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# CDV 7.0.0 CUSTOM STYLES MIGRATION GUIDE



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## What is the purpose of this guide?

As part of the CDV 7.0.0 release, Cloudera has made some major updates to the Bootstrap and jQuery libraries. Bootstrap was upgraded from 3.3.7 to 4.6.0 and JQuery was upgraded from 2.2.4 to 3.6.0. These changes have potential impacts to customers who have created Custom Styles since these would potentially contain code that references legacy Bootstrap classes or JQuery methods in their CSS and/or JS respectively.

## Does this apply to me?

If you have created any Custom Styles prior to CDV 7.0.0 or using legacy Arcadia Enterprise, the information in this guide might be relevant for you.

## How can I confirm we are impacted?

1. Create a new CDV Project.
2. Take a copy of your existing CDV metadata (from the project files this would be the SQLite database located in `/home/cdsw/.arc/arcviz.db`)
3. Copy this SQLite database to `/home/cdsw/.arc/` in your new project.
4. Select the new CDV 7.0.0 runtime for the project, and start the CDV Application.

*NOTE: If you are using an external database like MySQL, MariaDB, Postgres, or Oracle, you will need to make a backup of the database and restore it as a new database that the new instance of CDV can connect to.*

5. After CDV starts, go through each Dashboard and Application using Custom Styles in the new CDV instance and compare with the original CDV instance running an older runtime version (CDV 6.x) to see if the styling or functionality is broken in comparison.

To determine where your Custom Styles are being used on certain Dashboards and Visuals, check the Custom Styles page and look at the column that indicates their links to the Dashboards and Visuals.

Activity Log Users & Groups Manage Roles Manage API Keys Email Templates Custom Styles Custom Colors Custom Dates Static Assets Site Settings

Manage Custom Styles

NEW CUSTOM STYLE Search by name, author

ID	Name	Description	Author	Modified By	Last Updated	Usage Count	Used in Visuals/Dashboards/Apps
19	load_app_metadata		vizapps_admin	vizapps_admin	Dashboard ID	1	889 (Visual 888)
18	filter_filterwidget_fixenddate_override		vizapps_admin	vizapps_admin	an hour ago Visual ID	1	889 (Visual 880)
16	Hide column (spot demo)		vizapps_admin	vizapps_admin	2 days ago	1	830 (Visual 812)
15	Hide column (spot demo)		vizapps_admin	vizapps_admin	2 days ago	1	827 (Visual 815) 828 (Visual 825) 829 (Visual 807) 830 (Visual 819)
14	src_ip4 to app		vizapps_admin	vizapps_admin	2 days ago	2	827 (Visual 815) 829 (Visual 807)
13	Vertical Table w/Image		vizapps_admin	vizapps_admin	2 days ago	1	832 (Visual 805)
12	entity_highlight		vizapps_admin	vizapps_admin	2 days ago	4	826 (Visual 792) 827 (Visual 815) 828 (Visual 825) 829 (Visual 807)
11	url_in_tooltip		vizapps_admin	vizapps_admin	2 days ago	1	826 (Visual 792) 827 (Visual 815) 828 (Visual 825) 829 (Visual 807)

Also check your Dashboards, Visuals, and Applications to see if they have any inline CSS applied to them as they could be impacted by the Bootstrap upgrade.

> Custom Logo

> App Background

< Custom Style

CSS classes for this app

hide-first-dashboard

Included Styles ⓘ

+ Add Style

ID	Style Name	Actions
3	Cyber security app styling (v2)	⚙️ ✖️

Inline CSS

Autocomplete on

```
li:third-child, li:firs
  display: none;
}
```

## Impact and general guidance on updating Custom Styles CSS and/or JS

- If you added custom CSS Styling directly to your Arcadia or CDV Applications (Appgroups) you may have issues following this upgrade with certain class changes related to the Application navbar.
- You may also have nested CSS classes you're using within your Custom Style JS selectors to make modifications to visuals. Check your JS code to see if you need to change your nested class selections if any class has changed as part of the CDV 7.0.0 upgrade.
- If you were using Glyphicons as part of your Custom Style you need to replace the Glyphicon references to icons that match the Font Awesome icon set:
  - Font Awesome Icon Reference: <https://fontawesome.com/icons>
- As part of the Bootstrap upgrade, there were some structural changes for certain types of classes. It is best to reference the Bootstrap 3.x to 4.x migration guide here if you need to make any fixes if there were any problems during functional testing.

Bootstrap 3.x - 4.x changes:

<https://getbootstrap.com/docs/4.0/migration/>

- You may also be using JQuery element selectors or functions in your Custom Style JS. If your selectors or functions are not working properly you might find some helpful guidance on updating your code here.

Jquery upgrade guide:

<https://jquery.com/upgrade-guide/3.0/>

## Example workflow for updating a Custom Style broken by the changes in CDV 7.0.0

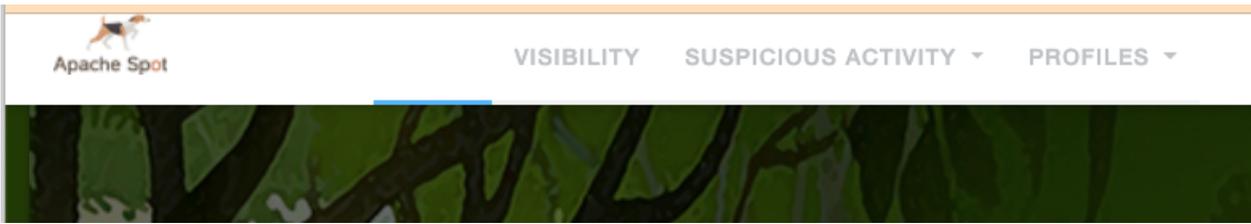
### Example: Broken Application Navbar Styling

After upgrading to CDV 7.0.0 our Application Navbar appears to be broken. The Font types, colors, navbar lower bar color, and logo positioning look very different from the original version if you compare both the screenshots below.

Before (Arcadia Enterprise or CDV 6.x):



After 7.0.0 upgrade:



There are two options we have for repairing the styling of our Application:

1. Fix the CSS - Conform your styling code to the new HTML and CSS changes as part of the CDV 7.0.0 upgrade.
2. Use Application Designer styling options to match previous styling and remove custom CSS.

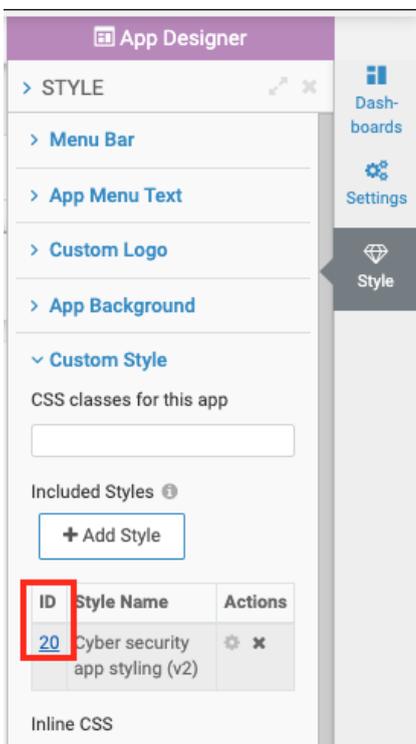
**Option 1: Fix CSS**

Based on the screenshots above we need to make the following fixes to our CSS:

- Fix Navbar menu tab text colors when selected, when not selected, and the font weight.
- Fix Navbar menu tab lower border bar color when selected, and when not selected
- Fix Logo position and top margin spacing

**Step 1:** Open your original CSS Custom Style

Click the ID to open your Custom Style in a new browser tab.



**Step 2:** Clone the Custom Style

Cloning is a safer approach so you can compare the old CSS to the new as you make changes.

Custom Styles / ID: 34

## Custom Style: Clone of Cyber security app styling (v2)

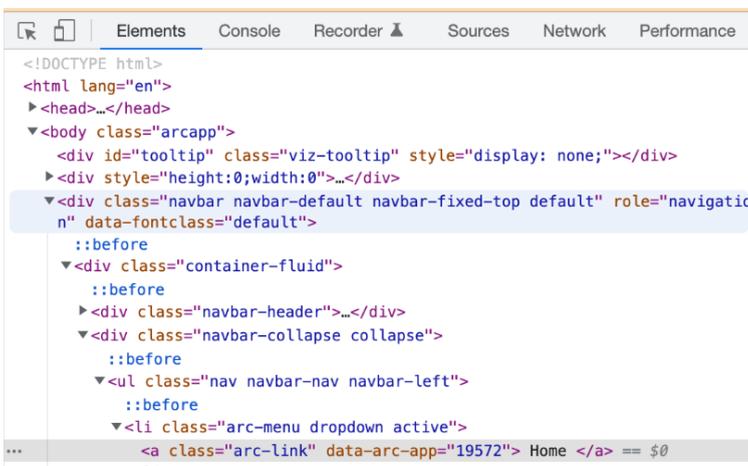
**Name:**

**Description:**

**Step 3:** Compare the HTML and CSS structure between Arcadia / CDV 6.x and CDV 7.0.0

### Arcadia / CDV 6.x HTML / CSS

Use the Elements selector under Chrome Developer Tools to select the navbar so you can focus on those HTML / CSS elements.

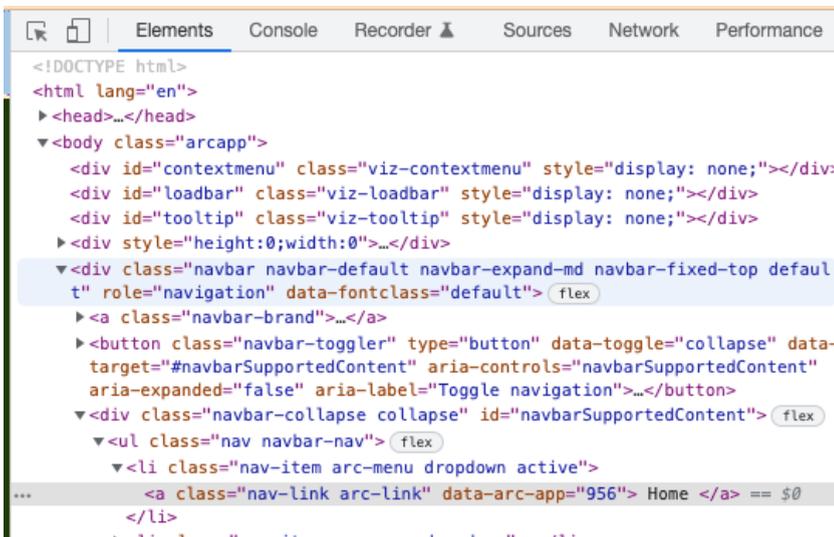


```

<ul class="nav navbar-nav navbar-left">
  ::before
  <li class="arc-menu dropdown">
    <a class="arc-link" data-arc-app="19572"> Home </a> == $0
  </li>
  <li class="arc-menu dropdown active">...</li>
  <li data-appgroupid="838" class="arc-menu dropdown open">
    <a class="dropdown-toggle" data-toggle="dropdown" role="button"
      aria-expanded="true">
      " Suspicious Activity "
      <span class="caret"></span>
    </a>
  
```

CDV HTML / CSS

Use the Elements selector under Chrome Developer Tools to select the navbar so you can focus on those HTML / CSS elements.



```

    <ul class="nav navbar-nav"> flex
      <li class="nav-item arc-menu dropdown">
...
        <a class="nav-link arc-link" data-arc-app="956">
          Home </a> == $0
        </li>
      <li class="nav-item arc-menu dropdown active">
        <a class="nav-link arc-link" data-arc-app="955">
          Visibility </a>
        </li>
      <li data-appgroupid="58" class="nav-item arc-menu drop
down show">
        <a class="nav-link dropdown-toggle" data-toggle="dro
pdown" role="button" aria-expanded="true">...</a>
        <ul class="dropdown-menu show" role="menu">...</ul>
        </li>
      <li data-appgroupid="61" class="nav-item arc-menu drop
down">...</li>
    </ul>

```

**Step 4:** Update CSS to work with new CDV HTML and CSS class structure

**Original CSS:**

```

#dashboard-viz-title {
  display: none;
}
.arc-dashboard-title-container {
  color: #c97644;
}
/* .viz-params-control {*/
/* display:none;*/
/*}*/
.arc-appgroup-logo {
  background-image: url(/arc/reports/staticasset/raw/6.png);
  max-height: 46px;
  margin-top:-1px;
}
.navbar > .container-fluid .navbar-brand {
  margin-left: 0;
  padding: 5px 20px 15px 23px;
}
.navbar {
  background-color: #fff;
  border-bottom: solid 3px #fff;
  box-shadow: 0 0 10px rgba(0, 0, 0, 0.25);
  -webkit-box-shadow: 0 0 10px rgba(0, 0, 0, 0.25);
  -moz-box-shadow: 0 0 10px rgba(0, 0, 0, 0.25);
}
.navbar-default .navbar-nav > li > a {
  font-family: "Open Sans", "Helvetica Neue", Helvetica, Arial, sans-serif;
  color: #626366;
  font-weight: 500;
  font-size: 14px;
  border-bottom: solid 3px #fff;
}
.navbar-default .navbar-nav > li > a:hover, .navbar-default .navbar-nav > li > a:focus {
  background-color: transparent;
  border-bottom: solid 3px #fff;
  margin-bottom: -3px;
  color: #fff;
}
.navbar-default .navbar-nav > li > a:hover {
  border-bottom: solid 3px #fff;
  color: #c97644;
}
}

```

```
.navbar-default .navbar-nav > .active > a, .navbar-default .navbar-nav > .active > a:hover, .navbar-default .navbar-nav > .active > a:focus
{
  background-color: transparent;
  border-bottom: solid 3px #fff;
  color: #c97644;
}
.nav .open {
  background-color: #fff;
}
.navbar-default .navbar-nav>.open>a,
.navbar-default .navbar-nav>.open>a:hover{
  background-color: #fff;
  color: #c97644;
}
```

**Fixed CSS (see bolded/highlighted areas):**

```
#dashboard-viz-title {
  display: none;
}
.arc-dashboard-title-container {
  color: #c97644;
}
/* .viz-params-control {*/
/* display:none;*/
/*}*/
.arc-appgroup-logo {
  background-image: url(/arc/reports/staticasset/raw/6.png);
  max-height: 46px;
  margin-top: 5px;
}
.navbar > .navbar-brand {
  margin-left: 0;
  padding: 5px 20px 15px 23px;
}
.navbar {
  background-color: #fff;
  border-bottom: solid 3px #fff;
  box-shadow: 0 0 10px rgba(0, 0, 0, 0.25);
  -webkit-box-shadow: 0 0 10px rgba(0, 0, 0, 0.25);
  -moz-box-shadow: 0 0 10px rgba(0, 0, 0, 0.25);
}
.navbar .navbar-nav > .nav-item > a {
  font-family: "Open Sans", "Helvetica Neue", Helvetica, Arial, sans-serif;
  color: #626366;
  font-weight: 500;
  font-size: 14px;
  border-bottom: solid 3px #fff;
}
.navbar .navbar-nav > .nav-item > a:hover,
.navbar .navbar-nav > .nav-item > a:focus {
  background-color: transparent;
  border-bottom: solid 3px #fff;
  margin-bottom: -3px;
  color: #fff;
}
.navbar .navbar-nav > .nav-item > a:hover {
  border-bottom: solid 3px #fff;
  color: #c97644;
}
.navbar .navbar-nav > .nav-item.arc-menu.active > a,
.navbar .navbar-nav > .nav-item.arc-menu.active > a:hover,
.navbar .navbar-nav > .nav-item.arc-menu.active > a:focus {
  background-color: transparent;
```

```
border-bottom: solid 3px #fff;
color: #c97644;
}
.nav .show {
background-color: #fff;
}
.navbar .navbar-nav > .nav-item .show > a,
.navbar .navbar-nav > .nav-item .show > a: hover{
background-color: #fff;
color: #c97644;
}
```

**Notes on fixing the Logo top margin**

Issue: Logo is not centered well between top and bottom of Navbar

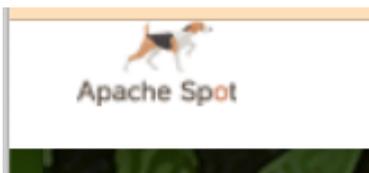
**Original CSS**

```
.arc-appgroup-logo {
background-image: url(/arc/reports/staticasset/raw/6.png);
max-height: 46px;
margin-top: -1px;
}
```

**Fix: Adjust the top margin pixels to 5px to push the logo down**

```
.arc-appgroup-logo {
background-image: url(/arc/reports/staticasset/raw/6.png);
max-height: 46px;
margin-top: 5px;
}
```

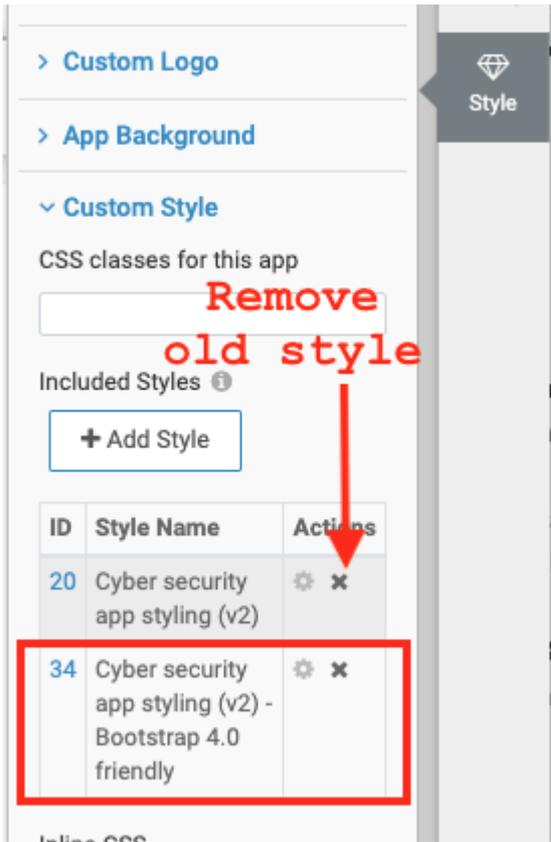
**Before**



**After**

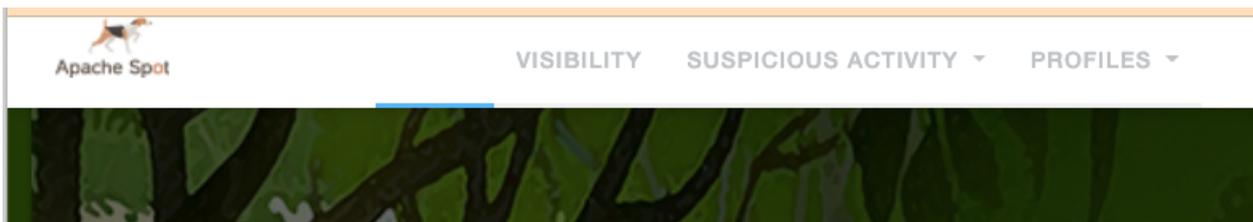


Step 5: Apply your newly updated CSS Custom Style



**Step 6:** Compare before and after changes

**Before (with broken Custom CSS):**



**After (with fixed Custom CSS):**

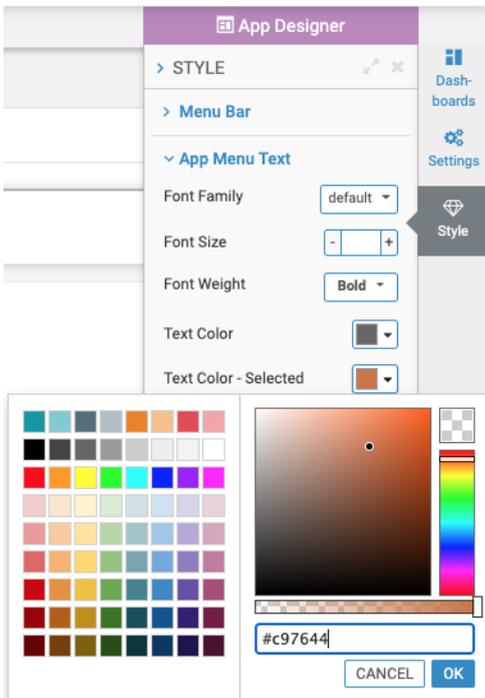
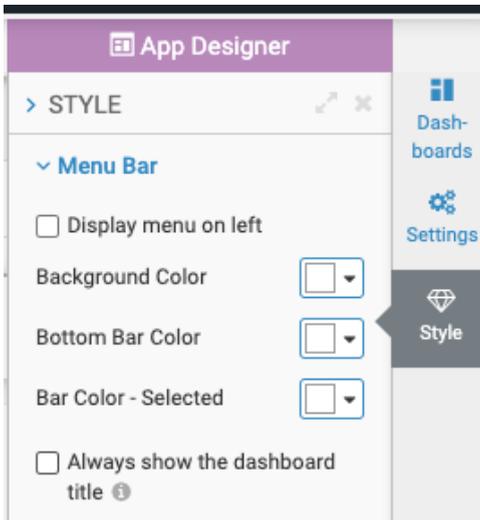


**Option 2: Use Application Designer styling options**

You can use Application Designer styling options to match previous styling and remove your custom CSS.

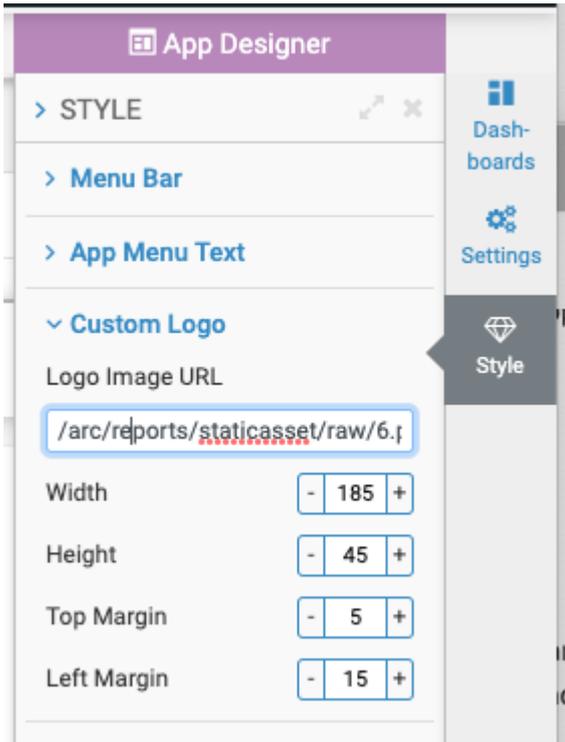
**Step 1:** Match your Application styling to the out of the box Style options in the App Designer menu

In this example, the Background color of our application is white, the bottom bar color on the navbar is white (both by default and when selected), Text color is dark gray and it becomes burnt orange when selected.

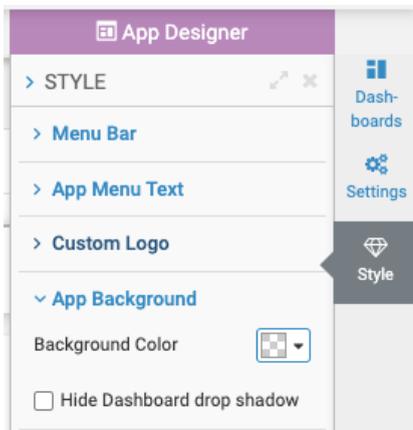


You can paste the relative URL path to the static asset of our logo here (this path can be copied from the CSS in Option 1).

```
.arc-appgroup-logo {
  background-image: url(/arc/reports/staticasset/raw/6.png);
  max-height: 46px;
  margin-top:-1px;
}
```

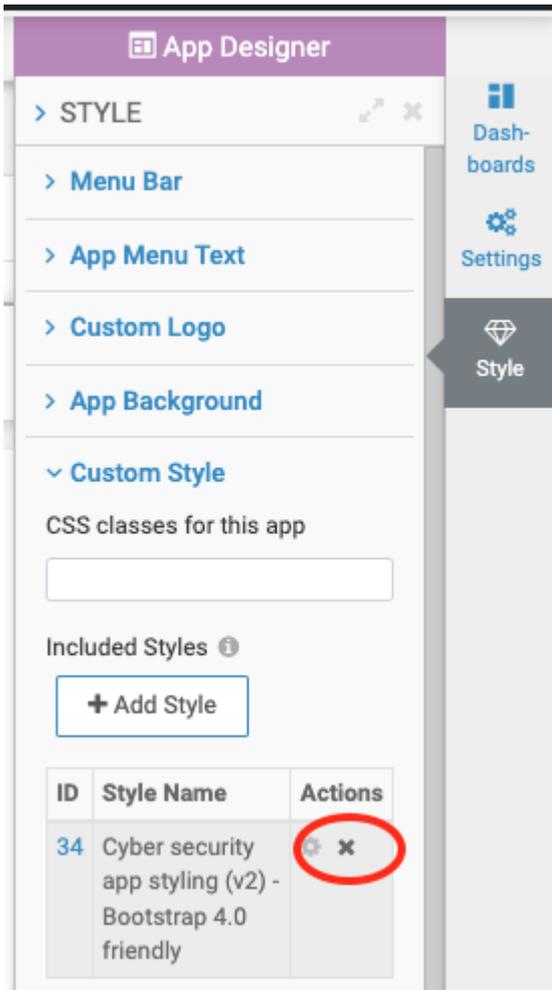


The Background behind the Dashboards is always the default, so no color needs to be selected here.



**Step 2:** Remove CSS Custom Style from Style settings

Since you have matched our CSS styles to the App Designer styles, you can now remove the CSS Custom Style from the Application.



Step 3: Compare before and after changes

Before (with Custom CSS):



After (with App Designer Options):

