Red Hat Developer Hub 1.8

Customizing Red Hat Developer Hub

Customizing Red Hat Developer Hub appearance and features, such as templates, Learning Paths, Tech Radar, Home page, and quick access cards

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Abstract

Authorized users can customize Red Hat Developer Hub (RHDH) appearance and features, such as templates, Learning Paths, Tech Radar, Home page, and quick access cards.

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PREFACE

Authorized users can customize Red Hat Developer Hub (RHDH) appearance and features, such as templates, Learning Paths, Tech Radar, Home page, and quick access cards.

CHAPTER 1. CUSTOMIZING YOUR RED HAT DEVELOPER HUB TITLE

You can change the default Red Hat Developer Hub display name.

Prerequisites

- Custom Developer Hub configuration .

Procedure

- In your custom **app-config.yaml** file, enter your Developer Hub instance display name, such as *<Red Hat Developer Hub>*.

  app-config.yaml excerpt

  ```
  app:
    title: My custom Red Hat Developer Hub title
  ```

CHAPTER 2. CUSTOMIZING YOUR RED HAT DEVELOPER HUB BASE URL

You can change the default Red Hat Developer Hub base URL.

Prerequisites

- You know your desired Developer Hub external URL: https://*<my_developer_hub_domain>*, and have configured DNS to point to your Red Hat OpenShift Container Platform cluster.
- Custom Developer Hub configuration .

Procedure

- In your custom **app-config.yaml** file, enter your Developer Hub external URL, such as https://*<my_developer_hub_domain>*.

  app-config.yaml excerpt

  ```
  app:
    baseUrl: https://<my_developer_hub_domain>
  backend:
    baseUrl: https://<my_developer_hub_domain>
    cors:
      origin: https://<my_developer_hub_domain>
  ```

CHAPTER 3. CUSTOMIZING RED HAT DEVELOPER HUB BACKEND SECRET

The default Red Hat Developer Hub configuration defines the Developer Hub backend secret for service to service authentication.

You can define your custom Developer Hub backend secret.

Prerequisites

- You added a custom Developer Hub application configuration , and have sufficient permissions to modify it.

Procedure

1. To define the Developer Hub backend secret, add to your custom ***<my_product_secrets>*.txt** file the **BACKEND_SECRET** environment variable with a base64 encoded string. Use a unique value for each Developer Hub instance.

   ```
   $ echo > <my_product_secrets>.txt "BACKEND_SECRET=$(node -p
   'require("crypto").randomBytes(24).toString("base64")')"
   ```

   ***<my_product_secrets>*.txt example**

   ```
   BACKEND_SECRET=3E2/rIPuZNFCtYHoxVP8wjriffnN1q/z
   ```

2. Add your backend secret to your custom **app-config.yaml** file.

   app-config.yaml excerpt defining the backend secret

   ```
   backend:
     auth:
       externalAccess:
         - type: legacy
           options:
             subject: legacy-default-config
             secret: "${BACKEND_SECRET}"
   ```

CHAPTER 4. ABOUT SOFTWARE TEMPLATES

Software Templates in Red Hat Developer Hub provide a streamlined way to create software components and publish them to different version control repositories such as Git. Platform engineers create and maintain Software Templates in Red Hat Developer Hub.

4.1. VERSIONING A SOFTWARE TEMPLATE IN RED HAT DEVELOPER HUB

As a platform administrator, you can version Software Templates by using the existing custom actions **catalog:scaffolded-from** and **catalog:template:version** within the scaffolder backend module. By using these custom actions, you can track the scaffolder template version and the corresponding version of the entities created from it, which improves lifecycle management.

Prerequisites

- You have administrator rights to Red Hat Developer Hub.

Procedure

To add versioning to a Software Template yaml file, complete the following steps:

1. Modify the Software Template that you want to update.
2. Complete one or both of the following tasks:
   - Include the **backstage.io/template-version** annotation in your template. When this annotation is present in your template, it is automatically used to annotate your catalog entity and a default version value is displayed.
   - Pass the **backstage.io/template-version** annotation as input to the action. This method takes precedence over the annotation in the template itself. It allows the user running the template to specify the version they wish to generate.

```
# ...
- id: version-templateRef
  name: Append the version of this template to the entityRef
  action: catalog:template:version
  input:
    annotations:
      backstage.io/template-version: ${{ parameters.version }}
# ...
```

Verification

1. Create a catalog component using the updated Software Template . This step creates a new component in Backstage and optionally, pushes files to an external repository (For example, GitHub, GitLab).
2. Check the component in the Catalog UI.
   a. On the **Catalog** page, locate the newly created catalog component.

   b. Verify that the **backstage.io/template-version** annotation is present in the entity. You can use **INSPECT ENTITY** and select **YAML Raw** or **JSON Raw** view to find the annotation in the component definition.

3. Only if you have published the catalog component: Check the component file in the repository.

   a. If **VIEW SOURCE** is present in your UI: Click **VIEW SOURCE** to open the stored component file in the repository.

   b. Locate the file manually and verify that the **backstage.io/template-version** annotation is present.

4.2. ENABLING SOFTWARE TEMPLATE VERSION UPDATE NOTIFICATIONS IN RED HAT DEVELOPER HUB

As a platform engineer, you can enable notification alerts for template version updates using the **@backstage-community/plugin-catalog-backend-module-scaffolder-relation-processor** module, an extension to the **catalog-backend** plugin. When enabled, this module automatically notifies component owners whenever the Software Template used to generate their components is updated to a new version.

This functionality uses the **spec.scaffoldedFrom** field in catalog entities. This field links Software Templates to the entities they have scaffolded. By tracking this relationship, the module helps teams stay informed and take advantage of the latest improvements or fixes.

The **plugin-catalog-backend-module-scaffolder-relation-processor** module is disabled by default.

Prerequisites

- You have installed and configured the Backstage backend notification plugin **@backstage/plugin-notifications-backend**.
- You have installed and configured the Backstage frontend plugin **@backstage/plugin-notifications**.

Procedure

1. To enable the notifications, in your **Red Hat Developer Hub app-config.yaml** file, add the following codes:

   a. In the **dynamicPlugins:frontend** section:

```
frontend:
  backstage.plugin-notifications:
    dynamicRoutes:
      - importName: NotificationPage
        menuItem:
          config:
            props:
              titleCounterEnabled: true
              webNotificationsEnabled: false
          importName: NotificationsSidebarItem
          path: /notifications
```

   b. In a new section:

```
scaffolder:
  notifications:
    templateUpdate:
      enabled: true # Set to false to disable notifications
```

You can also customize the notification title and description as shown in the following code:

```
scaffolder:
  notifications:
    templateUpdate:
      enabled: true
      message:
        title: 'Custom title for $ENTITY_DISPLAY_NAME'
        description: 'Custom description'
```

where:

enabled

Set to **true** to enable the notification. Default value is **false**.

message:title

Enter the notification title.

message:description

Enter the notification description.

NOTE

Both **message:title** and **message:description** support the template variable **$ENTITY_DISPLAY_NAME**. The system automatically substitutes this variable with the title (or the name, if the title is missing) of the entity scaffolded from the updated template.

Verification

- In your Red Hat Developer Hub instance, on the left navigation menu, you are able to see **Notifications**, or, if configured, the custom title.
- When you update the version number in the Software Template, you receive a notification.

4.3. TRACKING COMPONENT ORIGIN AND SOFTWARE TEMPLATE VERSION

Platform engineers use custom actions within the Software Template scaffolding process to establish and track the dependency link between a generated entity (Component or Resource) and its source template. This relationship is called scaffolding provenance.

Platform administrators use custom actions such as **catalog:scaffolded-from** and **catalog:template:version** in the scaffolder backend module to track the template version and the corresponding entity version, which simplifies lifecycle management.

4.3.1. Configuring provenance and Software Template versioning Red Hat Developer Hub

As a platform engineer, you must modify the Software Template YAML definition to ensure the required provenance information is added during the scaffolding process.

Prerequisites

- You have administrator rights to Red Hat Developer Hub.

Procedure

1. Locate the Software Template object YAML file where you want to add the provenance information and add a step that uses the **catalog:scaffolded-from** action. This action links the resulting catalog entity back to the source template.

2. Optional: To track the template version (for example, v1.0 versus v1.5), include the **catalog:template:version** action in the **steps** section. The following code block is an example to adding versioning action to the **steps** section:

```
steps:
  - id: create-provenance-annotation
    name: Append the entityRef of this template to the entityRef
    action: catalog:scaffolded-from
  - id: create-version-annotation
    name: Create Template Version Annotation
    action: catalog:template:version
    input:
      templateVersion: ${{ parameters.version }}
  - ... other steps ...
```

where:

steps:input:templateVersion
Reads the version parameter

NOTE

The **catalog:template:version** action reads a version parameter defined in the template and applies it as an annotation to the resulting catalog entity.

3. In your Red Hat Developer Hub **app-config.yaml** file, configure the **catalog.locations** section to point to the Software Template that you want to add. You might need to add **Template** to the global **catalog.rules.allow** list or add a granular rule to the location to allow for Software Templates ingestion, as shown in the following example:

```
# ...
catalog:
  locations:
    - type: url
      target: https://<repository_url>/example-template.yaml
      rules:
        - allow: [Template]
# ...
```

where:

catalog.locations.type

Enter the **url** type if you are importing templates from a repository, such as GitHub or GitLab.

catalog.locations.target

Enter the URL for the template.

catalog.locations.rules.allow

Enter the **Template** rule to allow new Software Templates to be added to the catalog.

Verification

After creating a component with the updated template, verify the provenance annotations in the resulting Catalog Entity YAML.

1. In the Red Hat Developer Hub navigation menu, go to **Catalog** and locate the newly created catalog component.
2. To view the underlying data that links the entity to the template, select the **INSPECT ENTITY** option.
3. To verify provenance annotations, complete the following steps:
   a. Select the **YAML Raw** or **JSON Raw** view and verify the presence of the data item for the **scaffoldedFrom** link.
   b. Optional: If versioning was included, verify the presence of the **backstage.io/template-version** annotation.

NOTE

If you publish the catalog component to an external repository (such as Git), the component file in that repository must also contain the **backstage.io/template-version** annotation.

4.3.2. Viewing Software Template dependencies

As a developer, you can track which entities were created from a specific Software Template. When a platform engineer configures provenance on a template, you can quickly identify the complete dependency and impact map of that template by viewing all linked components and resources in the Catalog.

Procedure

To view all components created from a specific template, complete the following steps:

1. In the Red Hat Developer Hub navigation menu, click **Catalog**, use the filters to find and select the Software Template you wish to inspect.
2. In the Software Template detail page, click the **Dependencies** tab. This view lists all catalog entities such as components, resources, and systems that reference this template, including any version information if configured.

Additional resources

- 10 tips for better Backstage Software Templates

- Enabling the GitHub authentication provider
- Backstage documentation - Writing Templates
- Backstage documentation - Built-in actions
- Backstage documentation - Writing Custom Actions

CHAPTER 5. CUSTOMIZING THE LEARNING PATHS IN RED HAT DEVELOPER HUB

In Red Hat Developer Hub, you can configure Learning Paths by hosting the required data externally, and using the built-in proxy to deliver this data rather than the default.

You can provide Learning Paths data from the following sources:

- A JSON file hosted on a web server, such as GitHub or GitLab.
- A dedicated service that provides the Learning Paths data in JSON format using an API.

5.1. ABOUT LEARNING PATHS

You can use the Learning Paths plugin in Red Hat Developer Hub to integrate customized e-learning content into the developer workflows. By using Learning Paths, you can create a collaborative learning culture, boost productivity, and ensure that teams stay updated with relevant best practices and technologies. The overall purpose is to accelerate onboarding, address skill gaps, ensure regulatory compliance, promote best practices, and facilitate product updates.

5.2. CUSTOMIZING THE LEARNING PATHS BY USING A HOSTED JSON FILE

For ease of use and simplicity, you can configure the Learning Paths by using a hosted JSON file.

Procedure

1. Publish the JSON file containing your Learning Paths data to a web server, such as GitHub or Gitlab. You can find an example at https://raw.githubusercontent.com/redhat-developer/rhdh/release-1.8/packages/app/public/learning-paths/data.json.

2. Configure the Developer Hub proxy to access the Learning Paths data from the hosted JSON file, by adding the following to the **app-config.yaml** file:

```
proxy:
  endpoints:
    '/developer-hub':
      target: <target>
      pathRewrite:
        '^/api/proxy/developer-hub/learning-paths': '<learning_path.json>'
      changeOrigin: true
      secure: true
```

<target>

Enter the hosted JSON file base URL, such as **https://raw.githubusercontent.com**.

<learning_path.json>

Enter the hosted JSON file path without the base URL, such as **'/redhat-developer/rhdh/main/packages/app/public/learning-paths/data.json'**

TIP

When also configuring the home page, due to the use of overlapping **pathRewrites** for both the **learning-path** and **homepage** quick access proxies, create the **learning-paths** configuration (**^api/proxy/developer-hub/learning-paths**) before you create the **homepage** configuration (**^/api/proxy/developer-hub**). For example:

```
proxy:
  endpoints:
    '/developer-hub':
      target: https://raw.githubusercontent.com/
      pathRewrite:
        '^/api/proxy/developer-hub/learning-paths': '/redhat-
developer/rhdh/main/packages/app/public/learning-paths/data.json'
        '^/api/proxy/developer-hub/tech-radar': '/redhat-
developer/rhdh/main/packages/app/public/tech-radar/data-default.json'
        '^/api/proxy/developer-hub': '/redhat-
developer/rhdh/main/packages/app/public/homepage/data.json'
      changeOrigin: true
      secure: true
```

Additional resources

- Customizing the Home page in Red Hat Developer Hub

5.3. CUSTOMIZING THE LEARNING PATHS BY USING A CUSTOMIZATION SERVICE

For advanced scenarios, you can host your Red Hat Developer Hub customization service to provide data to all configurable Developer Hub pages, such as the Learning Paths. You can even use a different service for each page.

Procedure

1. Deploy your Developer Hub customization service on the same OpenShift Container Platform cluster as your Developer Hub instance. You can find an example at **red-hat-developer-hub-customization-provider**, that provides the same data as default Developer Hub data. The customization service provides a Learning Paths data URL such as: **http://*<rhdh-customization-provider>*/learning-paths**.

2. Configure the Developer Hub proxy to use your dedicated service to provide the Learning Path data, add the following to the **app-config.yaml** file:

```
proxy:
  endpoints:
    '/developer-hub/learning-paths':
      target: <learning_path_data_url>
      changeOrigin: true
      qsecure: true (1)
```

(1) Change to "false" in case of using self hosted cluster with a self-signed certificate

5.4. STARTING AND COMPLETING LESSONS IN LEARNING PATHS

As a developer, you can start a course and complete the lessons at your own pace.

Prerequisites

1. You can log in to developers.redhat.com
2. Your platform engineer has granted you access to the Learning Paths plugin.

Procedure

To start a course in Learning Paths, complete the following steps:

1. In your Red Hat Developer Hub navigation menu, click **Learning Paths**.
2. Select the tile for the course you would like to begin.

NOTE

This action redirects you to the main page of the course in the Red Hat Developers site.

CHAPTER 6. CONFIGURING THE GLOBAL HEADER IN RED HAT DEVELOPER HUB

As an administrator, you can configure the Red Hat Developer Hub global header to create a consistent and flexible navigation bar across your Developer Hub instance. By default, the Developer Hub global header includes the following components:

- **Self-service** button provides quick access to a variety of templates, enabling users to efficiently set up services, backend and front-end plugins within Developer Hub
- **Support** button that can link an internal or external support page
- **Notifications** button displays alerts and updates from plugins and external services
- **Search** input field allows users to find services, components, documentation, and other resources within Developer Hub
- **Plugin extension capabilities**provide a preinstalled and enabled catalog of available plugins in Developer Hub
- **User profile** drop-down menu provides access to profile settings, appearance customization, Developer Hub metadata, and a logout button

6.1. CUSTOMIZING YOUR RED HAT DEVELOPER HUB GLOBAL HEADER

You can use the **red-hat-developer-hub.backstage-plugin-global-header** dynamic plugin to extend the global header with additional buttons and customize the order and position of icons and features. Additionally, you can create and integrate your custom dynamic header plugins using the mount points provided by this new header feature, allowing you to further tailor to suit your needs. For more information about enabling dynamic plugins, see Installing and viewing plugins in Red Hat Developer Hub.

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-global-header
  disabled: false
  pluginConfig:
    app:
      sidebar:
        search: false
        settings: false
    dynamicPlugins:
      frontend:
        default.main-menu-items:
          menuItems:
            default.create:
              title: ''
        red-hat-developer-hub.backstage-plugin-global-header: # the default enabled dynamic header plugin
          mountPoints:
            - mountPoint: application/header
              importName: GlobalHeader
              config:
                position: above-main-content 1
            - mountPoint: global.header/component
          importName: SearchComponent
          config:
            priority: 100
        - mountPoint: global.header/component
          importName: Spacer
          config:
            priority: 99
            props:
              growFactor: 0
        - mountPoint: global.header/component
          importName: HeaderIconButton
          config:
            priority: 90
            props:
              title: Self-service
              icon: add
              to: create
        - mountPoint: global.header/component
          importName: SupportButton
          config:
            priority: 80
        - mountPoint: global.header/component
          importName: NotificationButton
          config:
            priority: 70
        - mountPoint: global.header/component
          importName: Divider
          config:
            priority: 50
        - mountPoint: global.header/component
          importName: ProfileDropdown
          config:
            priority: 10
        - mountPoint: global.header/profile
          importName: MenuItemLink
          config:
            priority: 100
            props:
              title: Settings
              link: /settings
              icon: manageAccounts
        - mountPoint: global.header/profile
          importName: LogoutButton
          config:
            priority: 10
```

where:

search

Enter **false** to hide the **Search** modal in the sidebar menu. Enter **true** to display the **Search** modal in the sidebar menu.

settings

Enter **false** to hides the **Settings** button in the sidebar menu. Enter **true** to display the **Settings** button in the sidebar menu.

default.main-menu-items

Enter this field to hide the **Self-service** button from the sidebar menu. Remove this field to display the **Self-service** button in the sidebar menu.

position

Enter **above-main-content** to position the header above the main content. Enter **above-sidebar** to position the header above the sidebar.

To extend the functionality of the default global header, include any of the following attributes in your global header entry:

mountPoint

Specifies the location of the header. Use **application/header** to specify it as a global header. You can configure several global headers at different positions by adding entries to the **mountPoints** field.

importName

Specifies the component exported by the global header plugin.
The **red-hat-developer-hub.backstage-plugin-global-header** package (enabled by default) offers the following header components as possible mount point values:

- **SearchComponent**: Adds a search bar (enabled by default).
- **Spacer**: Adds spacing in the header to position buttons at the end. Useful when you disable **SearchComponent**.
- **HeaderIconButton**: Adds an icon button. By default, the **Self-service** icon button remains enabled.
- **SupportButton**: Adds a **Support** icon button, allowing users to configure a link to an internal or external page. Enabled by default but requires additional configuration to display.
- **NotificationButton**: Adds a **Notifications** icon button to display unread notifications in real time and navigate to the **Notifications** page. Enabled by default (requires the notifications plugin).
- **Divider**: Adds a vertical divider. By default, a divider appears between the profile dropdown and other header components.
- **ProfileDropdown**: Adds a profile dropdown showing the logged-in user’s name. By default, it contains two menu items.
- **MenuItemLink**: Adds a link item in a dropdown menu. By default, the profile dropdown includes a link to the **Settings** page.
- **LogoutButton**: Adds a logout button in the profile dropdown (enabled by default).
- **CreateDropdown**: Adds a **Self-service** dropdown button (disabled by default). The menu items are configurable.
- **SoftwareTemplatesSection**: Adds a list of software template links to the **Self-service** dropdown menu (disabled by default). You must enable **CreateDropdown**.
- **RegisterAComponentSection**: Adds a link to the **Register a Component** page in the **Self-service** dropdown menu (disabled by default). You must enable **CreateDropdown**.

config.position

Specifies the position of the header. Supported values are **above-main-content** and **above-sidebar**.

Prerequisites

- You must configure the support URL in the **app-config.yaml** file to display the **Support** button in the header.
- You must install the notifications plugin to display the **Notifications** button in the header.

Procedure

1. Copy the default configuration and modify the field values to suit your needs. You can adjust the **priority** value of each header component to control its position. Additionally, you can enable or disable components by adding or removing them from the configuration. To ensure that the remaining header buttons align with the end of the header before the profile dropdown button, set **config.props.growFactor** to **1** in the **Spacer** mount point to enable the **Spacer** component. For example:

```
- mountPoint: global.header/component
  importName: Spacer
  config:
    priority: 100
    props:
      growFactor: 1
```

2. To use your custom header, you must install it as a dynamic plugin by adding your plugin configuration to your **app-config-dynamic.yaml** file. For example:

```
- package: <npm_or_oci_package-reference>
  disabled: false
  pluginConfig:
    dynamicPlugins:
      frontend:
        <package_name>:
          mountPoints:
            - mountPoint: application/header
              importName: <application_header_name>
              config:
                position: above-main-content
            - mountPoint: global.header/component
              importName: <header_component_name>
              config:
                priority: 100
            - mountPoint: global.header/component
              importName: <header_component_name>
              config:
                priority: 90
```

where:

<npm_or_oci_package-reference>

Specifies the package name.

<application_header_name>

Specifies the name of the application header. For example: **MyHeader**

<header_component_name>

Specifies the name of the header component. For example: **MyHeaderComponent**

> NOTE
>
> **importName** is an optional name referencing the value returned by the scaffolder field extension API.

3. Optional: To disable the global header, set the value of the **disabled** field to **true** in your **dynamic-plugins.yaml** file. For example:

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-global-header
  disabled: true
```

6.2. MOUNT POINTS FOR DYNAMIC PLUGIN INTEGRATION

You can customize the application header in Developer Hub using mount points for dynamic plugins. These mount points give flexibility in configuring the position of the header, its components and dropdown menus. You can create a customized experience with the following enhancements:

application/header

Controls the header position. Use **config.position** to set placement as either **above-main-content** or **above-sidebar**.

global.header/component

Configures header components. Use **config.priority** to set the order of components, and pass properties (including CSS styles) via **config.props**.

Self-service button

```
- mountPoint: global.header/component
  importName: HeaderIconButton
  config:
    priority: 80
    props:
      title: Self-service
      icon: add
      to: create
```

Spacer element

```
- mountPoint: global.header/component
  importName: Spacer
  config:
    priority: 99
    props:
      growFactor: 0
```

Divider element

```
mountPoints:
  - mountPoint: global.header/component
    importName: Divider
    config:
      priority: 150
```

global.header/profile

Configures the profile dropdown list when the **ProfileDropdown** component is enabled.

- To add a settings link to the profile dropdown, use the following code:

```
- mountPoint: global.header/profile
  importName: MenuItemLink
  config:
    priority: 100
    props:
      title: Settings
      link: /settings
      icon: manageAccounts
```

global.header/create

Configures the create dropdown list when the **CreateDropdown** component is enabled.

- To add a section for registering a component, use the following code:

```
- mountPoint: global.header/create
  importName: RegisterAComponentSection
  config:
    props:
      growFactor: 0
```

6.3. CONFIGURING THE LOGO IN THE GLOBAL HEADER

You can configure a company logo in the global header of the Red Hat Developer Hub (RHDH) to reflect your company's branding. **CompanyLogo** is part of the global header by default and offers full control over the theming, navigation behavior, sizing, and fallback options.

This component supports the following props, which are provided through configuration:

- **logo**: The base64 encoded logo image.
- **to**: The redirect path for when users click the logo is '/catalog'.
- **width**: The logo width is optional and defaults to 150 px.
- **height**: The logo height is optional and defaults to 40 px.

Procedure

1. To display a custom company logo in the global header, update the configuration with a mount point for **CompanyLogo**:

```
# ...rest of the global header configuration
red-hat-developer-hub.backstage-plugin-global-header:
  mountPoints:
    - mountPoint: application/header
      importName: GlobalHeader
      config:
        # Supported values: above-main-content | above-sidebar
        position: above-main-content

    - mountPoint: global.header/component
      importName: CompanyLogo
      config:
        priority: 200
        props:
          # Path to navigate when users click the logo:
          to: '/catalog'
          width: 300
          height: 200
          logo: <string> or <object> # Logo can be a base64 string or theme-specific object
            # Example 1: Single logo for all themes
            # logo: "<base64_encoded_images>"

            # Example 2: Theme-specific logos
            # logo:
                dark: 'data:image/png;base64,...' # Used in dark theme
                light: 'data:image/png;base64,...' # Used in light theme
```

2. (Optional) If you do not provide **logo** props to the **CompanyLogo** component, the component instead uses values defined under **app.branding** in your **app-config.yaml** file. You can configure the **CompanyLogo** as shown in the following configuration:

```
app:
  branding:
    fullLogoWidth: 220  # Fallback width
    fullLogo: <string> or <object> #fullLogo can be a base64 string or theme-specific object

    # Example 1: Single logo for all themes
    #fullLogo: "<base64_encoded_image>
    # Example 2: Theme-specific logos
    #fullLogo:
        dark: 'data:image/png;base64,...' # Used in dark theme
        light: 'data:image/png;base64,...' # Used in light theme
```

CompanyLogo uses the following configuration elements to control fallback and sizing behavior:

- **Logo source priority**
  - The component selects the logo source in the following order:
    First, **CompanyLogo** props (logo, logo.light, logo.dark), then, **app.branding.fullLogo**. If you do not provide a logo through either, the component displays the default Developer Hub theme-specific logo.
- **Logo width priority**

- The component applies the first available value from **props.width**, then **app.branding.fullLogoWidth** from **app-config.yaml**. If you do not specify the **width** using either, the component applies a default width (150 px).

NOTE

CompanyLogo preserves the images aspect ratio and never crops or distorts it. If the configured width results in a height greater than the maximum allowed (default: 40px), the image is automatically scaled down. As a result, adjusting only the width may not visibly change the logo unless the height is also configured.

Increasing the logo **height** increases the height of the global header. The component first applies the value from **props.height**. If you do not specify the **height**, the component applies a default height (40px).

Verification

1. The logo appears correctly in the global header.
2. Click the logo to confirm it redirects to the path you defined in **props.to**.
3. Toggle between **light** and **dark** themes to ensure the correct logo loads in each.
4. (Optional) Temporarily remove the **CompanyLogo** props to test the fallback to **app.branding.fullLogo**.

6.4. ENABLING LOGO IN THE SIDEBAR

You can configure a logo in the sidebar of the Red Hat Developer Hub (RHDH).

Procedure

1. To display the logo exclusively in the sidebar, set the value of the **app.sidebar.logo** parameter to **true** as shown in the following example:

```
app:
  sidebar:
    logo: true
```

   NOTE

   To display the logo in only the sidebar, remove the **CompanyLogo** component from the configuration.

2. To display the same logo in the sidebar for all themes, update the configuration as shown in the following configuration:

```
app:
  sidebar:
    logo: true
  branding:
    fullLogoWidth: 220
    fullLogo: 'data:image/svg+xml;base64,...'
```

–

3. For theme-specific logos, you can configure the sidebar logo as shown in the following configuration:

```
app:
  sidebar:
    logo: true
  branding:
    fullLogoWidth: 220
    fullLogo:
      light: 'data:image/svg+xml;base64,...'
      dark: 'data:image/svg+xml;base64,...'
```

Verification

1. The logo appears correctly in the sidebar.
2. Toggle between **light** and **dark** themes to ensure the correct logo loads in each.

6.5. DISPLAYING THE PREFERRED USERNAME IN THE PROFILE DROPDOWN

You can display the preferred username in the global header profile drop-down list by configuring **spec.profile.displayName** in the user entity. When not configured, the application falls back to a **metadata.title**. If neither is configured, it defaults to a user-friendly name generated by the **useProfileInfo** hook.

Procedure

1. To configure **spec.profile.displayName**, use the following code:

```
apiVersion: backstage.io/v1alpha1
kind: User
metadata:
  # Required unique username
  name: <my_display_name>
  # Optional preferred title
  title: <display_name_title>
spec:
  profile:
    # Optional preferred display name (highest priority)
    displayName: <my_display_name>
  memberOf: [janus-authors]
```

2. To configure **metadata.title** rather than **spec.profile.displayname**, use the following code:

```
apiVersion: backstage.io/v1alpha1
kind: User
metadata:
  # Required unique username
  name: <my_display_name>
  # Optional preferred title
  title: <display_name_title>
spec:
  memberOf: [janus-authors]
```

3. To configure neither **spec.profile.displayname** or **metadata.title**, use the following code:

```
apiVersion: backstage.io/v1alpha1
kind: User
metadata:
  # Required unique username
  name: <my_display_name>
spec:
  memberOf: [janus-authors]
```

NOTE

The application falls back to **metadata.name** when you do not register the user entity.

6.6. QUICKLINKS AND STARRED ITEMS IN THE GLOBAL HEADER

The **Quicklinks** matrix and **Starred Items** drop-down list are enabled by default and appear in the global header without requiring additional configuration.

The **Quicklinks** matrix, organized by sections (for example, Documentation or Developer Tools), allows users to quickly access internal or external resources. The **Starred Items** drop-down list contains entities and pages that the user has starred.

The default configuration includes the following components:

StarredDropdown

Display the **Starred Items** menu in the global header by default, as shown in the following configuration:

```
# Group: Global Header
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-global-header
  - mountPoint: global.header/component
    importName: StarredDropdown
    config:
      priority: 85
```

ApplicationLauncherDropdown

Provide the **Quicklinks** matrix (application launcher) by default, as shown in the following configuration:

```
# Group: Global Header
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-global-header
  - mountPoint: global.header/component
    importName: ApplicationLauncherDropdown
    config:
      priority: 82
```

MenuItemLink entries

Define sections, titles, icons, and links within the **Quicklinks** matrix. The default configuration includes links to the Developer Hub documentation and an RHDH Local, as shown in the following configurations:

```
- mountPoint: global.header/application-launcher
  importName: MenuItemLink
  config:
    section: Documentation
    priority: 150
    props:
      title: Developer Hub
      icon: developerHub
      link: https://docs.redhat.com/en/documentation/red_hat_developer_hub

- mountPoint: global.header/application-launcher
  importName: MenuItemLink
  config:
    section: Developer Tools
    priority: 100
    props:
      title: RHDH Local
      icon: developerHub
      link: https://github.com/redhat-developer/rhdh-local
```

NOTE

When upgrading from previous versions, the installer does not overwrite your existing **dynamic-plugins.yaml** configuration. If you had not configured **Starred Items** or **Quicklinks** previously, they remain disabled after the upgrade and must be manually enabled.

6.7. ENABLING QUICKLINKS AND STARRED ITEMS AFTER AN UPGRADE

If you upgrade from Red Hat Developer Hub **1.6** or earlier, Red Hat Developer Hub does not automatically enable the **Quicklinks** and **Starred Items** features. You must manually configure these features to display them in the global header.

Prerequisites

1. You have access to your Red Hat Developer Hub configuration files.
2. You have administrative permissions to modify ConfigMaps (if using the Operator).

Procedure

1. Locate your **dynamic-plugin** configuration.
   - Operator deployment: The configuration is stored in a ConfigMap referenced by your Backstage custom resource (CR).
   - Helm deployment: The configuration is in your **values.yaml** file or separate configuration files.

2. Enable the global header plugin. Ensure that the **red-hat-developer-hub-backstage-plugin-global-header** entry exists under the **plugins: list** and that **disabled** is set to **false**.

3. Verify that you enabled the global header plugin. Confirm that you listed the **red-hat-developer-hub-backstage-plugin-global-header** plugin under **plugins:** with **disabled: false** (or without a **disabled** property):

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-global-header
  disabled: false
```

4. Add the required components. Under the **mountPoints** section of the plugin, add the components as shown in the following example:

```
mountPoints:
  - mountPoint: application/header
    importName: GlobalHeader
    config:
      position: above-sidebar
  - mountPoint: global.header/component
    importName: StarredDropdown
    config:
      priority: 85
  - mountPoint: global.header/component
    importName: ApplicationLauncherDropdown
    config:
      priority: 82
  - mountPoint: global.header/component
    importName: MenuItemLink
    config:
      section: Documentation
    priority: 150
    props:
        title: Developer Hub
        icon: developerHub
        link: https://docs.redhat.com/en/documentation/red_hat_developer_hub
  - mountPoint: global.header/application-launcher
  importName: MenuItemLink
  config:
    section: Developer Tools
    priority: 100
    props:
        title: RHDH Local
        icon: developerHub
        link: https://github.com/redhat-developer/rhdh-local
```

5. Apply the configuration.

   - Operator deployment: Update the ConfigMap and allow the Operator to reconcile the changes.

   - Helm deployment: Apply your updated configuration using **helm upgrade**.

6. Verify the features are enabled. After the Red Hat Developer Hub instance restarts, confirm that the star icon and **Quicklinks** matrix appear in the global header.

CHAPTER 7. CONFIGURING A FLOATING ACTION BUTTON IN RED HAT DEVELOPER HUB

You can use the floating action button plugin to configure any action as a floating button in the Developer Hub instance. The floating action button plugin is enabled by default. You can also configure floating action buttons to display as submenu options within the main floating action button by assigning the floating action buttons to the same **slot** field of your **dynamic-plugins.yaml** file.

7.1. CONFIGURING A FLOATING ACTION BUTTON AS A DYNAMIC PLUGIN

You can configure the floating action button as a dynamic plugin to perform actions or open an internal or external link.

Prerequisites

- You must have sufficient permissions as a platform engineer.

Procedure

To configure a floating action button as a dynamic plugin, complete any of the following tasks:

- Specify the **global.floatingactionbutton/config** mount point in your **app-config-dynamic.yaml** file. For example:

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-bulk-import
  disabled: false
  pluginConfig:
    dynamicPlugins:
      frontend:
        red-hat-developer-hub.backstage-plugin-bulk-import:
          # Start of the floating action button configuration
          mountPoints:
            - mountPoint: global.floatingactionbutton/config
              importName: BulkImportPage
              config:
                slot: 'page-end'
                icon: <svg xmlns="http://www.w3.org/2000/svg" enable-background="new 0 0 24 24" height="24px" viewBox="0 0 24 24" width="24px" fill="#e8eaed"><g><rect fill="none" height="24" width="24"/></g><g><path d="M11,7L9.6,8.4l2.6,2.6H2v2h10.2l-2.6,2.6L11,17l5-5L11,7z M20,19h-8v2h8c1.1,0,2-0.9,2-2V5c0-1.1-0.9-2-2-2h-8v2h8V19z"/></g></svg>
                label: 'Bulk import'
                toolTip: 'Register multiple repositories in bulk'
                to: /bulk-import/repositories
          # End of the floating action button configuration
          appIcons:
            - name: bulkImportIcon
              importName: BulkImportIcon
          dynamicRoutes:
            - path: /bulk-import/repositories
              importName: BulkImportPage
              menuItem:
                icon: bulkImportIcon
                text: Bulk import
```

frontend:mountPoints:importName

(Required) The import name with an associated component to the mount point.

frontend:mountPoints:importName:icon

Use the **svg** value to display a black **BulkImportPage** icon.

- To configure an action as a floating action button that opens an external link, specify the **global.floatingactionbutton/config** mount point in your **dynamic-plugins.yaml** file within the **backstage-plugin-global-floating-action-button** plugin. For example:

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-global-floating-action-button
  disabled: false
  pluginConfig:
    dynamicPlugins:
      frontend:
        red-hat-developer-hub.backstage-plugin-global-floating-action-button:
          mountPoints:
            - mountPoint: application/listener
              importName: DynamicGlobalFloatingActionButton
            - mountPoint: global.floatingactionbutton/config
              importName: NullComponent
              config:
                icon: '<svg viewBox="0 0 250 300" xmlns="http://www.w3.org/2000/svg" preserveAspectRatio="xMidYMid"><path d="M200.134 0l55.555 117.514-55.555 117.518h-47.295l55.555-117.518L152.84 0h47.295zM110.08 99.836l20.056-38.092-2.29-8.868L102.847 0H55.552l48.647 102.898 5.881-3.062zm17.766 74.433l-17.333-39.034-6.314-3.101-48.647 102.898h47.295l25-52.88v-7.883z" fill="#40B4E5"/><path d="M152.842 235.032L97.287 117.514 152.842 0h47.295l-55.555 117.514 55.555 117.518h-47.295zm-97.287 0L0 117.514 55.555 0h47.296L47.295 117.514l55.556 117.518H55.555z" fill="#003764"/></svg>'
                label: 'Quay'
                showLabel: true
                toolTip: 'Quay'
                to: 'https://quay.io'
            - mountPoint: global.floatingactionbutton/config
              importName: NullComponent
              config:
                icon: github
                label: 'Git'
                toolTip: 'Github'
                to: https://github.com/redhat-developer/rhdh-plugins
```

frontend:mountPoints:importName

Enter the import name with an associated component to the mount point.

frontend:mountPoints:importName:icon

(Optional) Enter the icon in Scalable Vector Graphics (SVG) format to display the **Quay** icon.

- To configure a floating action button that contains a submenu, define the **global.floatingactionbutton/config** mount point in the same **slot** field in your **dynamic-plugins.yaml** file for multiple actions. The default slot is **page-end** when not specified. For example:

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-bulk-import
```

```
  disabled: false
  pluginConfig:
    dynamicPlugins:
      frontend:
        red-hat-developer-hub.backstage-plugin-bulk-import:
          # Start of fab config
          mountPoints:
            - mountPoint: global.floatingactionbutton/config
              importName: BulkImportPage
              config:
                slot: 'page-end'
                icon: <svg xmlns="http://www.w3.org/2000/svg" enable-background="new 0 0 24
24" height="24px" viewBox="0 0 24 24" width="24px" fill="#e8eaed"><g><rect fill="none"
height="24" width="24"/></g><g><path d="M11,7L9.6,8.4l2.6,2.6H2v2h10.2l-2.6,2.6L11,17l5-
5L11,7z M20,19h-8v2h8c1.1,0,2-0.9,2-2V5c0-1.1-0.9-2-2-2h-8v2h8V19z"/></g></svg>
                label: 'Bulk import'
                toolTip: 'Register multiple repositories in bulk'
                to: /bulk-import/repositories
          # end of fab config
          appIcons:
            - name: bulkImportIcon
              importName: BulkImportIcon
          dynamicRoutes:
            - path: /bulk-import/repositories
              importName: BulkImportPage
              menuItem:
                icon: bulkImportIcon
                text: Bulk import

- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-global-floating-
action-button
  disabled: false
  pluginConfig:
    dynamicPlugins:
      frontend:
        red-hat-developer-hub.backstage-plugin-global-floating-action-button:
          mountPoints:
            - mountPoint: application/listener
              importName: DynamicGlobalFloatingActionButton
            - mountPoint: global.floatingactionbutton/config
              importName: NullComponent
              config:
                icon: github
                label: 'Git'
                toolTip: 'Github'
                to: https://github.com/redhat-developer/rhdh-plugins
            - mountPoint: global.floatingactionbutton/config
              importName: NullComponent
              config:
                icon: '<svg viewBox="0 0 250 300" xmlns="http://www.w3.org/2000/svg"
preserveAspectRatio="xMidYMid"><path d="M200.134 0l55.555 117.514-55.555 117.518h-
47.295l55.555-117.518L152.84 0h47.295zM110.08 99.836l20.056-38.092-2.29-
8.868L102.847 0H55.552l48.647 102.898 5.881-3.062zm17.766 74.433l-17.333-39.034-
6.314-3.101-48.647 102.898h47.295l25-52.88v-7.883z" fill="#40B4E5"/><path d="M152.842
235.032L97.287 117.514 152.842 0h47.295l-55.555 117.514 55.555 117.518h-47.295zm-
97.287 0L0 117.514 55.555 0h47.296L47.295 117.514l55.556 117.518H55.555z"
```

```
fill="#003764"/></svg>'
                label: 'Quay'
                showLabel: true
                toolTip: 'Quay'
                to: 'https://quay.io'
```

frontend:mountPoints:importName

(Required) The import name with an associated component to the mount point.

- To configure a floating action button to display only on specific pages, configure the **global.floatingactionbutton/config** mount point in the **backstage-plugin-global-floating-action-button** plugin and set the **visibleOnPaths** property as shown in the following example:

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-bulk-import
  disabled: false
  pluginConfig:
    dynamicPlugins:
      frontend:
        red-hat-developer-hub.backstage-plugin-bulk-import:
          # start of fab config
          mountPoints:
            - mountPoint: global.floatingactionbutton/config
              importName: BulkImportPage 1
              config:
                slot: 'page-end'
                icon: <svg xmlns="http://www.w3.org/2000/svg" enable-background="new 0 0 24
24" height="24px" viewBox="0 0 24 24" width="24px" fill="#e8eaed"><g><rect fill="none"
height="24" width="24"/></g><g><path d="M11,7L9.6,8.4l2.6,2.6H2v2h10.2l-2.6,2.6L11,17l5-
5L11,7z M20,19h-8v2h8c1.1,0,2-0.9,2-2V5c0-1.1-0.9-2-2-2h-8v2h8V19z"/></g></svg>
                label: 'Bulk import'
                toolTip: 'Register multiple repositories in bulk'
                to: /bulk-import/repositories
                visibleOnPaths: ['/catalog', '/settings']
          # end of fab config
          appIcons:
            - name: bulkImportIcon
              importName: BulkImportIcon
          dynamicRoutes:
            - path: /bulk-import/repositories
              importName: BulkImportPage
              menuItem:
                icon: bulkImportIcon
                text: Bulk import
```

frontend:mountPoints:importName

Enter the import name with an associated component to the mount point.

- To hide a floating action button on specific pages, configure the **global.floatingactionbutton/config** mount point in the **backstage-plugin-global-floating-action-button** plugin and set the **excludeOnPaths** property as shown in the following example:

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-bulk-import
  disabled: false
  pluginConfig:
    dynamicPlugins:
```

```
frontend:
  red-hat-developer-hub.backstage-plugin-bulk-import:
    # start of fab config
    mountPoints:
      - mountPoint: global.floatingactionbutton/config
        importName: BulkImportPage [1]
        config:
          slot: 'page-end'
          icon: <svg xmlns="http://www.w3.org/2000/svg" enable-background="new 0 0 24 24" height="24px" viewBox="0 0 24 24" width="24px" fill="#e8eaed"><g><rect fill="none" height="24" width="24"/></g><g><path d="M11,7L9.6,8.4l2.6,2.6H2v2h10.2l-2.6,2.6L11,17l5-5L11,7z M20,19h-8v2h8c1.1,0,2-0.9,2-2V5c0-1.1-0.9-2-2-2h-8v2h8V19z"/></g></svg>
          label: 'Bulk import'
          toolTip: 'Register multiple repositories in bulk'
          to: /bulk-import/repositories
          excludeOnPaths: ['/bulk-import']
    # end of fab config
    appIcons:
      - name: bulkImportIcon
        importName: BulkImportIcon
    dynamicRoutes:
      - path: /bulk-import/repositories
        importName: BulkImportPage
        menuItem:
          icon: bulkImportIcon
          text: Bulk import
```

frontend:mountPoints:importName

Enter the import name with an associated component to the mount point.

7.2. TRANSLATION SUPPORT

The Global Floating Action Button plugin supports internationalization (i18n) through translation keys. You can use **labelKey** and **toolTipKey** properties to provide translation keys instead of static text.

Example for using translation keys in dynamic configuration:

```
- package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-global-floating-action-button
  disabled: false
  pluginConfig:
    dynamicPlugins:
      frontend:
        red-hat-developer-hub.backstage-plugin-global-floating-action-button:
          translationResources:
            - importName: globalFloatingActionButtonTranslations
              ref: globalFloatingActionButtonTranslationRef
          mountPoints:
            - mountPoint: application/listener
              importName: DynamicGlobalFloatingActionButton
            - mountPoint: global.floatingactionbutton/config
              importName: NullComponent
              config:
                icon: github
                label: 'GitHub' # Fallback text
          labelKey: 'fab.github.label' # Translation key
          toolTip: 'GitHub Repository' # Fallback text
          toolTipKey: 'fab.github.tooltip' # Translation key
          to: https://github.com/redhat-developer/rhdh-plugins
      - mountPoint: global.floatingactionbutton/config
        importName: NullComponent
        config:
          color: 'success'
          icon: search
          label: 'Create' # Fallback text
          labelKey: 'fab.create.label' # Translation key
          toolTip: 'Create entity' # Fallback text
          toolTipKey: 'fab.create.tooltip' # Translation key
          to: '/create'
          showLabel: true
```

7.3. ENABLING FLOATING ACTION BUTTON LOCALIZATION IN RHDH

You can enable translation key support for floating action buttons, so that users can onboard in their preferred language. In Developer Hub, all existing and newly created floating action buttons support localization using dedicated translation keys.

The Global Floating Action Button plugin supports internationalization (i18n) through translation keys. You can use **labelKey** and **toolTipKey** properties to provide translation keys instead of static text.

The plugin provides the following built-in translation keys organized under the **fab** namespace:

- **fab.create.label** - "Create"
- **fab.create.tooltip** - "Create entity"
- **fab.docs.label** - "Docs"
- **fab.docs.tooltip** - "Documentation"
- **fab.apis.label** - "APIs"
- **fab.apis.tooltip** - "API Documentation"
- **fab.github.label** - "GitHub"
- **fab.github.tooltip** - "GitHub Repository"
- **fab.bulkImport.label** - "Bulk Import"
- **fab.bulkImport.tooltip** - "Register multiple repositories in bulk"
- **fab.quay.label** - "Quay"
- **fab.quay.tooltip** - "Quay Container Registry"

The plugin includes translations for the following supported languages:

- English (default)
- French (fr)

To ensure backward compatibility while providing translation support when available, the following order is used to resolve string translations:

1. If the **labelKey** is provided, the plugin will attempt to resolve the translation key
2. If the translation key is found, it will be used as the label
3. If the translation key is not found, the plugin will fall back to the label property

NOTE

The same logic applies to **toolTipKey** and **toolTip**.

7.3.1. Internal translation implementation

The plugin uses a centralized translation system where:

- The **useTranslation()** hook is called in components that render floating action buttons to ensure proper translation context initialization
- The translation function (**t**) is passed down to child components that need to resolve translation keys
- This internal architecture prevents infinite re-render loops and ensures stable component rendering
- All components that use **CustomFab** must provide the translation function as a prop

NOTE

When extending or modifying the plugin components, ensure that the **useTranslation()** hook is called in parent components and the **t** prop is passed to **CustomFab** instances to maintain proper translation functionality and prevent rendering issues.

7.4. FLOATING ACTION BUTTON PARAMETERS

Use the parameters as shown in the following table to configure your floating action button plugin.

Table 7.1. Floating action button parameters

Name	Description	Type	Default value	Required
slot	Position of the floating action button. Valid values: **PAGE_END**, **BOTTOM_LEFT**	**enum**	**PAGE_END**	No
label	Name of the floating action button	**String**	Not applicable	Yes

Name	Description	Type	Default value	Required
labelKey	Translation key for the label. If provided, will be used instead of label when translations are available.	**String**	Not applicable	No
icon	Icon of the floating action button. Recommended to use filled icons from the Material Design library. You can also use an svg icon. For example: **`<svg xmlns="http://www.w3.org/2000/svg" enable-background="new 0 0 24 24" height="24px" viewBox="0 0 24 24" width="24px" fill="#e8eaed"><g><rect fill="none" height="24" width="24"/></g><g><path d="M11,7L9.6,8.4l2.6,2.6H2v2h10.2l-2.6,2.6L11,17l5-5L11,7z M20,19h-8v2h8c1.1,0,2-0.9,2-2V5c0-1.1-0.9-2-2-2h-8v2h8V19z"/></g></svg>`**	**String**, **React.ReactElement**, **SVG image icon**, **HTML image icon**	Not applicable	No
showLabel	Display of the label next to your icon	**Boolean**	Not applicable	No
size	Size of the floating action button	**small**, **medium**, **large**	**medium**	No

Name	Description	Type	Default value	Required
color	Color of the component. It supports both default and custom theme colors, that are added from the Palette Getting started guide.	**default**, **error**, **info**, **inherit**, **primary**, **secondary**, **success**, **warning**	**default**	No
onClick	Performed action when selecting a floating action button	**React.MouseEventHandler**	Not applicable	No
to	Link that opens when selecting a floating action button	**String**	Not applicable	No
toolTip	Text that appears when hovering over a floating action button	**String**	Not applicable	No
toolTipKey	Translation key for the tooltip. If provided, will be used instead of toolTip when translations are available.	**String**	Not applicable	No
priority	Order of the floating action buttons displayed in the submenu. A larger value means higher priority.	**number**	Not applicable	No
visibleOnPaths	Display floating action button on the specified paths	**string[]**	Display floating action button on all paths	No
excludeOnPaths	Hide floating action button on the specified paths	**string[]**	Display floating action button on all paths	No

NOTE

If multiple floating button actions are assigned to the same **slot** value, the floating buttons are displayed as submenu options within the main floating action button.

CHAPTER 8. CUSTOMIZING THE QUICKSTART PLUGIN

8.1. ABOUT QUICKSTARTS

The Quickstart plugin provides guided onboarding for users of Red Hat Developer Hub. It displays a customizable drawer interface with interactive quickstart steps that help users get familiar with the platform.

NOTE

If RBAC is not enabled, Quickstart is only accesible to users with administrator permissions.

The Quickstart plugin is enabled by default and includes the following components:

Set up authentication
: Set up secure login credentials to protect your account from unauthorized access.

Configure RBAC
: Assign roles and permissions to control who can view, create, or edit resources, ensuring secure and efficient collaboration.

Configure Git
: Connect your Git providers, such as GitHub to manage code, automate workflows, and integrate with platform features.

Manage plugins
: Browse and install extensions to add features, connect with external tools, and customize your experience.

8.2. MANAGE USER ACCESS TO QUICKSTARTS BY USING ROLE-BASED ACCESS CONTROL (RBAC)

You can manage user access to Quickstarts by using RBAC to define user roles that use the following logic in your RBAC configuration:

- If RBAC is enabled (**permission.enabled: true**), the system determines user roles based on permissions, as follows:
  - Users with **policy.entity.create** permission are assigned the admin role.
  - Users without this permission are assigned the developer role.

NOTE

If RBAC is disabled (**permission.enabled: false**) or not configured, users are assumed to be platform engineers setting up Red Hat Developer Hub (RHDH) and are assigned the admin role.

The following two roles are supported for defining access to Quickstarts:

admin
: Platform engineers, administrators, and users with elevated permissions

developer

Regular developers and users with standard permissions

The following behavior applies when you use RBAC to assign roles for your Quickstarts:

- Quickstart items without a **roles** property default to the admin role.
- Items can specify multiple roles, for example, admin and developer.
- Users see Quickstart items that match their assigned role.

Example configuring RBAC for a Quickstart in your app-config.yaml file

```
permission:
  enabled: true

app:
  quickstart:
    - title: 'Platform Configuration'
      titleKey: steps.platformConfiguration.title
      roles: ['admin']
      # Only admins see this
    - title: 'Getting Started as Developer'
      titleKey: steps.gettingStarted.title
      roles: ['developer']
      # Only developers see this
    - title: 'Universal Welcome Guide'
      titleKey: steps.universalWelcome.title
      roles: ['admin', 'developer']
      # Both user roles see this
```

8.3. CUSTOMIZING YOUR RED HAT DEVELOPER HUB QUICKSTART

As an administrator, you can configure the Red Hat Developer Hub Quickstart plugin to create customized onboarding for your Developer Hub users.

Prerequisites

You must have administrator permissions.

Procedure

1. Update your **app-config.yaml** with the following code:

```
app:
  quickstart:
    - title: 'Welcome to Developer Hub'
      description: 'Learn the basics of navigating the Developer Hub interface'
      icon: 'home'
      roles: ['admin', 'developer'] # Show to both roles
      cta:
        text: 'Get Started'
        link: '/catalog'
    - title: 'Create Your First Component'
      description: 'Follow our guide to register your first software component'
      icon: 'code'
      roles: ['admin', 'developer'] # Show to both roles
      cta:
        text: 'Create Component'
        link: '/catalog-import'
    - title: 'Explore Templates'
      description: 'Discover available software templates to bootstrap new projects'
      icon: 'template'
      roles: ['admin', 'developer'] # Show to both roles
      cta:
        text: 'Browse Templates'
        link: '/create'
```

where:

title

Enter the display title for the quickstart step.

description

Enter the brief description of what the step covers.

icon

(Optional) Enter the icon identifier. You can use a full image URL, a valid SVG path, or one of the following common keys:

- **home**
- **group**
- **category**
- **extension**
- **school**
- **add**
- **list**
- **layers**
- **star**
- **favorite**
- **bookmarks**
- **queryStats**
- **chart**
- **business**
- **storefront**
- **folder**

- **cloud**
- **monitor**
- **feedback**
- **validate**
- **security**
- **help**
- **support**
- **quickstart**
- **notifications**
- **manageAccounts**
- **logout**
- **developerHub**
- **account**
- **admin**
- **roles**: Optional: Enter an array of user roles that must see this quickstart item. Supported values: **['admin', 'developer']**. If not specified, defaults to **['admin']**.
- **cta**
- **text**: Optional: Enter the CTA button text.
- **link**: Optional: Enter the CTA target URL or route.

8.3.1. Disabling the Quickstart plugin

The Quickstart plugin is pre-loaded in Developer Hub with basic configuration properties, and enabled by default.

Procedure

- To disable the Quickstart plugin, set the disabled property to **true** as shown in the following code:

```
global:
  dynamic:
    includes:
      - dynamic-plugins.default.yaml
    plugins:
      - package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-quickstart
        disabled: true
```

8.4. USING QUICKSTART ONBOARDING STEPS

You can use the Quickstart onboarding steps to learn more about the administrator features of RHDH.

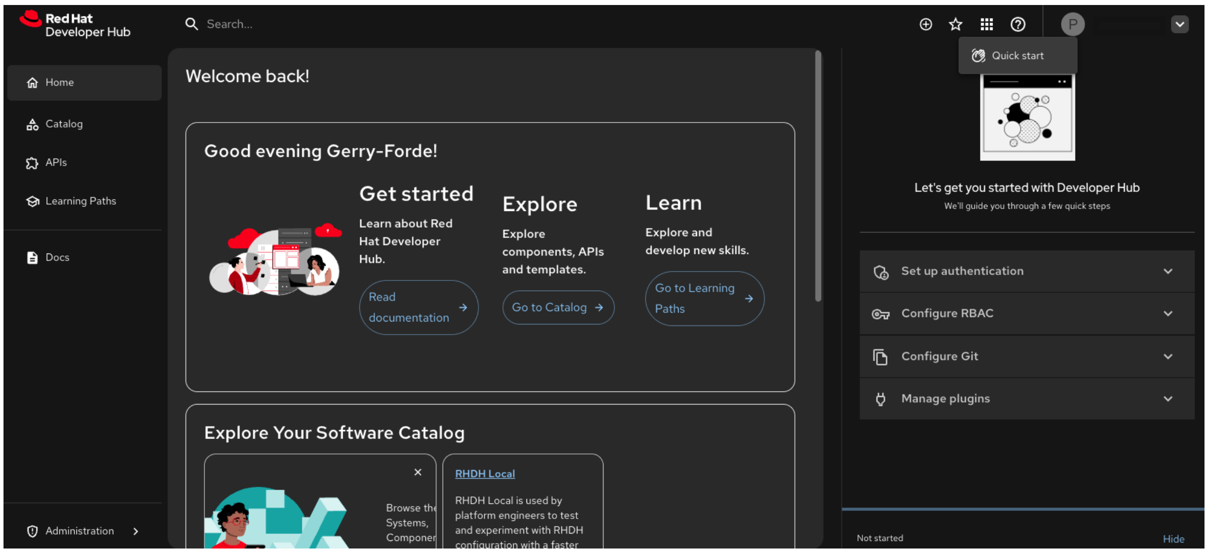
Prerequisites

- (Optional) If RBAC is enabled, you must have administrator permissions to access to the Quickstart feature.

Procedure

To start a Quickstart step in Red Hat Developer Hub, complete the following steps:

1. In your RHDH navigation menu, click the **Help** (**?**) icon.
2. In the dropdown menu, click **Quick start**.
3. Select the Quickstart step that you would like to begin.
4. To close the Quickstart drawer, click **Hide**.


Red Hat
Developer Hub
Search...
Home
Catalog
APIs
Learning Paths
Docs
Administration
Quick start
Welcome back!
Good evening Gerry-Forde!
Get started
Learn about Red Hat Developer Hub.
Read documentation
Explore
Explore components, APIs and templates.
Go to Catalog
Learn
Explore and develop new skills.
Go to Learning Paths
Explore Your Software Catalog
Browse the Systems, Componen
RHDH Local
Let's get you started with Developer Hub
We'll guide you through a few quick steps
Set up authentication
Configure RBAC
Configure Git
Manage plugins
Not started
Hide

RHDH Local is used by platform engineers to test and experiment with RHDH configuration with a faster

NOTE

Your overall progress is tracked and displayed as a progress bar and a progress percentage in the Quickstart footer.

8.5. ENABLING QUICKSTART LOCALIZATION IN RHDH

You can enable translation key support for Quickstart titles, descriptions, and CTAs, so that users can onboard in their preferred language. In Developer Hub, all existing and newly created Quickstart steps support localization using dedicated translation keys (**titleKey**, **descriptionKey**, **cta.textKey**).

NOTE

If a translation key is present but the corresponding localized string is missing, the system defaults to the original text defined in the Quickstart configuration (**title**, **description**, **text**). If no translation key is defined at all, the original text is displayed.

Prerequisites

- You have enabled localization in your RHDH application.

Procedure

1. For **all** Quickstart steps (both existing and new) in your configuration file, you must define both the original text and the new localization keys. For example, in the **quickstart** section of your custom **app-config.yaml** file, add the **titleKey**, **descriptionKey**, and **textKey** values, as follows:

   app-config.yaml fragment

   ```
   app:
     quickstart:
       # Existing Quickstart steps should also be updated with keys
       - title: 'Setup Authentication'
         titleKey: steps.setupAuth.title
         description: 'Learn the basics of navigating the Developer Hub interface'
         descriptionKey: steps.setupAuth.description
         icon: 'home'
         cta:
           text: 'Get Started'
           textKey: steps.setupAuth.ctaTitle
           link: '/catalog'
   # ...
   ```

   where:

   title

   (Mandatory) Fallback for the title.

   titleKey

   Key for the translated title.

   description

   (Mandatory) Fallback for the description.

   descriptionKey

   Key for the translated description.

   text

   (Mandatory) Fallback for the CTA text.

   textKey

   Key for the translated CTA text.

2. In your **dynamic-plugins.yaml** file, add the **translationResources** section to your **red-hat-developer-hub-backstage-plugin-quickstart** configuration, as follows:

   app-config.yaml fragment

   ```
   plugins:
     - package: ./dynamic-plugins/dist/red-hat-developer-hub-backstage-plugin-quickstart
       disabled: false
       pluginConfig:
         dynamicPlugins:
           frontend:
   ```

```
        red-hat-developer-hub.backstage-plugin-quickstart:
          # translationResources definition is required for translations to work
          translationResources:
            - importName: quickstartTranslations
              ref: quickstartTranslationRef
          # ... other configurations like mountPoints ...
```

where:

importName

Enter the name used to reference the import.

ref

Reference to the resource definition.

3. In your translation file, map the keys from the first step to the localized strings for each supported language.

allTranslations.json fragment

```
"plugin.quickstart": {
  "en": {
    "steps.setupAuth.title": "Manage plugins EN",
    "steps.setupAuth.description": "EN Browse and install extensions to add features, connect with external tools, and customize your experience.",
    "steps.setupAuth.ctaTitle": "Start"
  },
  "fr": {
    "steps.setupAuth.title": "Gérer les plugins FR",
    "steps.setupAuth.description": "FR Parcourez et installez des extensions pour ajouter des fonctionnalités, vous connecter à des outils externes et personnaliser votre expérience.",
    "steps.setupAuth.ctaTitle": "Commencer"
  }
}
```

CHAPTER 9. CUSTOMIZING THE TECH RADAR PAGE IN RED HAT DEVELOPER HUB

In Red Hat Developer Hub, the Tech Radar page is provided by the **tech-radar** dynamic plugin, which is disabled by default. For information about enabling dynamic plugins in Red Hat Developer Hub see Configuring dynamic plugins.

In Red Hat Developer Hub, you can configure Learning Paths by passing the data into the **app-config.yaml** file as a proxy. The base Tech Radar URL must include the **/developer-hub/tech-radar** proxy.

NOTE

Due to the use of overlapping **pathRewrites** for both the **tech-radar** and **homepage** quick access proxies, you must create the **tech-radar** configuration (**^api/proxy/developer-hub/tech-radar**) before you create the **homepage** configuration (**^/api/proxy/developer-hub**).

For more information about customizing the Home page in Red Hat Developer Hub, see Customizing the Home page in Red Hat Developer Hub .

You can provide data to the Tech Radar page from the following sources:

- JSON files hosted on GitHub or GitLab.
- A dedicated service that provides the Tech Radar data in JSON format using an API.

9.1. CUSTOMIZING THE TECH RADAR PAGE BY USING A JSON FILE

For ease of use and simplicity, you can configure the Tech Radar page by using a hosted JSON file.

Prerequisites

- You have specified the data sources for the Tech Radar plugin in the **integrations** section of the **app-config.yaml** file. For example, you have enabled Developer Hub integration with GitHub.
- You have enabled the **./dynamic-plugins/dist/backstage-community-plugin-tech-radar** and **/dynamic-plugins/dist/backstage-community-plugin-tech-radar-backend-dynamic** plugins.

Procedure

1. Publish the JSON file containing your Tech Radar data to a web server, such as GitHub or Gitlab. You can find an example at https://raw.githubusercontent.com/backstage/community-plugins/main/workspaces/tech-radar/plugins/tech-radar-common/src/sampleTechRadarResponse.json.
2. Configure Developer Hub to access the Tech Radar data from the hosted JSON files, by adding the following to the **app-config.yaml** file:

```
techRadar:
  url: <tech_radar_data_url>
```

<tech_radar_data_url>

Enter the Tech Radar data hosted JSON URL.

9.2. CUSTOMIZING THE TECH RADAR PAGE BY USING A CUSTOMIZATION SERVICE

For advanced scenarios, you can host your Red Hat Developer Hub customization service to provide data to all configurable Developer Hub pages, such as the Tech Radar page. You can even use a different service for each page.

Prerequisites

- You have specified the data sources for the Tech Radar plugin in the **integrations** section of the **app-config.yaml** file. For example, you have enabled Developer Hub integration with GitHub.
- You have enabled the **./dynamic-plugins/dist/backstage-community-plugin-tech-radar** and **/dynamic-plugins/dist/backstage-community-plugin-tech-radar-backend-dynamic** plugins.

Procedure

1. Deploy your Developer Hub customization service on the same OpenShift Container Platform cluster as your Developer Hub instance. You can find an example at **red-hat-developer-hub-customization-provider**, that provides the same data as default Developer Hub data. The customization service provides a Tech Radar data URL such as: **http://*<rhdh-customization-provider>*/tech-radar**.
2. Add the dedicated service as an allowed host by adding the following code to the **app-config.yaml** file:

```
backend:
  reading:
      allow:
        - host: '<rhdh_customization_provider_base_url>'
```

   <rhdh_customization_provider_base_url>

   Enter the base URL of your Tech Radar data URL, such as: ***<rhdh-customization-provider>***.

3. Add the following to the **app-config.yaml** file:

```
techRadar:
   url: <tech_radar_data_url>
```

   <tech_radar_data_url>

   Enter your Tech Radar data URL, such as: **http://*<rhdh-customization-provider>*/tech-radar**.

CHAPTER 10. CUSTOMIZING RED HAT DEVELOPER HUB APPEARANCE

By modifying the visual aspects of the interface, organizations can align Red Hat Developer Hub with their branding guidelines and improve the overall user experience.

The following default theme configurations are available for Red Hat Developer Hub:

The Red Hat Developer Hub theme

Default theme configurations to make your developer portal look like a standard Red Hat Developer Hub instance. For more information, see Section 10.9, “Default Red Hat Developer Hub theme”

The Backstage theme

Default theme configurations to make your developer portal look like a standard Backstage instance. For more information, see Section 10.10, “Default Backstage theme”

You can change or disable particular parameters in a default theme or create a fully customized theme by modifying the **app-config.yaml** file. From the **app-config.yaml** file, you can customize common theme components, including the following components:

- Company name and logo
- Font color, size, and style of text in paragraphs, headings, headers, and buttons
- Header color, gradient, and shape
- Button color
- Navigation indicator color

You can also customize some components from the Developer Hub GUI, such as the theme mode (**Light Theme**, **Dark Theme**, or **Auto**).

10.1. CUSTOMIZING THE THEME MODE FOR YOUR DEVELOPER HUB INSTANCE

You can choose one of the following theme modes for your Developer Hub instance:

- **Light**
- **Dark**
- **Auto**

NOTE

In Developer Hub, theme configurations are used to change the look and feel of different UI components. So, you might notice changes in different UI components, such as buttons, tabs, sidebars, cards, and tables along with some changes in background color and font used on the RHDH pages.

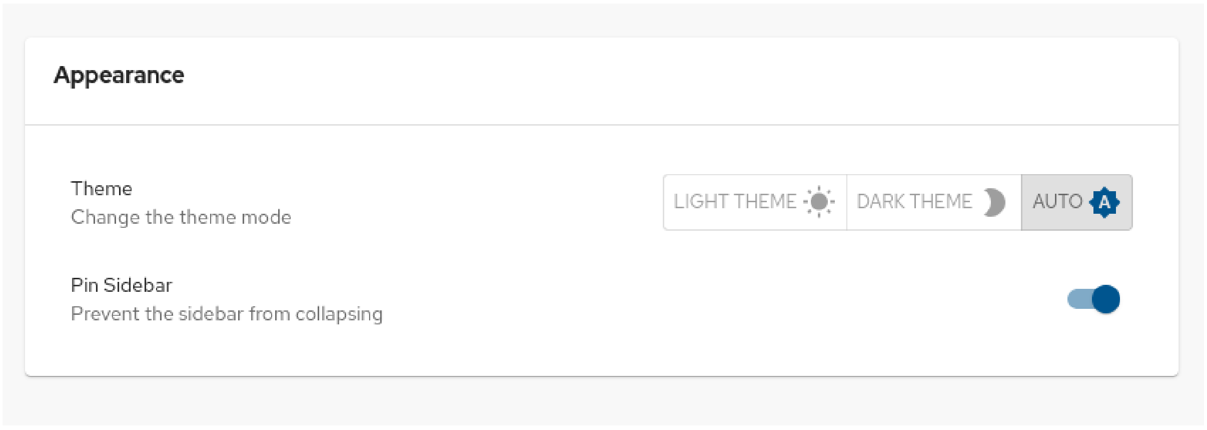
The default theme mode is **Auto**, which automatically sets the light or dark theme based on your system preferences.

Prerequisites

- You are logged in to the Developer Hub web console.

Procedure

1. From the Developer Hub web console, click **Settings**.
2. From the **Appearance** panel, click **Light**, **Dark**, or **Auto** to change the theme mode.



Appearance

Theme
Change the theme mode

Pin Sidebar
Prevent the sidebar from collapsing

10.2. CUSTOMIZING THE BRANDING LOGO OF YOUR DEVELOPER HUB INSTANCE

You can customize the branding logo of your Developer Hub instance by configuring the **branding** section in the **app-config.yaml** file, as shown in the following example:

```
app:
  branding:
    fullLogo: ${BASE64_EMBEDDED_FULL_LOGO} (1)
    iconLogo: ${BASE64_EMBEDDED_ICON_LOGO} (2)
```

fullLogo

Enter the logo on the expanded (pinned) sidebar as a base64 encoded image.

iconLogo

Enter the logo on the collapsed (unpinned) sidebar as a base64 encoded image.
You can format the **BASE64_EMBEDDED_FULL_LOGO** environment variable as follows:

```
BASE64_EMBEDDED_FULL_LOGO: "data:_<media_type>_;base64,<base64_data>"
```

The following example demonstrates how to customize the **BASE64_EMBEDDED_FULL_LOGO** using the **data:_<media_type>_;base64,*<base64_data>*** format:

```
SVGLOGOBASE64=$(base64 -i logo.svg)
BASE64_EMBEDDED_FULL_LOGO="data:image/svg+xml;base64,$SVGLOGOBASE64"
```

Replace **image/svg+xml** with the correct media type for your image (for example, **image/png** and **image/jpeg**), and adjust the file extension accordingly. As a result, you can embed the logo directly without referencing an external file.

You can also customize the width of the branding logo by setting a value for the **fullLogoWidth** field in the **branding** section, as shown in the following example:

```
app:
  branding:
    fullLogoWidth: 110px
# ...
```

fullLogoWidth

The default value for the logo width is **110px**. The following units are supported: **integer**, **px**, **em**, **rem**, percentage.

10.3. ABOUT THE SIDEBAR MENU ITEMS FOR YOUR DEVELOPER HUB INSTANCE

The sidebar menu in Red Hat Developer Hub consists of two main parts that you can configure:

Dynamic plugin menu items

Your preferences and your active plugins define dynamically one part of the sidebar menu.

Main menu items

The core navigation structure of sidebar is static.

- **Dynamic plugin menu items**: These items are displayed beneath the main menu and can be customized based on the plugins installed. The main menu items section is dynamic and can change based on your preferences and installed plugins.

10.3.1. Customizing the sidebar menu items for your Developer Hub instance

Customize the main menu items using the following steps:

Procedure

1. Open the **app-config.yaml** file.
   a. To customize the order and parent-child relationships for the main menu items, use the **dynamicPlugins.frontend.default.main-menu-items.menuItems** field.
   b. For dynamic plugin menu items, use the **dynamicPlugins.frontend.<package_name>.menuItems** field.

Example app-config.yaml file

```
dynamicPlugins:
  frontend:
    default.main-menu-items:
        menuItems:
          default.home:
            title: Home
            icon: home
            priority: 100
            enabled: true
          default.my-group:
```

```
      title: My Group
      icon: group
      priority: 90
      enabled: true
    default.catalog:
      title: Catalog
      icon: category
      to: catalog
      priority: 80
      enabled: true
    default.apis:
      title: APIs
      icon: extension
      to: api-docs
      priority: 70
      enabled: true
    default.learning-path:
      title: Learning Paths
      icon: school,
      to: learning-paths
      priority: 60
      enabled: true
    default.create:
      title: Self-service
      icon: add
      to: create
      priority: 50
      enabled: true
```

10.3.2. Enabling sidebar menu items localization in RHDH

You can add translation key support for sidebar menu items, so that users can onboard in their preferred language. In Developer Hub, all existing and newly created sidebar menu items support localization using the **titleKey** translation key.

NOTE

If a translation key is present but the corresponding localized string is missing, the system defaults to the original text defined in the sidebar menu items configuration (**title**). If no translation key is defined at all, the original text is displayed.

Prerequisites

- You have enabled localization in your RHDH application.

Procedure

1. For sidebar menu items in your configuration file, you must define both the original text and the new localization keys. For example, in the **dynamicPlugins.frontend.default.main-menu-items.menuItems.default.favorites** section of your **app-config.yaml** file, add the **titleKey**, as follows:

   Example app-config.yaml fragment

```
dynamicPlugins:
  frontend:
    default.main-menu-items:
        menuItems:
          default.favorites:
            title: Favorites
            titleKey: menuItem.favorites
            icon: favorite
            priority: 100
            enabled: true
```

2. In your translation file, map the **titleKey** from the first step to the localized strings for each supported language.

Example allTranslations.json fragment

```
{
  "rhdh": {
    "en": {
      "menuItem.favorites": "Favorites"
    },
    "fr": {
      "menuItem.favorites": "Favoris"
    }
  }
}
```

10.3.3. Configuring a dynamic plugin menu item for your Developer Hub instance

Configure a dynamic plugin menu item using the following step:

Procedure

- In the **app-config.yaml** file, update the **menuItems** section of your *<plugin_name>* plugin. For example:

```
dynamicPlugins:
  frontend:
    _<plugin_name>_:
      menuItems:
        <menu_item_name>:
          icon: # home | group | category | extension | school | _<my_icon>_
          title: _<plugin_page_title>_
          priority: 10
          parent: favorites
          enabled: true
```

<plugin_name>

Enter the plugin name. This name is the same as the **scalprum.name** key in the **package.json** file.

<menu_item_name>

Enter a unique name in the main sidebar navigation for either a standalone menu item or a parent menu item. If this field specifies a plugin menu item, the name of the menu item must match the name using in the corresponding path in **dynamicRoutes**. For example, if **dynamicRoutes** defines **path: /my-plugin**, then **menu_item_name** must be defined as **my-plugin**.

icon

(Optional) Enter the icon name. You can use any of the following icons:

- Default icons, such as **home**, **group**, **category**, **extension**, and **school**. To use default icons, set the icon as an (**" "**) empty string.
- A custom icon, where *<my_icon>* specifies the name of your custom icon
- An SVG icon, such as: **icon: <svg width="20px" height="20px" viewBox="0 0 512 512" xmlns="http://www.w3.org/2000/svg" fill="#ffffff">...</svg>**
- An HTML image, such as: **icon: https://img.icons8.com/ios-glyphs/20/FFFFFF/shop.png**

title

(Optional) Enter the menu item title. Omit it when the title is already specified in the **dynamicRoutes** configuration under **menuItem.text**. To hide the title from the sidebar, set the title as an (**" "**) empty string.

priority

(Optional) Enter an integer value to set the order in which menu items appear in the sidebar.

parent

(Optional) Enter the parent menu item under which the current item is nested. If this field is used, the parent menu item must be defined elsewhere in the **menuItems** configuration of any enabled plugin. You can define this field for each section.

enabled

(Optional) Enter **false** to hide the menu item from the sidebar. Enter **true** to display the menu item in the sidebar.

```
dynamicPlugins:
  frontend:
    _<package_name>_:
      dynamicRoutes:
        - path: /my-plugin
          module: CustomModule
          importName: FooPluginPage
          menuItem:
            icon: fooIcon
            text: Foo Plugin Page
      menuItems:
        my-plugin:
          priority: 10
          parent: favorites
        favorites:
          icon: favorite
          title: Favorites
          priority: 100
```

my-plugin

Enter the value of the **path** field in **dynamicRoutes**.

priority

Enter an integer value to set the order in which plugins appear in the parent menu item.

parent

Enter the parent menu item id to nest this plugin under, such as **favorites**.

favorites

Configuration for the parent menu item.

title

Displays the title name for the parent menu item.

10.3.4. Modifying or adding a custom menu items for your Developer Hub instance

Modify a main menu item or add a custom menu item using the following step:

Procedure

- In the **app-config.yaml** file, add a section to the **default.main-menu-items** > **menuItems** section. Use the **default.** prefix to identify the key as a main menu item.

```
dynamicPlugins:
  frontend:
    default.main-menu-items:
      menuItems:
        default._<menu_group_parent_item_name>_:
          icon: # home | group | category | extension | school | _<my_icon>_
          title: _<menu_group_parent_title>_
          priority: 10
        default._<menu_item_name>_:
          parent: _<menu_group_parent_item_name>_
          icon:  # home | group | category | extension | school | _<my_icon>_
          title: _<my_menu_title>_
          to: _<path_to_the_menu_target_page>_
          priority: 100
          enabled: true
```

default.*<menu_group_parent_item_name>*

(Optional) Enter the menu group parent item name to configure static main menu items. If no **default.*<menu_item_name>*** has a **parent** value set, this field is not needed.

icon

Enter the menu icon. Required for parent menu items.

title

Enter the menu group title. Required for parent menu items.

priority

(Optional) Enter the order of this menu item within its menu level.

default.*<menu_item_name>*

Enter the menu item name for which you want to override the default value. Add the **default.** prefix to identify a main menu item.

parent

(Optional) Enter the parent menu item for this item. Required if <menu_item_name> is specified as the child of any menu items.

icon

(Optional) Enter the menu icon. To use the default icon, set the icon as an (**" "**) empty string.

title

(Optional) Enter the menu group title. Only required for adding a new custom main menu item. To hide a default main menu item title from the sidebar, set the title as an (**" "**) empty string.

to

(Optional) Enter the path that the menu item navigates to. If it is not set, it defaults to the home page.

priority

(Optional) Enter the order of this menu item within its menu level.

enabled

(Optional) If this field is used to display the menu item in the sidebar, set the value to **true**. To hide the menu item from the sidebar, set the value to **false**.

```
default.main-menu-items:
   menuItems:
    default.catalog:
      icon: category
      title: My Catalog
      priority: 5
    default.learning-path:
      title: ''
    default.parentlist:
      title: Overview
      icon: bookmarks
    default.home:
      parent: default.parentlist
    default.references:
      title: References
      icon: school
      to: /references
      enabled: true
```

icon

(Optional) Enter the icon name, such as **category**, bookmarks`, **school**, etc. to change the default icon.

title

Enter an empty string **''** to hide the learning path from the default sidebar.

default.parentlist

Enter the parent menu items.

parent

Enter the parent menu under which to nest the the menu entry, such as **default.parentlist**.

title

Enter the menu entry name, such as **My Catalog**, **Overview** or **References**.

to

Enter the page to redirect to. For example, **default.references** redirects to the **/references** page.

enabled

(Optional) Enter **true** to display the menu item in the sidebar. Enter **false** to hide the menu item from the sidebar.

10.4. CONFIGURING ENTITY TAB TITLES

Red Hat Developer Hub provides a default opinionated tab set for catalog entity views. For consistency with your organization needs, you can rename, reorder, remove, and add tab titles.

Procedure

- For each tab to modify, enter your desired values in the **entityTabs** section in your **app-config.yaml** file:

```
upstream:
  backstage:
    appConfig:
      dynamicPlugins:
        frontend:
         <plugin_name>:
            entityTabs:
              - mountPoint: <mount_point>
                path: <path>
                title: <title>
                priority: <priority>
```

<plugin_name>

Enter the plugin name, such as **backstage-community.plugin-topology**.

mountPoint

Enter the tab mountpoint, such as **entity.page.topology**.

path

Enter the tab path, such as **/topology**.

title

Enter the tab title, such as **Topology**.

priority

Optional.
To reorder tabs, enter the tab priority, such as **42**. Higher priority appears first.

To remove a tab, enter a negative value, such as **-1**.

10.5. CONFIGURING ENTITY DETAIL TAB LAYOUT

Each Red Hat Developer Hub entity detail tab has a default opinionated layout. For consistency with your organization needs, you can change the entity detail tab content when the plugin that contributes the tab content allows a configuration.

Prerequisites

- The plugin that contributes the tab content allows a configuration, such as Developer Hub plugins defining a default configuration in a **config** section.

Procedure

- Copy the plugin default configuration in your **app-config.yaml** file, and change the **layout** properties.

```
global:
  dynamic:
    plugins:
      - package: <package_location>
        disabled: false
        pluginConfig:
          dynamicPlugins:
            frontend:
              <plugin_name>:
                mountPoints:
                  - mountPoint: <mount_point>
                    importName: <import_name>
                    config:
                      layout:
                        gridColumn:
                          lg: span 6
                          xs: span 12
```

package

Enter your package location, such as **./dynamic-plugins/dist/backstage-community-plugin-tekton**.

<plugin_name>

Enter your plugin name, such as: **backstage-community.plugin-tekton**.

mountPoint

Copy the mount point defined in the plugin default configuration, such as: **entity.page.ci/cards**.

importName

Copy the import name defined in the plugin default configuration, such as: **TektonCI**.

layout

Enter your layout configuration. The tab content is displayed in a responsive grid that uses a 12 column-grid and supports different breakpoints (**xs**, **sm**, **md**, **lg**, **xl**) that can be specified for a CSS property, such as **gridColumn**. The example uses 6 of the 12 columns to show two Tekton CI cards side-by-side on large (**lg**) screens (**span 6** columns) and show them among themselves (**xs** and above **span 12** columns).

10.6. CUSTOMIZING THE THEME MODE COLOR PALETTES FOR YOUR DEVELOPER HUB INSTANCE

You can customize the color palettes of the light and dark theme modes in your Developer Hub instance by configuring the **light.palette** and **dark.palette** parameters in the **branding.theme** section of the **app-config.yaml** file, as shown in the following example:

```
app:
  branding:
    theme:
      light:
        palette:
          primary:
            main: <light_primary_color>
          navigation:
            indicator: <light_indicator_color>
        pageTheme:
          default:
            backgroundColor: [<light_background_color_1>, <light_background_color_2>]
      dark:
        palette:
          primary:
            main: <dark_primary_color>
          navigation:
            indicator: <dark_indicator_color>
        pageTheme:
          default:
            backgroundColor: [<dark_background_color_1>, <dark_background_color_2>]
# ...
```

light|dark

Enter the theme name: **light** or **dark**.

palette.primary:main

Enter the palette main primary color, such as **#ffffff** or **white**.

palette.navigation:indicator

Enter the palette navigation indicator color, which is a vertical bar that indicates the selected tab in the navigation panel, such as **#FF0000** or **red**.

pageTheme:default:backgroundColor

Enter the default page theme background color, such as **#ffffff** or **white**.

Additional resources

- Section 10.1, "Customizing the theme mode for your Developer Hub instance"

10.7. CUSTOMIZING THE PAGE THEME HEADER FOR YOUR DEVELOPER HUB INSTANCE

You can customize the header color for the light and dark theme modes in your Developer Hub instance by modifying the **branding.theme** section of the **app-config.yaml** file. You can also customize the page headers for additional Developer Hub pages, such as the **Home**, **Catalog**, and **APIs** pages.

```
app:
  branding:
    theme:
      light:
        palette: {}
        pageTheme:
          default:
            backgroundColor: "<default_light_background_color>"
            fontColor: "<default_light_font_color>"
            shape: none
          apis:
            backgroundColor: "<apis_light_background_color>"
            fontColor: "<apis_light_font_color>"
            shape: none
      dark:
        palette: {}
        pageTheme:
          default:
            backgroundColor: "<default_dark_background_color>"
            fontColor: "<default_dark_font_color>"
            shape: none
# ...
```

light

Enter the theme mode, such as **light** or **dark**.

default

Enter the default page theme configuration

backgroundColor

Enter the page header background color, such as **#ffffff** or **white**.

fontColor

Enter the page header text color, such as **#000000** or **black**.

shape

Enter the page header pattern, such as **wave**, **round**, or **none**. **apis::** Enter the page id to configure, such as **apis** or **home**.

10.8. CUSTOMIZING THE FONT FOR YOUR DEVELOPER HUB INSTANCE

You can configure the **typography** section of the **app-config.yaml** file to change the default font family and size of the page text, as well as the font family and size of each heading level, as shown in the following example:

```
app:
  branding:
    theme:
      light:
        typography:
          fontFamily: "Times New Roman"
          htmlFontSize: 11 # smaller is bigger
          h1:
            fontFamily: "Times New Roman"
            fontSize: 40
          h2:
            fontFamily: "Times New Roman"
            fontSize: 30
          h3:
            fontFamily: "Times New Roman"
            fontSize: 30
          h4:
            fontFamily: "Times New Roman"
            fontSize: 30
          h5:
            fontFamily: "Times New Roman"
            fontSize: 30
          h6:
            fontFamily: "Times New Roman"
            fontSize: 30
      dark:
        typography:
          fontFamily: "Times New Roman"
          htmlFontSize: 11 # smaller is bigger
          h1:
            fontFamily: "Times New Roman"
            fontSize: 40
          h2:
            fontFamily: "Times New Roman"
            fontSize: 30
          h3:
            fontFamily: "Times New Roman"
            fontSize: 30
          h4:
            fontFamily: "Times New Roman"
            fontSize: 30
          h5:
            fontFamily: "Times New Roman"
            fontSize: 30
          h6:
            fontFamily: "Times New Roman"
            fontSize: 30
# ...
```

10.9. DEFAULT RED HAT DEVELOPER HUB THEME

You can use the default Red Hat Developer Hub theme configurations to make your Developer Hub instance look like a standard Red Hat Developer Hub instance. You can also modify the **app-config.yaml** file to customize or disable particular parameters.

10.9.1. Default Red Hat Developer Hub theme color palette

The **app-config.yaml** file uses the following configurations for the default Red Hat Developer Hub color palette:

```
app:
  branding:
    theme:
```

```
light:
  variant: "rhdh"
  mode: "light"
  palette:
    background:
      default: "#F8F8F8"
      paper: "#FFFFFF"
    banner:
      closeButtonColor: "#FFFFFF"
      error: "#E22134"
      info: "#2E77D0"
      link: "#000000"
      text: "#FFFFFF"
      warning: "#FF9800"
    border: "#E6E6E6"
    bursts:
      backgroundColor:
        default: "#7C3699"
      fontColor: "#FEFEFE"
      gradient:
        linear: "linear-gradient(-137deg, #4BB8A5 0%, #187656 100%)"
      slackChannelText: "#ddd"
    errorBackground: "#FFEBEE"
    errorText: "#CA001B"
    gold: "#FFD600"
    highlight: "#FFFBCC"
    infoBackground: "#ebf5ff"
    infoText: "#004e8a"
    link: "#0A6EBE"
    linkHover: "#2196F3"
    mode: "light"
    navigation:
      background: "#222427"
      indicator: "#0066CC"
      color: "#ffffff"
      selectedColor: "#ffffff"
      navItem:
        hoverBackground: "#3c3f42"
      submenu:
        background: "#222427"
    pinSidebarButton:
      background: "#BDBDBD"
      icon: "#181818"
    primary:
      main: "#0066CC"
    secondary:
      main: "#8476D1"
    status:
      aborted: "#757575"
      error: "#E22134"
      ok: "#1DB954"
      pending: "#FFED51"
      running: "#1F5493"
      warning: "#FF9800"
    tabbar:
      indicator: "#9BF0E1"
```

```
        textContrast: "#000000"
        textSubtle: "#6E6E6E"
        textVerySubtle: "#DDD"
        warningBackground: "#F59B23"
        warningText: "#000000"
        text:
          primary: "#151515"
          secondary: "#757575"
        rhdh:
          general:
            disabledBackground: "#D2D2D2"
            disabled: "#6A6E73"
            searchBarBorderColor: "#E4E4E4"
            formControlBackgroundColor: "#FFF"
            mainSectionBackgroundColor: "#FFF"
            headerBottomBorderColor: "#C7C7C7"
            cardBackgroundColor: "#FFF"
            sidebarBackgroundColor: "#212427"
            cardBorderColor: "#C7C7C7"
            tableTitleColor: "#181818"
            tableSubtitleColor: "#616161"
            tableColumnTitleColor: "#151515"
            tableRowHover: "#F5F5F5"
            tableBorderColor: "#E0E0E0"
            tableBackgroundColor: "#FFF"
            tabsBottomBorderColor: "#D2D2D2"
            contrastText: "#FFF"
          primary:
            main: "#0066CC"
            focusVisibleBorder: "#0066CC"
          secondary:
            main: "#8476D1"
            focusVisibleBorder: "#8476D1"
          cards:
            headerTextColor: "#151515"
            headerBackgroundColor: "#FFF"
            headerBackgroundImage: "none"

    dark:
      variant: "rhdh"
      mode: "dark"
      palette:
        background:
          default: "#333333"
          paper: "#424242"
        banner:
          closeButtonColor: "#FFFFFF"
          error: "#E22134"
          info: "#2E77D0"
          link: "#000000"
          text: "#FFFFFF"
          warning: "#FF9800"
        border: "#E6E6E6"
        bursts:
          backgroundColor:
            default: "#7C3699"
      fontColor: "#FEFEFE"
      gradient:
        linear: "linear-gradient(-137deg, #4BB8A5 0%, #187656 100%)"
      slackChannelText: "#ddd"
    errorBackground: "#FFEBEE"
    errorText: "#CA001B"
    gold: "#FFD600"
    highlight: "#FFFBCC"
    infoBackground: "#ebf5ff"
    infoText: "#004e8a"
    link: "#9CC9FF"
    linkHover: "#82BAFD"
    mode: "dark"
    navigation:
      background: "#0f1214"
      indicator: "#0066CC"
      color: "#ffffff"
      selectedColor: "#ffffff"
      navItem:
        hoverBackground: "#3c3f42"
      submenu:
        background: "#0f1214"
    pinSidebarButton:
      background: "#BDBDBD"
      icon: "#404040"
    primary:
      main: "#1FA7F8"
    secondary:
      main: "#B2A3FF"
    status:
      aborted: "#9E9E9E"
      error: "#F84C55"
      ok: "#71CF88"
      pending: "#FEF071"
      running: "#3488E3"
      warning: "#FFB84D"
    tabbar:
      indicator: "#9BF0E1"
    textContrast: "#FFFFFF"
    textSubtle: "#CCCCCC"
    textVerySubtle: "#727272"
    warningBackground: "#F59B23"
    warningText: "#000000"

    rhdh:
      general:
        disabledBackground: "#444548"
        disabled: "#AAABAC"
        searchBarBorderColor: "#57585a"
        formControlBackgroundColor: "#36373A"
        mainSectionBackgroundColor: "#0f1214"
        headerBottomBorderColor: "#A3A3A3"
        cardBackgroundColor: "#292929"
        sidebarBackgroundColor: "#1b1d21"
        cardBorderColor: "#A3A3A3"
        tableTitleColor: "#E0E0E0"
```

```
          tableSubtitleColor: "#E0E0E0"
          tableColumnTitleColor: "#E0E0E0"
          tableRowHover: "#0f1214"
          tableBorderColor: "#515151"
          tableBackgroundColor: "#1b1d21"
          tabsBottomBorderColor: "#444548"
          contrastText: "#FFF"
        primary:
          main: "#1FA7F8"
          focusVisibleBorder: "#ADD6FF"
        secondary:
          main: "#B2A3FF"
          focusVisibleBorder: "#D0C7FF"
        cards:
          headerTextColor: "#FFF"
          headerBackgroundColor: "#0f1214"
          headerBackgroundImage: "none"
```

Alternatively, you can use the following **variant** and **mode** values in the **app-config.yaml** file to apply the previous default configuration:

```
app:
  branding:
    theme:
      light:
        variant: "rhdh"
        mode: "light"
      dark:
        variant: "rhdh"
        mode: "dark"
```

10.9.2. Default Red Hat Developer Hub page themes

The default Developer Hub header color is white in light mode and black in dark mode, as shown in the following **app-config.yaml** file configuration:

```
app:
  branding:
    theme:
      light:
        palette: {}
        defaultPageTheme: default
        pageTheme:
          default:
            backgroundColor: "#ffffff"
      dark:
        palette: {}
        defaultPageTheme: default
        pageTheme:
          default:
            backgroundColor: "#0f1214"
```

10.10. DEFAULT BACKSTAGE THEME

You can use the default Backstage theme configurations to make your Developer Hub instance look like a standard Backstage instance. You can also modify the **app-config.yaml** file to customize or disable particular parameters.

10.10.1. Default Backstage theme color palette

The **app-config.yaml** file uses the following configurations for the default Backstage color palette:

```yaml
app:
  branding:
    theme:
      light:
        variant: "backstage"
        mode: "light"
        palette:
          background:
            default: "#F8F8F8"
            paper: "#FFFFFF"
          banner:
            closeButtonColor: "#FFFFFF"
            error: "#E22134"
            info: "#2E77D0"
            link: "#000000"
            text: "#FFFFFF"
            warning: "#FF9800"
          border: "#E6E6E6"
          bursts:
            backgroundColor:
              default: "#7C3699"
            fontColor: "#FEFEFE"
            gradient:
              linear: "linear-gradient(-137deg, #4BB8A5 0%, #187656 100%)"
            slackChannelText: "#ddd"
          errorBackground: "#FFEBEE"
          errorText: "#CA001B"
          gold: "#FFD600"
          highlight: "#FFFBCC"
          infoBackground: "#ebf5ff"
          infoText: "#004e8a"
          link: "#0A6EBE"
          linkHover: "#2196F3"
          navigation:
            background: "#171717"
            color: "#b5b5b5"
            indicator: "#9BF0E1"
            navItem:
              hoverBackground: "#404040"
            selectedColor: "#FFF"
            submenu:
              background: "#404040"
          pinSidebarButton:
            background: "#BDBDBD"
            icon: "#181818"
          primary:
            main: "#1F5493"
      status:
        aborted: "#757575"
        error: "#E22134"
        ok: "#1DB954"
        pending: "#FFED51"
        running: "#1F5493"
        warning: "#FF9800"
      tabbar:
        indicator: "#9BF0E1"
      textContrast: "#000000"
      textSubtle: "#6E6E6E"
      textVerySubtle: "#DDD"
      warningBackground: "#F59B23"
      warningText: "#000000"

  dark:
    variant: "backstage"
    mode: "dark"
    palette:
      background:
        default: "#333333"
        paper: "#424242"
      banner:
        closeButtonColor: "#FFFFFF"
        error: "#E22134"
        info: "#2E77D0"
        link: "#000000"
        text: "#FFFFFF"
        warning: "#FF9800"
      border: "#E6E6E6"
      bursts:
        backgroundColor:
          default: "#7C3699"
        fontColor: "#FEFEFE"
        gradient:
          linear: "linear-gradient(-137deg, #4BB8A5 0%, #187656 100%)"
        slackChannelText: "#ddd"
      errorBackground: "#FFEBEE"
      errorText: "#CA001B"
      gold: "#FFD600"
      highlight: "#FFFBCC"
      infoBackground: "#ebf5ff"
      infoText: "#004e8a"
      link: "#9CC9FF"
      linkHover: "#82BAFD"
      mode: "dark"
      navigation:
        background: "#424242"
        color: "#b5b5b5"
        indicator: "#9BF0E1"
        navItem:
          hoverBackground: "#404040"
        selectedColor: "#FFF"
        submenu:
          background: "#404040"
      pinSidebarButton:
          background: "#BDBDBD"
          icon: "#404040"
        primary:
          dark: "#82BAFD"
          main: "#9CC9FF"
        secondary:
          main: "#FF88B2"
        status:
          aborted: "#9E9E9E"
          error: "#F84C55"
          ok: "#71CF88"
          pending: "#FEF071"
          running: "#3488E3"
          warning: "#FFB84D"
        tabbar:
          indicator: "#9BF0E1"
        textContrast: "#FFFFFF"
        textSubtle: "#CCCCCC"
        textVerySubtle: "#727272"
        warningBackground: "#F59B23"
        warningText: "#000000"
```

Alternatively, you can use the following **variant** and **mode** values in the **app-config.yaml** file to apply the previous default configuration:

```
app:
  branding:
    theme:
      light:
        variant: "backstage"
        mode: "light"
      dark:
        variant: "backstage"
        mode: "dark"
```

10.10.2. Default Backstage page themes

The default Backstage header color is white in light mode and black in dark mode, as shown in the following **app-config.yaml** file configuration:

```
app:
  branding:
    theme:
      light:
        palette: {}
        defaultPageTheme: default
        pageTheme:
          default:
            backgroundColor: ['#005B4B'] # teal
            fontColor: '#ffffff'
            shape: wave
          documentation:
            backgroundColor: ['#C8077A', '#C2297D'] # pinkSea
            fontColor: '#ffffff'
            shape: wave2
      tool:
        backgroundColor: ['#8912CA', '#3E00EA'] # purpleSky
        fontColor: '#ffffff'
        shape: round
      service:
        backgroundColor: ['#006D8F', '#0049A1'] # marineBlue
        fontColor: '#ffffff'
        shape: wave
      website:
        backgroundColor: ['#0027AF', '#270094'] # veryBlue
        fontColor: '#ffffff'
        shape: wave
      library:
        backgroundColor: ['#98002B', '#8D1134'] # rubyRed
        fontColor: '#ffffff'
        shape: wave
      other:
        backgroundColor: ['#171717', '#383838'] # darkGrey
        fontColor: '#ffffff'
        shape: wave
      app:
        backgroundColor: ['#BE2200', '#A41D00'] # toastyOrange
        fontColor: '#ffffff'
        shape: shapes.wave
      apis:
        backgroundColor: ['#005B4B'] # teal
        fontColor: '#ffffff'
        shape: wave2
      card:
        backgroundColor: ['#4BB8A5', '#187656'] # greens
        fontColor: '#ffffff'
        shape: wave

  dark:
    palette: {}
    defaultPageTheme: default
    pageTheme:
      default:
        backgroundColor: ['#005B4B'] # teal
        fontColor: '#ffffff'
        shape: wave
      documentation:
        backgroundColor: ['#C8077A', '#C2297D'] # pinkSea
        fontColor: '#ffffff'
        shape: wave2
      tool:
        backgroundColor: ['#8912CA', '#3E00EA'] # purpleSky
        fontColor: '#ffffff'
        shape: round
      service:
        backgroundColor: ['#006D8F', '#0049A1'] # marineBlue
        fontColor: '#ffffff'
        shape: wave
      website:
        backgroundColor: ['#0027AF', '#270094'] # veryBlue
        fontColor: '#ffffff'
      shape: wave
    library:
      backgroundColor: ['#98002B', '#8D1134'] # rubyRed
      fontColor: '#ffffff'
      shape: wave
    other:
      backgroundColor: ['#171717', '#383838'] # darkGrey
      fontColor: '#ffffff'
      shape: wave
    app:
      backgroundColor: ['#BE2200', '#A41D00'] # toastyOrange
      fontColor: '#ffffff'
      shape: shapes.wave
    apis:
      backgroundColor: ['#005B4B'] # teal
      fontColor: '#ffffff'
      shape: wave2
    card:
      backgroundColor: ['#4BB8A5', '#187656'] # greens
      fontColor: '#ffffff'
      shape: wave
```

10.11. LOADING A CUSTOM DEVELOPER HUB THEME BY USING A DYNAMIC PLUGIN

You can load a custom Developer Hub theme from a dynamic plugin.

Procedure

1. Export a theme provider function in your dynamic plugin, for example:

   Sample myTheme.ts fragment

   ```
   import { lightTheme } from './lightTheme'; // some custom theme
   import { UnifiedThemeProvider } from '@backstage/theme';
   export const lightThemeProvider = ({ children }: { children: ReactNode }) => (
     <UnifiedThemeProvider theme={lightTheme} children={children} />
   );
   ```

   For more information about creating a custom theme, see Backstage documentation - Creating a Custom Theme.

2. Configure Developer Hub to load the theme in the UI by using the **themes** configuration field:

   app-config.yaml fragment

   ```
   dynamicPlugins:
     frontend:
       example.my-custom-theme-plugin:
         themes:
           - id: light
             title: Light
   ```

```
        variant: light
        icon: someIconReference
        importName: lightThemeProvider
```

id

Enter your theme ID, such as **my_theme**. Enter **dark** to override the default Developer Hub dark theme. Enter **light** to override the default Developer Hub light theme.

Verification

- The theme is available in the Developer Hub **Settings** page.

10.12. CUSTOM COMPONENT OPTIONS FOR YOUR DEVELOPER HUB INSTANCE

There are two component variants that you can use to customize various components of your Developer Hub theme:

- **Patternfly**
- **MUI**

In addition to assigning a component variant to each parameter in the light or dark theme mode configurations, you can toggle the **rippleEffect on** or **off**.

The following code shows the options that you can use in the **app-config.yaml** file to configure the theme components for your Developer Hub instance:

```
app:
  branding:
    theme:
      light:
        options:
          rippleEffect: off / on
          paper: patternfly / mui
          buttons: patternfly / mui
          inputs: patternfly / mui
          accordions: patternfly / mui
          sidebars: patternfly / mui
          pages: patternfly / mui
          headers: patternfly / mui
          toolbars: patternfly / mui
          dialogs: patternfly / mui
          cards: patternfly / mui
          tables: patternfly / mui
          tabs: patternfly / mui
      dark:
        options:
          rippleEffect: off / on
          paper: patternfly / mui
          buttons: patternfly / mui
          inputs: patternfly / mui
          accordions: patternfly / mui
          sidebars: patternfly / mui
```

pages: patternfly / mui
headers: patternfly / mui
toolbars: patternfly / mui
dialogs: patternfly / mui
cards: patternfly / mui
tables: patternfly / mui
tabs: patternfly / mui

CHAPTER 11. CUSTOMIZING THE HOME PAGE

When using your RHDH **app-config.yaml** file, you can do any of the following tasks:

- Customize and extend the default Home page layout with additional cards that appear based on the plugins you have installed and enabled.
- Change quick access links.
- Add, reorganize, and remove the available homepage cards.

11.1. AVAILABLE HOMEPAGE CARDS

As an administrative user, you can easily integrate custom features or content from any installed plugin into your Home page layout. You can use the additional cards available for configuration based on the frontend plugins you enable.

The following is a list of the available homepage cards:

- Search bar
- Quick access
- Headline
- Markdown
- Placeholder
- Catalog starred entities
- Featured docs

NOTE

Each card can have a **layouts** definition and **props** that depend on the component you use.

11.2. CUSTOMIZING THE HOME PAGE CARDS

As an administrator, you can customize the layout and content of the Home page to create a tailored user experience. This includes integrating various specialized cards into the primary view.

The Home page layout uses a 12-column grid system. You can precisely define the position (x), width (w), and height (h) for each card across multiple screen breakpoints:

- Extra-large (xl)
- Large (lg)
- Medium (md)
- Small (sm)
- Extra-small (xs)

- Extra-extra-small (xxs)

The default Home page is as shown in the following **app-config.yaml** file configuration:

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      dynamicRoutes:
        - path: /
          importName: DynamicHomePage
      mountPoints:
        - mountPoint: home.page/cards
          importName: SearchBar
          config:
            layouts:
              xl: { w: 10, h: 1, x: 1 }
              lg: { w: 10, h: 1, x: 1 }
              md: { w: 10, h: 1, x: 1 }
              sm: { w: 10, h: 1, x: 1 }
              xs: { w: 12, h: 1 }
              xxs: { w: 12, h: 1 }
        - mountPoint: home.page/cards
          importName: QuickAccessCard
          config:
            layouts:
              xl: { w: 7, h: 8 }
              lg: { w: 7, h: 8 }
              md: { w: 7, h: 8 }
              sm: { w: 12, h: 8 }
              xs: { w: 12, h: 8 }
              xxs: { w: 12, h: 8 }
        - mountPoint: home.page/cards
          importName: CatalogStarredEntitiesCard
          config:
            layouts:
              xl: { w: 5, h: 4, x: 7 }
              lg: { w: 5, h: 4, x: 7 }
              md: { w: 5, h: 4, x: 7 }
              sm: { w: 12, h: 4 }
              xs: { w: 12, h: 4 }
              xxs: { w: 12, h: 4 }
```

Prerequisites

- You have administrative access and can modify the **app-config.yaml** file for dynamic plugin configurations.

Procedure

- Configure different cards for your Home page in Red Hat Developer Hub as shown in the following code:

  Search

  You can use the **SearchBar** card to provide essential search functionality directly on the Home page.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: SearchBar
          config:
            layouts:
              xl: { w: 10, h: 1, x: 1 }
              lg: { w: 10, h: 1, x: 1 }
              md: { w: 10, h: 1, x: 1 }
              sm: { w: 10, h: 1, x: 1 }
              xs: { w: 12, h: 1 }
              xxs: { w: 12, h: 1 }
            props:
              path: /search
              queryParam: query
```

Table 11.1. Available props

Prop	Default	Description
path	**/search**	Override the linked search path if needed
queryParam	**query**	Override the search query parameter name if needed

Quick access

You can use the **QuickAccessCard** card to function as a customizable shortcut panel.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: QuickAccessCard
          config:
            layouts:
              xl: { h: 8 }
              lg: { h: 8 }
              md: { h: 8 }
              sm: { h: 8 }
              xs: { h: 8 }
              xxs: { h: 8 }
            props:
              title: Quick Access
              path: /quickaccess
```

Table 11.2. Available props

Prop	Default	Description
title	**Quick Access**	Override the linked search path if needed
path	none	Override the search query parameter name if needed

Headline

You can use the **Headline** card to display important information.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: Headline
          config:
            layouts:
              xl: { h: 1 }
              lg: { h: 1 }
              md: { h: 1 }
              sm: { h: 1 }
              xs: { h: 1 }
              xxs: { h: 1 }
            props:
              title: Important info
```

Table 11.3. Available props

Prop	Default	Description
title	none	Title

Markdown

You can use the **Markdown** card to display richly formatted content directly within the Home page layout. This card uses Markdown syntax to present structured information, such as lists and links (documentation and plugin repositories).

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: MarkdownCard
          config:
            layouts:
              xl: { w: 6, h: 4 }
              lg: { w: 6, h: 4 }
              md: { w: 6, h: 4 }
          sm: { w: 6, h: 4 }
          xs: { w: 6, h: 4 }
          xxs: { w: 6, h: 4 }
        props:
          title: Company links
          content: |
            ### RHDH
            * [Website](https://developers.redhat.com/rhdh/overview)
            * [Documentation]
(https://docs.redhat.com/en/documentation/red_hat_developer_hub/)
            * [Backstage Community Plugins](https://github.com/backstage/community-
plugins)
            * [RHDH Plugins](https://github.com/redhat-developer/rhdh-plugins)
            * [RHDH Hub](https://github.com/redhat-developer/rhdh)
    - mountPoint: home.page/cards
      importName: Markdown
      config:
        layouts:
          xl: { w: 6, h: 4, x: 6 }
          lg: { w: 6, h: 4, x: 6 }
          md: { w: 6, h: 4, x: 6 }
          sm: { w: 6, h: 4, x: 6 }
          xs: { w: 6, h: 4, x: 6 }
          xxs: { w: 6, h: 4, x: 6 }
        props:
          title: Important company links
          content: |
            ### RHDH
            * [Website](https://developers.redhat.com/rhdh/overview)
            * [Documentation]
(https://docs.redhat.com/en/documentation/red_hat_developer_hub/)
            * [Documentation]
(https://docs.redhat.com/en/documentation/red_hat_developer_hub/)
            * [Backstage Community Plugins](https://github.com/backstage/community-
plugins)
            * [RHDH Plugins](https://github.com/redhat-developer/rhdh-plugins)
            * [RHDH Hub](https://github.com/redhat-developer/rhdh)
```

Placeholder

You can use the **Placeholder** card as a utility element for reserving space or for layout testing on the Home page.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: Placeholder
          config:
            layouts:
              xl: { w: 1, h: 1 }
              lg: { w: 1, h: 1 }
              md: { w: 1, h: 1 }
              sm: { w: 1, h: 1 }
              xs: { w: 1, h: 1 }
            xxs: { w: 1, h: 1 }
          props:
            showBorder: true
            debugContent: '1'
```

Catalog starred entities

You can use the **CatalogStarredEntitiesCard** card to provide a dedicated space on the Home page for users to view catalog entities that they have marked as starred.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: CatalogStarredEntitiesCard
```

Featured docs

You can use the **FeaturedDocsCard** card as a way to highlight specific documentation within Red Hat Developer Hub, as it is available for deployment on the Home page.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: FeaturedDocsCard
```

EntitySection

You can use the **EntitySection** card to create a visually engaging section that highlights catalog entities of various kinds, such as **Component**, **API**, **Resource**, and **System**.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: EntitySection
          config:
            layouts:
              xl: { w: 12, h: 6 }
              lg: { w: 12, h: 6 }
              md: { w: 12, h: 6 }
              sm: { w: 12, h: 6 }
              xs: { w: 12, h: 6 }
              xxs: { w: 12, h: 14.5 }
```

OnboardingSection

You can use the **OnboardingSection** card to quickly discover learning resources within RHDH.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: OnboardingSection
          config:
            layouts:
              xl: { w: 12, h: 5 }
              lg: { w: 12, h: 5 }
              md: { w: 12, h: 5 }
              sm: { w: 12, h: 5 }
              xs: { w: 12, h: 7 }
              xxs: { w: 12, h: 12 }
```

TemplateSection

You can use the **TemplateSection** card to quickly explore and initiate software templates in RHDH.

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: TemplateSection
          config:
            layouts:
              xl: { w: 12, h: 5 }
              lg: { w: 12, h: 5 }
              md: { w: 12, h: 5 }
              sm: { w: 12, h: 5 }
              xs: { w: 12, h: 5 }
              xxs: { w: 12, h: 14 }
```

11.3. DEFINING THE LAYOUT OF THE RED HAT DEVELOPER HUB HOME PAGE

The Home page uses a 12-column grid to position your cards. You can use the optimal parameters to define the layout of your Developer Hub Home page.

Prerequisites

- Include the following optimal parameters in each of your breakpoints:
  - width (w)
  - height (h)
  - position (x and y)

Procedure

- Configure your Developer Hub **app-config.yaml** configuration file by choosing one of the following options:

  - Use the full space on smaller windows and half of the space on larger windows as follows:

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: Placeholder
          config:
            layouts:
              xl: { w: 6, h: 2 }
              lg: { w: 6, h: 2 }
              md: { w: 6, h: 2 }
              sm: { w: 12, h: 2 }
              xs: { w: 12, h: 2 }
              xxs: { w: 12, h: 2 }
            props:
              showBorder: true
              debugContent: a placeholder
```

- Show the cards side by side by defining the **x** parameter as shown in the following example:

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: Placeholder
          config:
            layouts:
              xl: { w: 6, h: 2 }
              lg: { w: 6, h: 2 }
              md: { w: 6, h: 2 }
              sm: { w: 12, h: 2 }
              xs: { w: 12, h: 2 }
              xxs: { w: 12, h: 2 }
            props:
              showBorder: true
              debugContent: left
        - mountPoint: home.page/cards
          importName: Placeholder
          config:
            layouts:
              xl: { w: 6, h: 2, x: 6 }
              lg: { w: 6, h: 2, x: 6 }
              md: { w: 6, h: 2, x: 6 }
              sm: { w: 12, h: 2, x: 0 }
              xs: { w: 12, h: 2, x: 0 }
              xxs: { w: 12, h: 2, x: 0 }
            props:
              showBorder: true
              debugContent: right
```

However, you can see a second card below this card by default.

- Show the cards in three columns by defining the **x** parameter as shown in the following example:

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      mountPoints:
        - mountPoint: home.page/cards
          importName: Placeholder
          config:
            layouts:
              xl: { w: 4, h: 2 }
              lg: { w: 4, h: 2 }
              md: { w: 4, h: 2 }
              sm: { w: 6, h: 2 }
              xs: { w: 12, h: 2 }
              xxs: { w: 12, h: 2 }
            props:
              showBorder: true
              debugContent: left
        - mountPoint: home.page/cards
          importName: Placeholder
          config:
            layouts:
              xl: { w: 4, h: 2, x: 4 }
              lg: { w: 4, h: 2, x: 4 }
              md: { w: 4, h: 2, x: 4 }
              sm: { w: 6, h: 2, x: 6 }
              xs: { w: 12, h: 2 }
              xxs: { w: 12, h: 2 }
            props:
              showBorder: true
              debugContent: center
        - mountPoint: home.page/cards
          importName: Placeholder
          config:
            layouts:
              xl: { w: 4, h: 2, x: 8 }
              lg: { w: 4, h: 2, x: 8 }
              md: { w: 4, h: 2, x: 8 }
              sm: { w: 6, h: 2 }
              xs: { w: 12, h: 2 }
              xxs: { w: 12, h: 2 }
            props:
              showBorder: true
              debugContent: right
```

11.4. CUSTOMIZING YOUR DYNAMIC HOMEPAGE TO OPTIMIZE YOUR WORKFLOW

You can customize your homepage to suit your preferences using the drag-and-drop, resizing, and widget management functionality.

You can do the following actions with the customizable homepage:

- **Drag and drop**: Move cards around the layout

- **Resize**: Adjust card dimensions
- **Add widget**: Select from available cards to add to the homepage
- **Remove cards**: Delete cards from the homepage
- **Restore defaults**: Reset to the original card configuration
- **User persistence**: Settings are saved depending on how you use Backstage Storage API

Additional cards automatically appear based on the installed and enabled plugins. The plugins provide the following two main components:

- **DynamicHomePage**: The read-only homepage that displays configured cards without your customization.
- **DynamicCustomizableHomePage**: The interactive homepage that allows users to move, resize, and manage cards.

The default homepage displays the **OnboardingSection**, the **EntitySection**, and the **TemplateSection** cards by default. These cards define the default width (w) and height (h) for the cards at various responsiveness levels.

The homepage automatically loads the following configuration:

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      dynamicRoutes:
        - path: /
          importName: DynamicHomePage
      mountPoints:
        - mountPoint: home.page/cards
          importName: OnboardingSection
          config:
            layouts:
              xl: { w: 12, h: 6 }
              lg: { w: 12, h: 6 }
              md: { w: 12, h: 7 }
              sm: { w: 12, h: 8 }
              xs: { w: 12, h: 9 }
              xxs: { w: 12, h: 14 }
        - mountPoint: home.page/cards
          importName: EntitySection
          config:
            layouts:
              xl: { w: 12, h: 7 }
              lg: { w: 12, h: 7 }
              md: { w: 12, h: 8 }
              sm: { w: 12, h: 9 }
              xs: { w: 12, h: 11 }
              xxs: { w: 12, h: 15 }
        - mountPoint: home.page/cards
          importName: TemplateSection
          config:
            layouts:
```

```
            xl: { w: 12, h: 5 }
            lg: { w: 12, h: 5 }
            md: { w: 12, h: 5 }
            sm: { w: 12, h: 5 }
            xs: { w: 12, h: 7 }
            xxs: { w: 12, h: 13 }
            xs: { w: 12, h: 7.5 }
            xxs: { w: 12, h: 13.5 }
```

Procedure

- You can arrange the cards and adjust their dimensions using the drag-and-drop and resize functionality. The following is an example of an interactive homepage where you can add, remove, move, and resize cards:

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      dynamicRoutes:
        - path: /
          importName: DynamicCustomizableHomePage
      mountPoints:
         - mountPoint: home.page/cards
           importName: OnboardingSection
           config:
            layouts:
              xl: { w: 12, h: 6 }
              lg: { w: 12, h: 6 }
              md: { w: 12, h: 7 }
              sm: { w: 12, h: 8 }
              xs: { w: 12, h: 9 }
              xxs: { w: 12, h: 14 }
        - mountPoint: home.page/cards
          importName: EntitySection
          config:
            layouts:
              xl: { w: 12, h: 7 }
              lg: { w: 12, h: 7 }
              md: { w: 12, h: 8 }
              sm: { w: 12, h: 9 }
              xs: { w: 12, h: 11 }
              xxs: { w: 12, h: 15 }
        - mountPoint: home.page/cards
          importName: TemplateSection
          config:
            layouts:
              xl: { w: 12, h: 5 }
              lg: { w: 12, h: 5 }
              md: { w: 12, h: 5 }
              sm: { w: 12, h: 5 }
              xs: { w: 12, h: 7.5 }
              xxs: { w: 12, h: 13.5 }
        # Additional cards available in "Add widget" dialog
        - mountPoint: home.page/cards
```

```
          importName: RecentlyVisitedCard
        - mountPoint: home.page/cards
          importName: TopVisitedCard
```

- You can change the title by overriding the **title** property of the dynamic homepage plugin as shown in the following example:

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      dynamicRoutes:
        - path: /
          importName: DynamicHomePage # or DynamicCustomizableHomePage for
customizable homepage
          config:
            props:
              title: 'Howdy {{firstName}} or {{displayName}}'
```

The **title** property supports two variables:

- **{{displayName}}**: This contains the full **displayName** of the catalog entity.
- **{{firstName}}**: This contains the first part (separated by a space) of the **displayName**.
- You can use a **subtitle** property which is not used by default as shown in the following example:

```
dynamicPlugins:
  frontend:
    red-hat-developer-hub.backstage-plugin-dynamic-home-page:
      dynamicRoutes:
        - path: /
          importName: DynamicHomePage # or DynamicCustomizableHomePage
          config:
            props:
              title: Our custom RHDH instance
               subtitle: 'Hello {{displayName}}'
```

11.5. CUSTOMIZING QUICKACCESSCARD CARD ICONS ON THE RED HAT DEVELOPER HUB HOMEPAGE

As an administrator, you can customize the **QuickAccessCard** card icons on the Red Hat Developer Hub homepage to enhance its visual appeal and user experience. You can integrate custom branding or standard icons by leveraging a remote JSON configuration file.

Procedure

1. Add the JSON Data source. The **QuickAccessCard** card on the homepage supports loading data from a JSON file. This JSON file can be hosted in your GitHub repository or any accessible endpoint.
2. Configure the Proxy in your RHDH **app-config.yaml** file.
   To allow the homepage to fetch data from the hosted JSON file, add the following proxy configuration to your RHDH **app-config.yaml** file:

```
proxy:
  endpoints:
  # customize your backstage instance
  '/developer-hub':
    target: https://raw.githubusercontent.com/ # For example,
https://raw.githubusercontent.com/
    pathRewrite:
      '^/api/proxy/developer-hub$': <path-to-your>.json # For example, /redhat-
developer/rhdh/main/packages/app/public/homepage/data.json
    changeOrigin: true
    secure: true
```

The following table lists the supported icon types:

Icon type	Example	Rendered as
Backstage system icon	**"catalog"**	Uses Backstage system [icons] (https://github.com/backstage/backstage/blob/master/packages/app-defaults/src/defaults/icons.tsx)
SVG String	**"<svg>…</svg>"**	Renders inline SVG
Image URL	**"https://example.com/icon.png"**	Renders external image. External images might be restricted to Content Security Policy (CSP) which can be configured in your RHDH **app-config.yaml** file.
Relative Path	**"/homepage/icons/icon.png"**	Loads the icon from the app public folder (if present)

NOTE

SVGs must be valid strings when stored inside JSON (use single quotes inside **<svg>**).

The following is an example of a JSON file:

```
[
 {
 "title": "Community",
 "isExpanded": true,
 "links": [
 {
 "iconUrl": "https://img.icons8.com/ios/50/globe--v1.png",
 "label": "Website",
 "url": "https://developers.redhat.com/"
 },
 {
 "iconUrl": "https://img.icons8.com/ios/50/link--v1.png",
 "label": "Blog",
 "url": "https://developers.redhat.com/blog"
 },
 {
```

```
 "iconUrl": "github",
 "label": "GitHub",
 "url": "https://github.com/redhat-developer"
 },
 {
 "iconUrl": "https://img.icons8.com/color/48/slack.png",
 "label": "Slack",
 "url": "https://join.slack.com/xyz"
 },
 {
 "iconUrl": "https://img.icons8.com/color/48/youtube-squared.png",
 "label": "Videos for developers",
 "url": "https://developers.redhat.com/videos"
 },
 {
 "iconUrl": "<svg xmlns='http://www.w3.org/2000/svg' xml:space='preserve' width='2048'
height='2048' style='shape-rendering:geometricPrecision;text-rendering:geometricPrecision;image-
rendering:optimizeQuality;fill-rule:evenodd;clip-rule:evenodd'><defs>
<style>.fil0{fill:none}.fil4{fill:#bdbdbd;fill-rule:nonzero}</style></defs><g id='Layer_x0020_1'><path
class='fil0' d='M0 0h2048v2048H0z'/><path class='fil0' d='M255.999 255.999h1536v1536h-1536z'/>
<path class='fil0' d='M256 256h1536v1536H256z'/><g id='_342647616'><path id='_342648000'
style='fill:#e53935;fill-rule:nonzero' d='m273.04 666.226 737.28-367.843 13.68-6.824 13.68 6.824
737.28 367.843 17.04 8.503v234.834L993.281 1418.52 255.999 909.563V674.729z'/><path
id='_342647880' style='fill:#fff' d='M609.28 711.961h829.439V1541.4H609.28z'/><path
id='_342647808' style='fill:#c62828;fill-rule:nonzero' d='m1024 1279.73 723.6-361.079 44.4-
22.156v859.945H255.999V896.495l44.402 22.156z'/><path id='_342647736' class='fil4' d='M1331.2
896.285H716.716v-61.442H1331.2z'/><path id='_342647688' class='fil4' d='M1203.22
1049.88H844.698v-61.439h358.522z'/></g></g></svg>",
 "label": "Mailing List",
 "url": "https://groups.google.com/g/xyz"
 },
 ]
}
]
```

CHAPTER 12. CUSTOMIZING THE QUICK ACCESS CARD

To access the Home page in Red Hat Developer Hub, the base URL must include the **/developer-hub** proxy. You can configure the Home page by passing the data into the **app-config.yaml** file as a proxy. You can provide data to the Home page from the following sources:

- JSON files hosted on GitHub or GitLab.
- A dedicated service that provides the Home page data in JSON format using an API.

12.1. USING HOSTED JSON FILES TO PROVIDE DATA TO THE QUICK ACCESS CARD

Prerequisites

- You have installed Red Hat Developer Hub by using either the Operator or Helm chart. See Installing Red Hat Developer Hub on OpenShift Container Platform .

Procedure

- To access the data from the JSON files, add the following code to the **app-config.yaml** Developer Hub configuration file:
- Add the following code to the **app-config.yaml** file:

```
proxy:
  endpoints:
    # Other Proxies
    # customize developer hub instance
    '/developer-hub':
      target: <DOMAIN_URL> # i.e https://raw.githubusercontent.com/
      pathRewrite:
        '^/api/proxy/developer-hub': <path to json file> # i.e /redhat-
developer/rhdh/main/packages/app/public/homepage/data.json
      changeOrigin: true
      secure: true
      # Change to "false" in case of using self hosted cluster with a self-signed certificate
      headers:
 <HEADER_KEY>: <HEADER_VALUE> # optional and can be passed as needed i.e
Authorization can be passed for private GitHub repo and PRIVATE-TOKEN can be passed
for private GitLab repo
```

12.2. USING A DEDICATED SERVICE TO PROVIDE DATA TO THE QUICK ACCESS CARD

When using a dedicated service, you can do the following tasks:

- Use the same service to provide the data to all configurable Developer Hub pages or use a different service for each page.
- Use the **red-hat-developer-hub-customization-provider** as an example service, which provides data for both the Home and Tech Radar pages. The **red-hat-developer-hub-customization-provider** service provides the same data as default Developer Hub data. You

can fork the **red-hat-developer-hub-customization-provider** service repository from GitHub and modify it with your own data, if required.

- Deploy the **red-hat-developer-hub-customization-provider** service and the Developer Hub Helm chart on the same cluster.

Prerequisites

- You have installed the Red Hat Developer Hub using Helm chart. For more information, see Installing Red Hat Developer Hub on OpenShift Container Platform with the Helm chart .

Procedure

To use a separate service to provide the Home page data, complete the following steps:

1. In the Red Hat OpenShift Container Platform web console, click **+Add** > **Import from Git**.
2. Enter the URL of your Git repository into the **Git Repo URL** field.
   To use the **red-hat-developer-hub-customization-provider** service, add the URL for the red-hat-developer-hub-customization-provider repository or your fork of the repository containing your customizations.
3. On the **General** tab, enter **red-hat-developer-hub-customization-provider** in the **Name** field and click **Create**.
4. On the **Advanced Options** tab, copy the value from **Target Port**.

   NOTE

   Target Port automatically generates a Kubernetes or OpenShift Container Platform service to communicate with.

5. Add the following code to the **app-config.yaml** file:

```
proxy:
  endpoints:
    # Other Proxies
    # customize developer hub instance
    '/developer-hub':
      target: ${HOMEPAGE_DATA_URL} 1
      changeOrigin: true
      # Change to "false" in case of using self-hosted cluster with a self-signed certificate
      secure: true
```

1 1 1 1 **http://<SERVICE_NAME>:8080**, for example, **http://rhdh-customization-provider:8080**.

NOTE

The **red-hat-developer-hub-customization-provider** service contains the 8080 port by default. If you are using a custom port, you can specify it with the 'PORT' environmental variable in the **app-config.yaml** file.

6. Replace the **HOMEPAGE_DATA_URL** by adding the URL to **rhdh-secrets** or by directly replacing it in your custom ConfigMap.

7. Delete the Developer Hub pod to ensure that the new configurations are loaded correctly.

Verification

- To view the service, go to the OpenShift Container Platform web console and click **Networking** > **Service**.

  NOTE

  You can also view **Service Resources** in the Topology view.

- Ensure that the provided API URL for the Home page returns the data in JSON format as shown in the following example:

```
[
  {
    "title": "Dropdown 1",
    "isExpanded": false,
    "links": [
      {
        "iconUrl": "https://imagehost.com/image.png",
        "label": "Dropdown 1 Item 1",
        "url": "https://example.com/"
      },
      {
        "iconUrl": "https://imagehost2.org/icon.png",
        "label": "Dropdown 1 Item 2",
        "url": ""
      }
    ]
  },
  {
    "title": "Dropdown 2",
    "isExpanded": true,
    "links": [
      {
        "iconUrl": "http://imagehost3.edu/img.jpg",
        "label": "Dropdown 2 Item 1",
        "url": "http://example.com"
      }
    ]
  }
]
```

  NOTE

  If the request call fails or is not configured, the Developer Hub instance falls back to the default local data.

- If the images or icons do not load, then allowlist them by adding your image or icon host URLs to the content security policy (csp) **img-src** in your custom ConfigMap as shown in the following example:

```
kind: ConfigMap
apiVersion: v1
metadata:
  name: app-config.yaml
data:
  app-config.yaml: |
    app:
      title: Red Hat Developer Hub
    backend:
      csp:
        connect-src:
          - "'self'"
          - 'http:'
          - 'https:'
        img-src:
          - "'self'"
          - 'data:'
          - <image host url 1>
          - <image host url 2>
          - <image host url 3>
    # Other Configurations
```

CHAPTER 13. CUSTOMIZING THE RHDH METADATA CARD ON THE SETTINGS PAGE

The **Settings** page in Red Hat Developer Hub contains a **RHDH Metadata** card. By default, the **RHDH Metadata** card shows the **RHDH Version** and **Backstage Version** of your Red Hat Developer Hub instance. When you click the **Show more** icon, the card expands to also show **Upstream**, **Midstream**, and **Build Time** information.

You can override the default to show custom build information about your Red Hat Developer Hub instance in the card. You can customize the card title as well as the card contents.

Procedure

To customize the **RHDH Metadata** card, complete the following step:

- In your app-config.yaml file, configure the **buildinfo** field. For example:

```
buildInfo:
  title: _<metadata_card_title>_
  card:
    TechDocs builder: '_<techdocs_builder>_'
    Authentication provider: '_<authentication_provider>_'
    RBAC: disabled
  full: true
```

where

<metadata_card_title>

Specifies the title that you want to display on the customized card.

<techdocs_builder>

Specifies whether to generate and publish the docs or to only fetch the docs when using the default build strategy. Possible values are **local** or **external**. If you want to generate and publish the docs, set the **techdocs.builder** field to **local** in your app-config.yaml file. If you only want to fetch the docs without generating and publishing them, set the **techdocs.builder** field to **external**.

<authentication_provider>

Specifies the authentication provider that you want to use. Example values are **GitHub** or **GitLab**.

full

Specifies what information is shown on the customized card. Possible values are **true** or **false**. If set to **true**, only the information specified in this configuration is shown on the card. If set to **false**, the specified information is shown on the card along with the build versions. The default value is **true**.

Result

The **Settings** page displays a card with a custom title and custom build information about your Red Hat Developer Hub instance.

CHAPTER 14. LOCALIZATION IN RED HAT DEVELOPER HUB

14.1. ENABLING THE LOCALIZATION FRAMEWORK IN DEVELOPER HUB

Enabling localization enhances accessibility, improves the user experience for a global audience, and assists organizations in meeting language requirements in specific regions.

The language settings of Red Hat Developer Hub (RHDH) use English by default. In RHDH 1.8, you can choose to use one of the following supported languages:

- English (en)
- French (fr)

Procedure

1. To enable the localization framework in your RHDH application, add the **i18n** section to your custom Developer Hub **app-config.yaml** configuration file:

   app-config.yaml fragment with localization i18n fields

```
...
i18n:
  locales: # List of supported locales. Must include en, otherwise the translation framework will fail to load.
    - en
    - fr
  defaultLocale: en # Optional. Defaults to en if not specified.
...
```

14.2. SELECTING THE LANGUAGE FOR YOUR DEVELOPER HUB INSTANCE

You can choose to use one of the following supported languages:

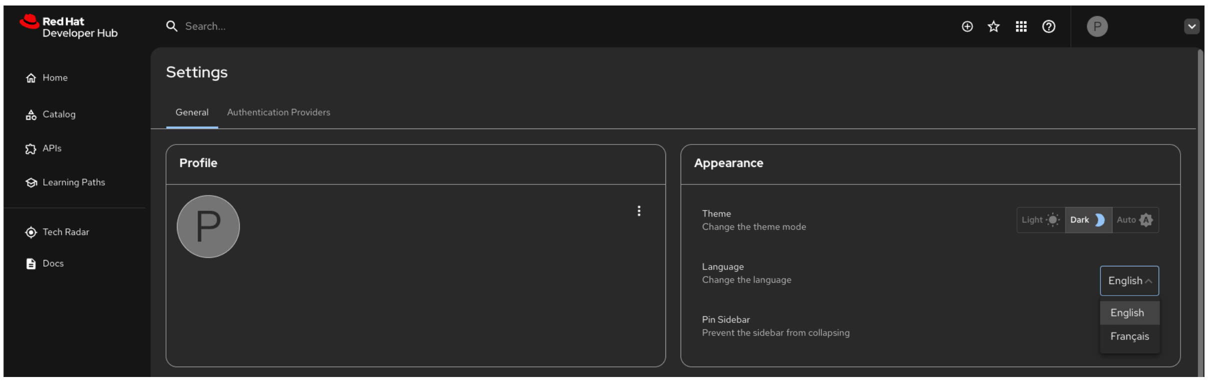
- English (default)
- French

Prerequisites

- You are logged in to the Developer Hub web console.
- You have enabled the localization framework in your RHDH instance.

Procedure

1. From the Developer Hub web console, click the down arrow next to your profile name, then click **Settings**.
2. From the **Appearance** panel, click the language dropdown to select your language of choice.



14.2.1. Language persistence

When you change the language in the UI, your preference is saved to storage. On next login or refresh, your chosen language setting is restored. Guest users cannot persist language preferences.

Default language selection uses the following priority order:

1. **Browser language priority**: The system first checks the user's browser language preferences to provide a personalized experience.

2. **Configuration priority**: If no browser language matches the supported locales, the **defaultLocale** from the **i18n** configuration is used as a fallback.

3. **Fallback priority**: If neither browser preferences nor configuration provide a match, defaults to **en**.

Red Hat Developer Hub automatically saves and restores user language settings across browser sessions. This feature is enabled by default and uses database storage. To opt-out and use browser storage instead, add the following to your **app-config.yaml** configuration file:

```
userSettings:
  persistence: browser
```

where:

userSettings:persistence

Enter **browser** to opt-out and use browser local storage. Optionally, set this value to **database** to persist across browsers and devices. This is the default setting and does not require this configuration to be set.

14.3. LOCALIZATION SUPPORT FOR PLUGINS

14.3.1. Overriding translations

In RHDH 1.8, you can override plugin translation strings without modifying the plugin source code.

Prerequisites

- You have enabled localization in your RHDH application.

- For an Operator-installed RHDH instance, you have installed the OpenShift CLI (**oc**). For more information about installing **oc**, see Installing the OpenShift CLI.

Procedure

1. Create a JSON file containing the translation strings that you want to override, as shown in the following example:

   allTranslations.json fragment with translation string overrides

   ```
   {
     "plugin.global-floating-action-button": {
       "en": {
         "fab.quay.label": "QUAY EN JSON",
         "fab.rbac.label": "RBAC EN JSON",
         "fab.rbac.tooltip": "RBAC EN tooltip JSON"
       },
       "fr": {
         "fab.quay.label": "QUAY French JSON",
         "fab.quay.tooltip": "QUAY french tooltip JSON",
         "fab.rbac.label": "RBAC French JSON",
         "fab.rbac.tooltip": "RBAC french tooltip JSON"
       }
     },
     "plugin.global-header": {
       "en": {
         "applicationLauncher.developerHub": "Developer Hub EN JSON"
       },
       "fr": {
         "applicationLauncher.developerHub": "Developer Hub French JSON"
       }
     }
   }
   ```

2. Log in to your cluster and create a config map for your translations override strings:

   ```
   $ oc create configmap all-translations \
       --from-file=/<path-to>/allTranslations.json
   ```

3. Update your deployment configuration based on your installation method:

   NOTE

   As shown in the following examples, we recommend that you use the same mount path for your **allTranslations.json** file and any other override files that you create, for example **/opt/app-root/src/translations**.

   a. For an Operator-installed RHDH instance, update your **Backstage** custom resource (CR). For more information about configuring a CR, see Using the Red Hat Developer Hub Operator to run Developer Hub with your custom configuration.

      i. In the **spec.application.extraFiles** section, add the translations custom app configuration as shown in the following example:

         Backstage custom resource fragment

         ```
         apiVersion: rhdh.redhat.com/v1alpha3
         ```

```
kind: Backstage
spec:
  application:
    extraFiles:
      mountPath: /opt/app-root/src/translations
      configMaps:
        - name: all-translations
```

b. For a Helm-installed RHDH instance, update your Developer Hub **Backstage** Helm chart to mount in the Developer Hub filesystem your files from the **all-translations** config map:

   i. In the Developer Hub Helm chart, go to **Root Schema → Backstage chart schema → Backstage parameters → Backstage container additional volume mounts**.

   ii. Select **Add Backstage container additional volume mounts** and add the following values:

   mountPath

      /opt/app-root/src/translations

   name

      all-translations

   iii. Add the translations to the **Backstage container additional volumes** in the Developer Hub Helm chart:

   name

      all-translations

   configMap

      defaultMode

         420

      name

         all-translations

4. Update the **i18n** section to your custom Developer Hub **app-config.yaml** configuration file to include the following translation override file:

app-config.yaml fragment with localization i18n fields

```
i18n:
  locales: # List of supported locales. Must include en, otherwise the translation framework will fail to load.
    - en
    - fr
  defaultLocale: en # Optional. Defaults to en if not specified.
  overrides: # List of JSON translation files applied in order (last file wins).  Each file may override/add translations for one or more plugins/locales
    - /opt/app-root/src/translations/all-translations.json
```

Additional resources

assembly-localization-in-rhdh

- Enabling floating button localization in Developer Hub
- Enabling Quickstart localization in Developer Hub
- Enabling sidebar menu items localization in Developer Hub

14.3.2. Best practices for implementing localization support for custom plugins in RHDH

When you add localization support to your RHDH plugins, the following best practices help ensure that you establish a robust, type-safe, and future-proof localization workflow, separating the immutable source text from the organized key structure, and ensuring reliable deployment across all targeted languages:

Do not modify original English strings

This preserves the source of truth for all translators, preventing unexpected changes that would invalidate existing translations and ensuring consistency across all versions.

Use flat dot notation in translation files

Flat dot notation, for example **page.title**, follows the standard **i18next** library convention, which optimizes runtime lookups and keeps the actual translation values concise and easy to manage for translation services.

Use nested objects in the reference file for TypeScript support

This allows the TypeScript compiler to enforce structural type checking on your translation keys, catching errors during development rather than at runtime.

Test with mocks to ensure translations work correctly

This isolates the translation logic, guaranteeing the correct keys are passed and rendered without relying on a full environment setup or external translation files during unit testing.

Add all languages to your application configuration

This ensures that the RHDH application initializes and loads all necessary language resources at startup, making the locales immediately available for users to select in the UI.

Table 14.1. Common patterns

Use case	Pattern	Example
Simple text	`t('key')`	`t('page.title')`
With variables	`t('key', {param})`	`t('table.topN', {count: '5'})`
Dynamic keys	`t(config.titleKey as any)`	`t('cards.overview.title' as any)`

14.3.3. Implementing localization support for your custom plugins

You can implement localization support in your custom RHDH plugins so that your plugins are accessible to a diverse, international user base and follow recommended best practices.

Procedure

1. Create the following translation files in your plugin's **src/translations/** directory:

src/translations/ref.ts English reference

```
import { createTranslationRef } from "@backstage/core-plugin-api/alpha";

export const myPluginMessages = {
 page: {
   title: "My Plugin",
   subtitle: "Plugin description",
 },
 common: {
   exportCSV: "Export CSV",
   noResults: "No results found",
 },
 table: {
   headers: {
     name: "Name",
     count: "Count",
   },
 },
};

export const myPluginTranslationRef = createTranslationRef({
 id: "plugin.my-plugin",
 messages: myPluginMessages,
});
```

src/translations/de.ts German translation

```
import { createTranslationMessages } from "@backstage/core-plugin-api/alpha";
import { myPluginTranslationRef } from "./ref";

const myPluginTranslationDe = createTranslationMessages({
 ref: myPluginTranslationRef,
 messages: {
   "page.title": "Mein Plugin",
   "page.subtitle": "Plugin-Beschreibung",
   "common.exportCSV": "CSV exportieren",
   "common.noResults": "Keine Ergebnisse gefunden",
   "table.headers.name": "Name",
   "table.headers.count": "Anzahl",
 },
});

export default myPluginTranslationDe;
```

src/translations/fr.ts French translation

```
import { createTranslationMessages } from "@backstage/core-plugin-api/alpha";
import { myPluginTranslationRef } from "./ref";

const myPluginTranslationFr = createTranslationMessages({
 ref: myPluginTranslationRef,
 messages: {
   "page.title": "Mon Plugin",
   "page.subtitle": "Description du plugin",
    "common.exportCSV": "Exporter CSV",
    "common.noResults": "Aucun résultat trouvé",
    "table.headers.name": "Nom",
    "table.headers.count": "Nombre",
  },
});

export default myPluginTranslationFr;
```

src/translations/index.ts Translation resource

```
import { createTranslationResource } from "@backstage/core-plugin-api/alpha";
import { myPluginTranslationRef } from "./ref";

export const myPluginTranslations = createTranslationResource({
  ref: myPluginTranslationRef,
  translations: {
    de: () => import("./de"),
    fr: () => import("./fr"),
  },
});

export { myPluginTranslationRef };
```

2. Create translation hooks file, as follows:

src/hooks/useTranslation.ts Translation hooks

```
import { useTranslationRef } from "@backstage/core-plugin-api/alpha";
import { myPluginTranslationRef } from "../translations";

export const useTranslation = () => useTranslationRef(myPluginTranslationRef);
```

3. Update your plugin components to replace hard-coded strings with translation calls as shown in the following example:

Before (hardcoded):

```
const MyComponent = () => {
  return (
    <div>
      <h1>My Plugin</h1>
      <button>Export CSV</button>
    </div>
  );
};
```

After (translated):

```
import { useTranslation } from '../hooks/useTranslation';

const MyComponent = () => {
  const { t } = useTranslation();
```

```
 return (
   <div>
     <h1>{t('page.title')}</h1>
     <button>{t('common.exportCSV')}</button>
   </div>
 );
};
```

4. (Optional) If your content contains variables, use interpolation:

```
// In your translation files
'table.pagination.topN': 'Top {{count}} items'

// In your component
const { t } = useTranslation();
const message = t('table.pagination.topN', { count: '10' });
```

5. (Optional) If your content contains dynamic translation keys (for example, from your plugin configuration):

```
// Configuration object with translation keys
const CARD_CONFIGS = [
 { id: 'overview', titleKey: 'cards.overview.title' },
 { id: 'details', titleKey: 'cards.details.title' },
 { id: 'settings', titleKey: 'cards.settings.title' },
];

// In your component
const { t } = useTranslation();

const CardComponent = ({ config }) => {
 return (
   <div>
     <h2>{t(config.titleKey as any)}</h2>
     {/* Use 'as any' for dynamic keys */}
   </div>
 );
};
```

6. Export the translation resources

src/alpha.ts file fragment

```
// Export your plugin
export { myPlugin } from "./plugin";

// Export translation resources for RHDH
export { myPluginTranslations, myPluginTranslationRef } from "./translations";
```

7. Update your **dynamic-plugins.default.yaml** file, as follows:

dynamic-plugins.default.yaml file fragment

```
backstage-community.plugin-my-plugin:
```

```
translationResources:
  - importName: myPluginTranslations
    ref: myPluginTranslationRef
    module: Alpha
```

8. Update your **package.json** file as follows:

package.json file fragment

```
"exports": {
    ".": "./src/index.ts",
    "./alpha": "./src/alpha.ts",
    "./package.json": "./package.json"
  },
  "main": "src/index.ts",
  "types": "src/index.ts",
  "typesVersions": {
    "*": {
      "alpha": [
        "src/alpha.ts"
      ],
      "package.json": [
        "package.json"
      ]
    }
  }
```

Verification

To verify your translations, create a test mock file. For example:

src/test-utils/mockTranslations.ts Test mock file

```
import { myPluginMessages } from "../translations/ref";

function flattenMessages(obj: any, prefix = ""): Record<string, string> {
 const flattened: Record<string, string> = {};
 for (const key in obj) {
   if (obj.hasOwnProperty(key)) {
     const value = obj[key];
     const newKey = prefix ? `${prefix}.${key}` : key;
     if (typeof value === "object" && value !== null) {
       Object.assign(flattened, flattenMessages(value, newKey));
     } else {
       flattened[newKey] = value;
     }
   }
 }
 return flattened;
}

const flattenedMessages = flattenMessages(myPluginMessages);

export const mockT = (key: string, params?: any) => {
 let message = flattenedMessages[key] || key;
 if (params) {
   for (const [paramKey, paramValue] of Object.entries(params)) {
     message = message.replace(
       new RegExp(`{{${paramKey}}}`, "g"),
       String(paramValue),
     );
   }
 }
 return message;
};

export const mockUseTranslation = () => ({ t: mockT });
```

Update your tests

```
import { mockUseTranslation } from "../test-utils/mockTranslations";

jest.mock("../hooks/useTranslation", () => ({
 useTranslation: mockUseTranslation,
}));

// Your test code...
```