GETTING STARTED WITH ENTANDO APP BUILDER

SAMPLE MORTGAGE APPLICATION PROJECT

PREFACE

The Entando App Builder helps you create a variety of applications and integrate them with Red Hat BPM. It uses an intuitive UI, reusable templates, and drag-and-drop functionality that allows you to participate in every stage of the application design process regardless of your level of coding knowledge.

This demonstration walks through creating two applications in a mortgage lending process: an applicant page and an lender page. Both pages will integrate with Red Hat BPM.

Prerequisites:

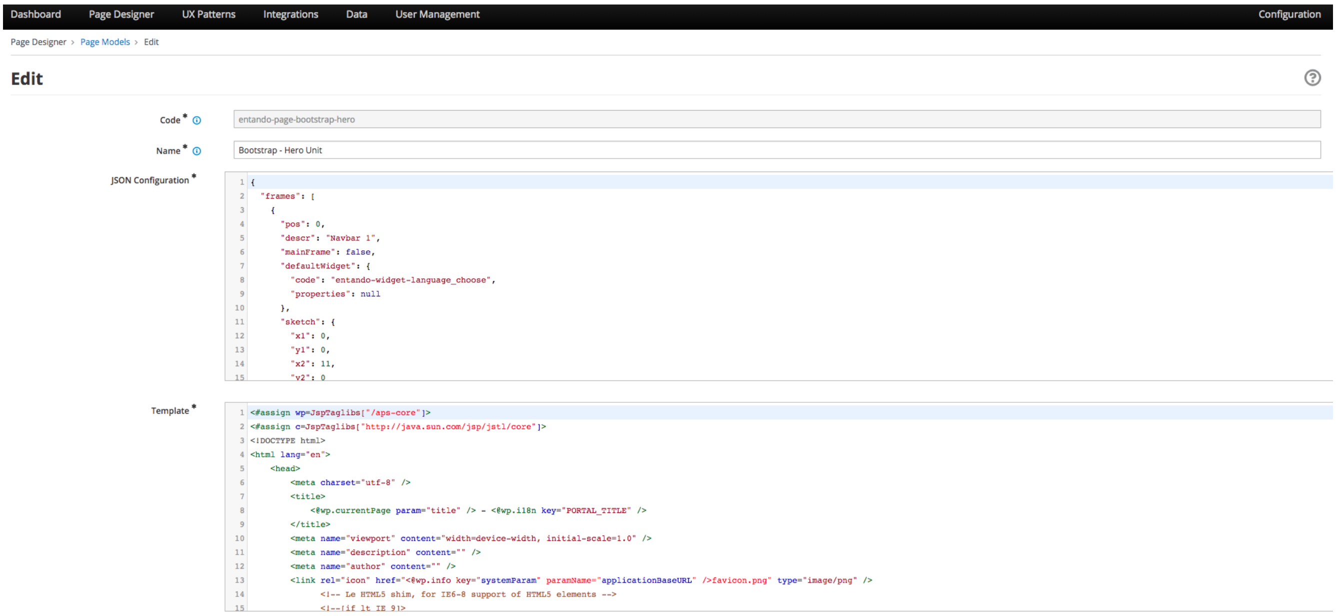
- Entando App Builder and Core installed

CONFIGURING THE APPLICANT PAGE

The Applicant page is a public-facing webpage.

CREATING A NEW PAGE MODEL

Page models are reusable templates. They determine the page layout via frames into which you can then drag and drop content and widgets.



To create a new page model:

1. Open the Entando App Builder.
2. From the tabs along the top, select UX Patterns > Page Models > **Add**.
3. Assign the page model a code and a name. Codes represent the page model's unique identifier. The name can be more human readable. For example:
   Code: *entando-page-purple*

Name: *Purple - BPM*

4. In the JSON Configuration field, enter JSON content to structure the page. See the following text for an example.

```
{
  "frames": [
    {
      "pos": 0,
      "descr": "Top bar 1",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 0,
        "y1": 0,
        "x2": 2,
        "y2": 0
      }
    },
    {
      "pos": 1,
      "descr": "Top Bar 2",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 3,
        "y1": 0,
        "x2": 5,
        "y2": 0
      }
    },
    {
      "pos": 2,
      "descr": "Top Bar 3",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 6,
        "y1": 0,
        "x2": 8,
        "y2": 0
      }
    },
    {
      "pos": 3,
      "descr": "Top Bar 4",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 9,
        "y1": 0,
```

```
      "x2": 11,
      "y2": 0
    }
  },
  {
    "pos": 4,
    "descr": "Central Bar 1",
    "mainFrame": false,
    "defaultWidget": null,
    "sketch": {
      "x1": 0,
      "y1": 1,
      "x2": 11,
      "y2": 1
    }
  },
  {
    "pos": 5,
    "descr": "Central Bar mortgage 2",
    "mainFrame": false,
    "defaultWidget": null,
    "sketch": {
      "x1": 2,
      "y1": 2,
      "x2": 9,
      "y2": 2
    }
  },
  {
    "pos": 6,
    "descr": "Central Bar left",
    "mainFrame": false,
    "defaultWidget": null,
    "sketch": {
      "x1": 2,
      "y1": 3,
      "x2": 4,
      "y2": 3
    }
  },
  {
    "pos": 7,
    "descr": "Central Bar Center",
    "mainFrame": false,
    "defaultWidget": null,
    "sketch": {
      "x1": 5,
      "y1": 3,
      "x2": 7,
      "y2": 3
    }
```

```
    },
    {
      "pos": 8,
      "descr": "Central Bar right",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 8,
        "y1": 3,
        "x2": 9,
        "y2": 3
      }
    },
    {
      "pos": 9,
      "descr": "Banner Advisor",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 0,
        "y1": 4,
        "x2": 11,
        "y2": 4
      }
    },
    {
      "pos": 10,
      "descr": "Full",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 0,
        "y1": 5,
        "x2": 11,
        "y2": 5
      }
    },
    {
      "pos": 11,
      "descr": "Footer Left",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 0,
        "y1": 6,
        "x2": 5,
        "y2": 6
      }
    },
    {
      "pos": 12,
```

```
      "descr": "Footer right",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 6,
        "y1": 6,
        "x2": 11,
        "y2": 6
      }
    },
    {
      "pos": 13,
      "descr": "Footer 2 Left",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 0,
        "y1": 7,
        "x2": 5,
        "y2": 7
      }
    },
    {
      "pos": 14,
      "descr": "Footer 2 right",
      "mainFrame": false,
      "defaultWidget": null,
      "sketch": {
        "x1": 6,
        "y1": 7,
        "x2": 11,
        "y2": 7
      }
    }
  ]
}
```

5. In the Template field, enter XML formatting to determine where each defined frame belongs and how to render it. See the example content below:

```
<#assign wp=JspTaglibs["/aps-core"]>
<#assign c=JspTaglibs["http://java.sun.com/jsp/jstl/core"]>
<!DOCTYPE html>
<html lang="en">
    <head>
        <meta charset="utf-8" />
        <title>
            <@wp.currentPage param="title" /> - <@wp.i18n key="PORTAL_TITLE" />
        </title>
        <meta name="viewport" content="width=device-width, initial-scale=1.0" />
```

```
        <meta name="description" content="" />
        <meta name="author" content="" />
        <link rel="icon" href="<@wp.info key="systemParam"
paramName="applicationBaseURL" />
              favicon.png" type="image/png" />
              <!-- Le HTML5 shim, for IE6-8 support of HTML5 elements -->
              <!--[if lt IE 9]>
              <script src="<@wp.resourceURL />static/js/entando-misc-html5-
essentials/html5shiv.js"></script>
              <![endif]-->
              <@c.import url="/WEB-
INF/aps/jsp/models/inc/content_inline_editing.jsp" />
              <@c.import url="/WEB-INF/aps/jsp/models/inc/header-
inclusions_light.jsp" />

              <style>
              .editableform .control-group {
               margin-bottom: 0;
                white-space: nowrap;
               line-height: 28px;
               }
              </style>
    </head>
     <body class="purple" data-spy="scroll" data-target="#navbar-menu">
        <!-- Navbar -->
        <div class="navbar navbar-custom navbar-fixed-top sticky" role="navigation"
id="sticky-nav">
            <div class="container">
                <!-- Navbar-header -->
                <div class="navbar-header">
                    <!-- Responsive menu button -->
                    <button type="button" class="navbar-toggle" data-
toggle="collapse" data-target=".navbar-collapse">
                        <span class="sr-only">Toggle navigation</span>
                        <span class="icon-bar"></span>
                        <span class="icon-bar"></span>
                        <span class="icon-bar"></span>
                    </button>
                    <!-- LOGO -->
                    <a class="navbar-brand logo" href="#">
                        <img alt="acme-logo"  class="logo-img" src="<@wp.imgURL
/>Logo_Acme_Bank.png">
                    </a>
                </div>
                <!-- end navbar-header -->
                <!-- menu -->
                <div class="navbar-collapse collapse" id="navbar-menu">
                    <!--Navbar left-->
                    <ul class="nav navbar-nav nav-custom-left">
                        <!--frame 0 1-->
                        <@wp.show frame=0 />
```

```
                    <@wp.show frame=1 />
                </ul>
                <!-- Navbar right -->
                <ul class="nav navbar-nav navbar-right">
                    <!--frame 2 3-->
                    <@wp.show frame=2 />
                    <@wp.show frame=3 />
                </ul>
            </div>
            <!--/Menu -->
        </div>
        <!-- end container -->
    </div>
    <!-- End navbar-custom -->

    <!-- HOME -->
    <section>
           <!--frame 4-->
             <@wp.show frame=4 />
           <!--frame 4-->
    </section>
    <!-- END HOME -->

    <!-- Features Alt -->
    <section class="section" id="mortgage">
        <div class="container">
            <div class="row">
                <div class="col-sm-12">
                    <!--frame 5-->
                    <@wp.show frame=5 />
                    <!--frame 5-->
                </div>
            </div>
        </div>
    </section>

    <section class="section">
        <div class="container">
            <div class="col-sm-4">
                    <!--frame 6-->
                    <@wp.show frame=6 />
                    <!--frame 5-->
                </div>
                <div class="col-sm-4">
                    <!--frame 7 frame bpm -->
                    <@wp.show frame=7 />
                    <!--frame 7-->
                </div>
                 <div class="col-sm-4">
                    <!--frame 8 frame bpm -->
                    <@wp.show frame=8 />
```

```
                <!--frame 8-->
            </div>
        </div>
    </section>

    <section>
        <!--frame 9-->
        <@wp.show frame=9 />
        <!--frame 9-->
    </section>
    <section class="">
            <!--frame 10-->
            <@wp.show frame=10 />
            <!--frame 10-->
    </section>

    <section class="">
        <div class="container">
            <div class="col-md-12">
                <div class="text-center">
                    <!--frame 11-->
                    <@wp.show frame=11 />
                </div>
                <!--frame 11-->
            </div>
        </div>
    </section>

    <!-- FOOTER -->
    <footer class=" ">
        <div class="container text-center">
            <div class="row">
                <div class="col-md-12">
                    <!--frame 12-->
                    <@wp.show frame=12 />
                    <!--frame 12-->
                </div>
            </div> <!-- end row -->

            <div class="row">
                <div class="col-sm-6">
                    <!--frame 13-->
                    <@wp.show frame=13 />
                    <!--frame 13-->
                </div>
                <div class="col-sm-6">
                    <!--frame 14-->
                    <@wp.show frame=14 />
                    <!--frame 14-->
                </div>
            </div>
```

```
                </div>
            </footer>
            <!-- END FOOTER -->

            <script src="<@wp.resourceURL />static/js/jquery.ajaxchimp.js"></script>
            <script src="<@wp.resourceURL />static/js/jquery.sticky.js"></script>
            <script src="<@wp.resourceURL />static/js/jquery.app.js"></script>
        </body>
    </html>
```

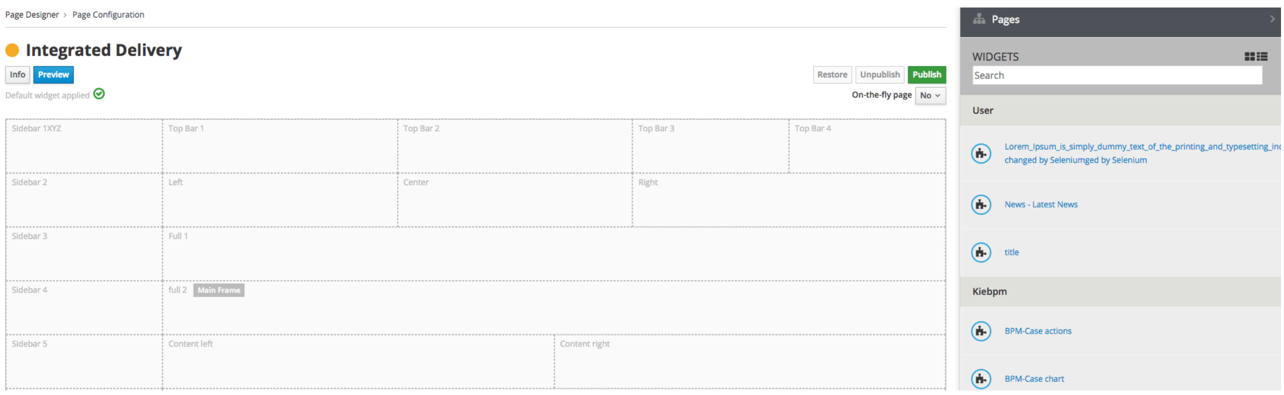
6. When finished, click **Save**.

CREATE THE APPLICANT PAGE

1. From the tabs along the top, select Page Designer > Page Tree > **Add**.
2. Enter a page title and a code. The Code field will auto-populate with a value similar to the Title and acts as the page's unique identifier. For example:
   - **Title:** *Application Home*
   - **Code:** *application_home*
3. From the Select Page Placement drop-down menu, select the page to act as this page's hierarchical parent.
4. In the Page Groups section, select an Owner Group and a Join Group.
   - Owner Group members have administrative access to this page
   - Join Group members are able to see the page
5. In the Settings section, select the page model you just created from the Page Model drop-down menu. Once selected, set the options for the remaining options in the Settings section.
6. Click **Save and Configure**. This opens the Page Configuration screen.

ADD WIDGETS

1. On the Page Configuration screen, locate the Widgets section on the right side of the screen.



2. Search for the following widgets and drag them into the specified frame:
   - Choose a language purple/light and drag to Top Bar 4

- Main banner purple and drag to Central Bar 1
- Left 3 steps purple and drag to Central Bar Left
- Right col help purple and drag to Central Bar Right
- Banner advisor purple/light and drag to Banner Advisor

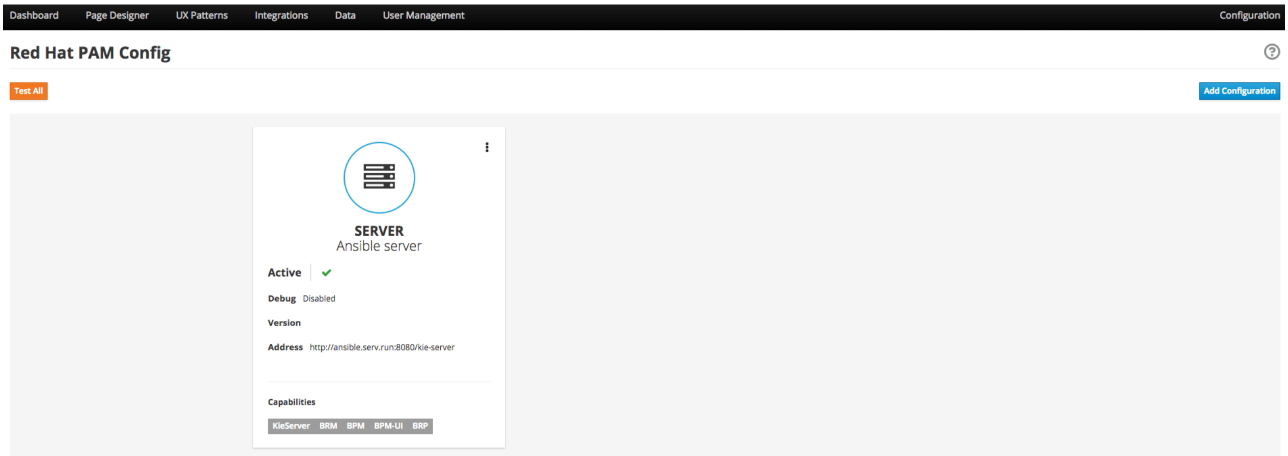
TIP	Click the **Preview** button to verify the appearance of the page before publishing.

3. When the widgets are in place and you are satisfied with the preview, click **Publish**.

TIP	Only click **Publish** after confirming that each widget has been configured properly.

INTEGRATE THE BPM FORM

1. From the tabs along the top, choose Integrations > Red Hat BPM Config > Add Integration.



2. In the Connection section, add all server information. For example:
   - General Settings section:
     - **Active:** On
     - (Optional) **Debug:** On
   - Connection section:
     - **Name:** Ansible Server
     - **Host name:** ansible.serv.run
     - **Schema:** http
     - **Port:** 8080
     - **Webapp name:** kie-server
     - **Username:** username for the process server administrator
     - **Password:** password for the process server administrator
     - **Conn. Timeout (in millis):** 500
3. Click **Test Connection** to verify a valid the configuration, then click **Save**.

4. Open the Page Tree by choosing the Page Designer tab > Page Tree.
5. Find your new page in the Page Tree and click its **More Options** button > Configure.
6. Search for the “BPM-form by Data Type” widget and drag it to the Central Bar Center frame.
7. Click the **Preview** button to verify the correct appearance.
8. Click **Publish**.

CONFIGURING THE LENDER APPLICATION

Switch to the Lender application view and enter the following credentials:

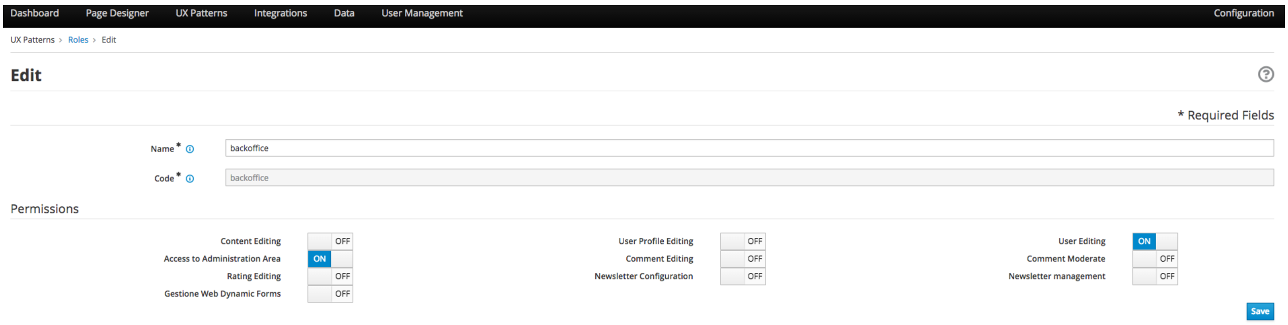
- **Username:** *admin*
- **Password:** *adminadmin*

In the Lender application, create a new role, a new group, and a new user.

- Roles determine a user’s access privileges within a group
- Groups provide all individuals within the group a doorway to access a page. The level of access is still determined by the role.
- Users are individuals that you add to groups and then assign a role within the group

CREATE A NEW USER ROLE

1. From the tabs along the top, choose User Management > Roles > **Add**.



2. In the Name field, enter a meaningful name for this role. For example: backoffice
3. (Optional) Add a different code for the role. The Code field is mandatory and Entando assigns a code based on the Name field by default. You can, however, change this value before you save the user role.

   NOTE Once you save the role, you can no longer change the Code value.

4. Assign Permissions based on the activities expected of this role. Leave all options in the Permissions section set to “Off.”
5. Click **Save**.

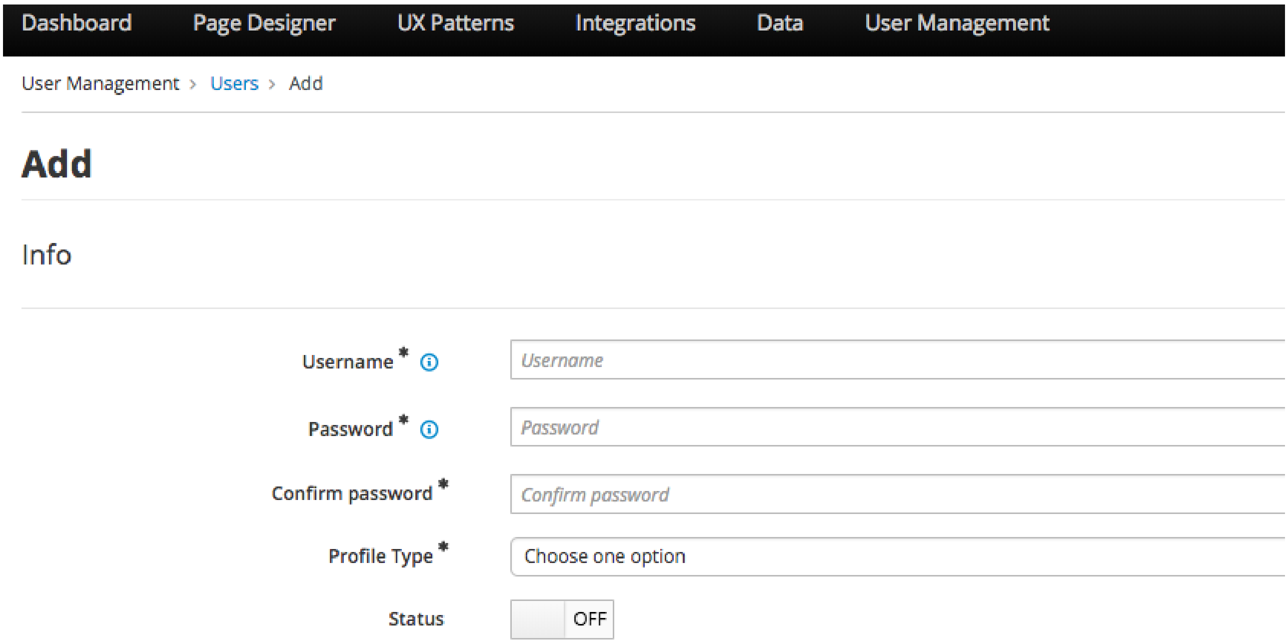
CREATE A NEW USER GROUP

1. From the tabs along the top, choose User Management > Groups > **Add**.
2. Enter the name Lender and keep the matching Code content (e.g., lender).
3. Click **Save**.

CREATE A NEW USER

Unlike the consumer side, the Lender application requires authentication.

1. From the tabs along the top, choose User Management > Users > **Add**.



2. In the Username field, enter:
   lender

NOTE	The username must be between 8-20 characters. You can use numbers, underscores, special characters, and upper or lowercase letters.

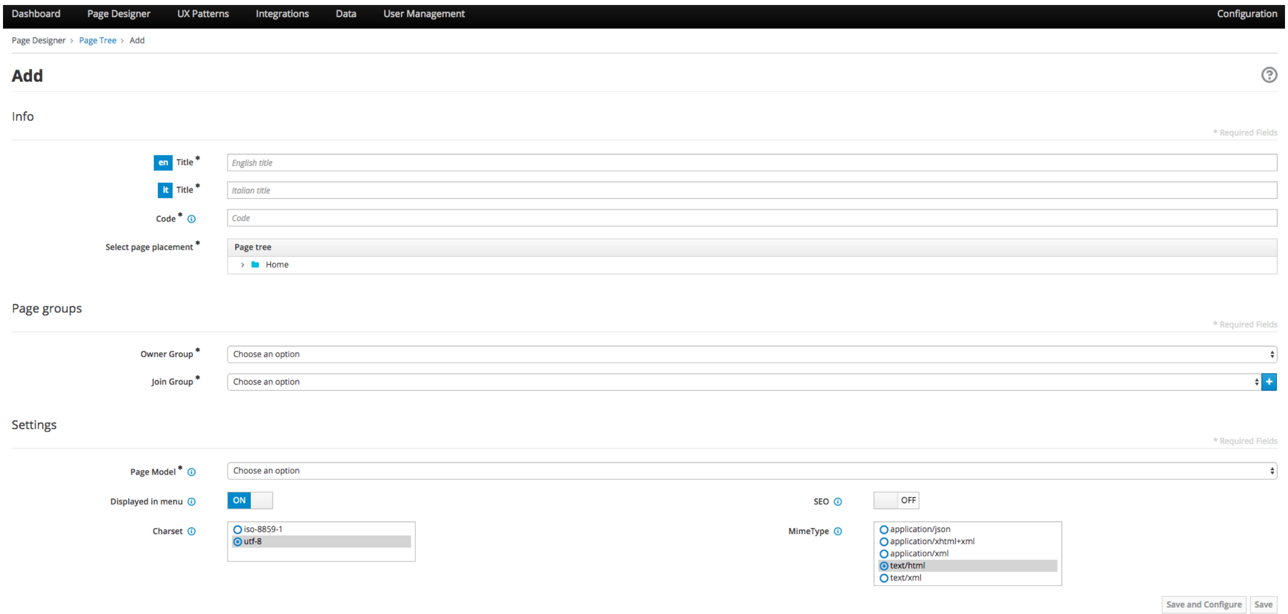
3. Enter a password.
4. From the Profile Type drop-down menu, select "Default User Profile."
5. Toggle the Status to "On."
6. Click **Save** to create the user and return to the Users screen.
7. From the table on the Users screen, find your new user profile and click **More Options** > Manage authorizations for: *your profile name*. Set the following options:
   - **User Group:** Lender
   - **User Role:** backoffice
8. Click **Add** and then click **Save**.

CREATE THE LANDING AND LOGIN PAGES FOR THE LENDER APPLICATION

1. From the tabs along the top, choose the Page Designer tab > Page Tree and select the Home folder.
2. Click the Home folder's **More Options** button > Edit.
3. In the Title field, enter:
   Login
4. In the Page Model field, select "Light-BPM.""
5. Click **Save and Configure** to open the Page Configuration screen.
6. Search for the "Lender login" widget and drag it to the "Central Bar mortgage 2" frame.
7. Click the **Preview** button to verify the correct appearance.
8. Click **Publish**.

GRANT ACCESS TO THE PRIVATE AREA AND CREATE THE LENDER PAGE

1. Log out of the Lender Application.
2. Log back in to the Lender Application using the credentials you created in the Create a New User section.
3. From the tabs along the top, select Page Designer > Page Tree > **Add**.



4. In the Title field, enter:
   Lender

   The Code field will auto-populate with a value similar to the Title (e.g., lender).

5. From the Owner Group drop-down menu, select "Lender."
6. From the Join Group drop-down menu, select "Free Access."
7. From the Page Model drop-down menu, select "Inspinia BPM."
8. Click **Save and Configure** to open the Page Configuration screen.

9. Click **Apply the default widget**.

INTEGRATE THE BPM

1. From the tabs along the top, choose Integrations > Red Hat BPM Config.
2. Click the **More Options** button.
3. Verify the following options listed below are in place. If any options do not match this documentation, you can manually change it to match this documentation and then click **Save**.
    - General Settings section:
        - **Active:** on
    - Connection section:
        - **Host name:** ansible.serv.run
        - **schema:** http
        - **Port:** 8080
        - **Webapp name:** kie-server
        - **Username:** bpmsAdmin
        - **Password:** bpmsuite1!
4. From the tabs along the top, select Page Designer > Page Tree.
5. Find your page (e.g., lender) in the Page Tree and click the **More Options** button > Configure.
6. On the Page Configuration screen, locate the Widgets section on the right side of the screen. Search for the following widget and drag it into the specified frame:
    - BPM-Datatable > drag to Full 1 frame.
7. The Settings action of the BPM-Datatable widget allows you to manage the process. The screen page allows you to:
    a. Choose the process that you need and BPM group. Currently the only one process available is “MortageApplication.”
    b. Choose the group involved in the BPM process. Select the “broker” group.
    c. Customize the data table. Choose the elements: id, name, subject, desc, status, priority, skipable, owner, created, activated.