md-4"
    data-source="data/paintings.json"
    data-filters="authorFilter, moneyFilter"
></ul>
<script>
    function authorFilter(item){
        var author = item.getElementsByClassName('painting-author')[0].textContent;
        return author.indexOf("Klimt") > -1 || author.indexOf("Bacon") > -1
    }
    function moneyFilter(item){
        return Metro.utils.parseMoney(item.getElementsByClassName('painting-price')[0].textContent) > 120;
    }
</script>
```

Searching

The `list` component support searching on the list items. The `searching` is a special case of filtration. To enable this function, you must set attribute `showSearch` to `true` (this case enable built in search input) and, if your need, set your one custom search wrapper with attribute `data-search-wrapper` .

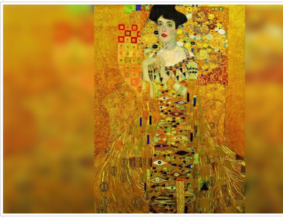
Built in search

Search:

When is the wedding
Gogen
$ 300M

Players in cards
Sezann
$ 250M

Three Studies of Lucian Freud
Bacon
$ 142M



Gold Adele
Klimt
$ 135M

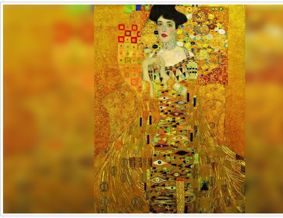
```
<ul data-role="list"
    data-sort-class="painting-price"
    data-filter-class="painting-author"
    data-sort-dir="desc"
    data-cls-list="unstyled-list row flex-justify-center mt-4"
    data-cls-list-item="cell-sm-6 cell-md-4"
    data-source="data/paintings.json"
    data-show-search="true"
></ul>
```

Your one search wrapper

When is the wedding
Gogen
$ 300M

Players in cards
Sezann
$ 250M

Three Studies of Lucian Freud
Bacon
$ 142M



Gold Adele
Klimt
$ 135M

Search:

```
<ul data-role="list"
    data-sort-class="painting-price"
    data-filter-class="painting-author"
    data-sort-dir="desc"
    data-cls-list="unstyled-list row flex-justify-center mt-4"
    data-cls-list-item="cell-sm-6 cell-md-4"
    data-source="data/paintings.json"
    data-search-wrapper=".my-search-wrapper"
    data-show-search="true"
></ul>
<div class="my-search-wrapper"></div>
```

Pagination

The `list` component also support `pagination` to display part of items at one time. To enable this function, you must set attribute `showPagination` to `true` (this case enable built pagination) and, if your need, set your one custom pagination wrapper with attribute `data-pagination-wrapper` . Also you can enable `item count block` with attribute `data-items-steps="true"` And you can enable `list items count info block` with attribute `data-show-info="true"` .

Show entries: 3

When is the wedding

Gogen

$ 300M

Players in cards

Sezann

$ 250M

Three Studies of Lucian Freud

Bacon

$ 142M

Showing 1 to 3 of 7 entries

Prev 1 2 3 Next

```
<ul data-role="list"
    data-sort-class="painting-price"
    data-filter-class="painting-author"
    data-sort-dir="desc"
    data-cls-list="unstyled-list row flex-justify-center mt-4"
    data-cls-list-item="cell-sm-6 cell-md-4"
    data-source="data/paintings.json"
    data-show-pagination="true"
    data-items="3"
    data-items-steps="all, 3, 5"
    data-show-items-steps="true"
    data-show-list-info="true"
></ul>
```

Options

You can setup behavior of your list with any options. To these options you can use special attributes.

Option	Data-*	Default	Desc
`sortClass`	`data-sort-class`		Class for sort source element. If you set this attribute, the sorter will use element with this class for sorting
`sortDir`	`data-sort-dir`		Direction for sorting. Must be `asc` or `desc`
`sortInitial`	`data-sort-initial`		When you set this attribute to true, you can reset list to initial order
`filterClass`	`data-filter-class`		Class for search source element. If you set this attribute, the searcher will use element with this class for searching
`filter`	`data-filter`		Initial filter function.
`filters`	`data-filters`		Initial filters function.
`filterString`	`data-filter-string`		Initial search value.
`source`	`data-source`		Define external data for list.
`showItemsSteps`	`data-show-items-steps`	false	Show items steps counter. Must be true or false.
`showSearch`	`data-show-search`	false	Show search input. Must be true or false.
`showListInfo`	`data-show-list-info`	false	Show list info block. Must be true or false.
`showPagination`	`data-show-pagination`	false	Show pagination. Must be true or false.
`showAllPages`	`data-show-all-pages`	false	Show all links to all pages in pagination.
`showActivity`	`data-show-activity`	true	Show activity for long operations. Must be true or false.
`muteList`	`data-muteList`	true	Mute list in the time of long operations. Must be true or false.
`items`	`data-items`	-1	How many items must be showed. -1 - all items. For pagination.
`itemsSteps`	`data-items-steps`	all, 10,25,50,100	Steps for items count to displayed. For pagination.
`itemsAllTitle`	`data-items-all-title`	Show all items	Title for all items step.
`listItemsCountTitle`	`data-list-items-count-title`	Show entries:	Title for items counter.
`listSearchTitle`	`data-list-search-title`	Search:	Title for search input.
`listInfoTitle`	`data-list-info-title`	Showing $1 to $2 of $3 entries	Title for info block.
`paginationPrevTitle`	`data-pagination-prev-title`	Prev	Title pagination prev button.
`paginationNextTitle`	`data-pagination-next-title`	Next	Title pagination next button.
`activityType`	`data-activity-type`	cycle	Activity type. More about activity
`activityStyle`	`data-activity-style`	color	Activity style.
`searchWrapper`	`data-search-wrapper`		Selector for search input wrapper.
`rowsWrapper`	`data-rows-wrapper`		Selector for steps select wrapper.
`infoWrapper`	`data-info-wrapper`		Selector for list info wrapper.
`paginationWrapper`	`data-pagination-wrapper`		Selector for list pagination block wrapper.

Events

When list works, it generates a series of events that you can use to interact with the component.

Option	Data-*	Desc
`onDraw(el)`	`data-on-draw`	Event fired when the list was drawn.
`onDrawItem(item)`	`data-on-draw-item`	Event fired when the list item was drawn.
`onSortStart(items)`	`data-on-sort-start`	Event fired before sort started.
`onSortStop(items)`	`data-on-sort-stop`	Event fired after sort.
`onSortItemSwitch(a, b, result)`	`data-on-sort-item-switch`	Event fired when two item switched.
`onSearch(filter, items)`	`data-on-search`	Event fired when user use searching.
`onRowsCountChange(val)`	`data-on-rows-count-change`	Event fired when user change items count to display.
`onDataLoad(res)`	`data-on-data-load`	Event fired before external data loads.
`onDataLoaded(res, data)`	`data-on-data-loaded`	Event fired after external data was loaded.
`onFilterItemAccepted(item)`	`data-on-filter-item-accepted`	Event fired filter return true for item.
`onFilterItemDeclined(item)`	`data-on-filter-item-declined`	Event fired filter return false for item.
`onListCreate(el)`	`data-on-list-create`	Event fired after the list created.

Methods

You can use list methods to interact with it.

- **draw()** - redraw list
- **sorting(sortClass, sortDir, redraw)** - sorting list
- **filter(val)** - programming search on list items

- **loadData(res)** - load items from external json
- **next()** - goto next page
- **prev()** - goto prev page
- **first()** - goto first page
- **last()** - goto last page
- **page(n)** - goto specific page
- **addFilter(func)** - add filter function
- **removeFilter(func_index)** - remove filter function
- **removeFilters()** - remove all filters
- **getFilters()** - get filters
- **getFilterIndex()** - get index for filter who set with attribute `data-filter`
- **getFiltersIndexes()** - get indexes for filters who set with attribute `data-filters`

Load data

```
<div class="mb-4 text-center">
    <button class="button"
        onclick="$('#list-load-data').data('list').loadData('data/paintings.json')">
        Load data
    </button>
</div>

<ul id="list-load-data"
    data-role="list"
    data-sort-class="painting-price"
    data-sort-dir="asc"
    data-cls-list="unstyled-list row flex-justify-center mt-4"
    data-cls-list-item="cell-sm-6 cell-md-4"
></ul>
```

Customize list

You can customize style of list and him elements with next options:

Option	`Data-*`	Desc
clsComponent	`data-cls-component`	Additional class for component