AGS Prime Tutorials for Domain Administrators

Tutorial 1: How to Build a Basic AGS Prime Application

Version: 2021-04-01

AGS Prime Tutorial: Building a Basic Application

Estimated time to complete: 30 minutes

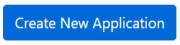
Goal: at the end of this tutorial you will be able to build a basic, secure, functioning Prime application for use in your organization's environment.

The application will allow you to enter information into a form, save that form, and see a view of all the records you have created. While Prime applications can be very extensive and sophisticated, the skills learned in this tutorial are the basics you will use when building all applications.

Tutorial Guide

This section includes various conventions and formatting descriptions that are used throughout the manual to describe specific aspects of the software.

Text Button

A text button will feature an image of the exact text button you should be interacting with. The button itself features the name, so no additional text will be provided. Note that the button is a clip and will not include the other elements surrounding it in the actual application.
Example: 

Pictorial Button

A button without text is a pictorial button. These buttons feature simple icons to designate the action they perform. For clarity, we will include the name/action of the button in parentheses following the image of the button.
Example:  (Edit Application)

Aspects of the UI

Some aspects of the user interface are referred to as proper nouns and used as a direct object, and therefore will be capitalized and styled in a way that separates them from descriptions of the UI.
Example: Data Sets, Applications, Security

Input Text

When describing text to be entered as data into a field within the application, we will use the style below. The style may also feature brackets surrounding user-specific information, like first name.
Example: `Job Fair Tutorial for [enter your name]`

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Tutorial Guide – Cont.

Special Notes

At times, extra information will be included to help you better understand the logic behind certain actions or to explain an optional feature.
Example:

> These are the basic steps. We will learn about advanced functionality in a later tutorial.

Action Items

This tutorial guide will feature a series of actions in a sequential order that you must perform to create the desired product. These actions will be denoted by the style below.
Example:

> This is what an action item looks like. Follow the directions in your test application.

Figure Descriptions

This tutorial guide will feature several figures, images, or screen captures to aid in learning and provide a point of reference to double check your work. The description of these figures will be formatted using the style below and will feature a description of the main items in the figure or how the figure relates to the application-building process.

Example: *Figure – Sign in screen with login information inputted into the corresponding boxes*

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Our Scenario

For the purpose of this tutorial, you will be creating an application to track and manage participants visiting a fictitious booth at a multi-day job fair.

Data to Be Collected by Our Job Fair Sample Application

For each of the participants you or your colleagues speak with at the job fair, you will want to create a basic "profile" record and collect the following information:

Participant Profile

- First Name
- Last Name
- Date of Registration
- Email Address
- Current Employment Status
- Comments

To build the application, you will first need to learn about the basic components that go into all Prime applications.

What Goes Into an Application?

All Prime applications are made up of at least four components: *Data Sets*, *Forms*, *Views*, and *Modules*. For any application, you will need at least one of each. This tutorial will teach you the basic functionality of each and learning just these four will allow you to build many functioning applications. Before you begin the tutorial, let's take a moment to discuss each of these basic components. Detailed step-by-step instructions for building each component is provided in an upcoming section.

Think of it like this…

> **Data Sets** are collections of data elements or fields containing stored record data
> **Forms** are used to create a record to be stored in the Data Set
> **Views** are used to show us a list of the records that have been created by using Forms
> **Modules** "bundle" Forms and Views together to make an application

Data Sets

Data Sets are where Data Elements you want to collect and manage in your application are listed and where, conceptually, the data is stored as records. You will create at least one Data Set for each application and for that Data Set you will list as many Data Elements (fields) as you need for a given business task.

> For example, you know that this application will need a "Participant Profile" Data Set to hold records for each of the individuals you will meet with during the Job Fair, and you know that the Participant Profile will be made up of five Data Elements (First Name, Last Name, etc.) as previously mentioned.

The Data Set is where you will create a place to store the Participant Profile records and let the system know about the six Data Elements (see list above) that will make up each record.

Forms

Forms are the most familiar part of the process and are the "screens" or "pages" where Users will actually enter data. Forms are used to both create new records and to edit existing records. Each Form will typically have one Data Input Field for each of the Data Elements you listed in your Data Set (again, Last Name, First Name, etc.)

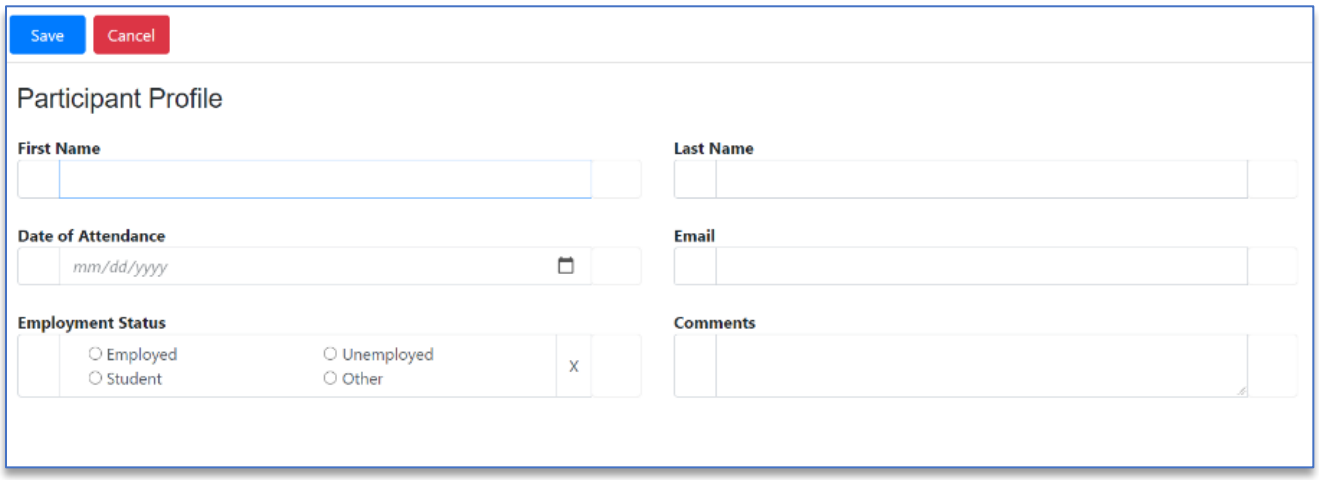


Figure – shows a simple Form with one field for each of the Data Elements in our Data Set.

What Goes into an Application? – Continued

Views

A View is a "list" or a "table" showing the records that have been created in a Data Set (using the Form). The View has one row per record and has columns for one or more of the Data Elements (First Name, Last Name, etc.) that you defined as a part of your Data Set and Form. In this tutorial, you will need one View to show a list of the Participant Profiles that you will create with the Form.

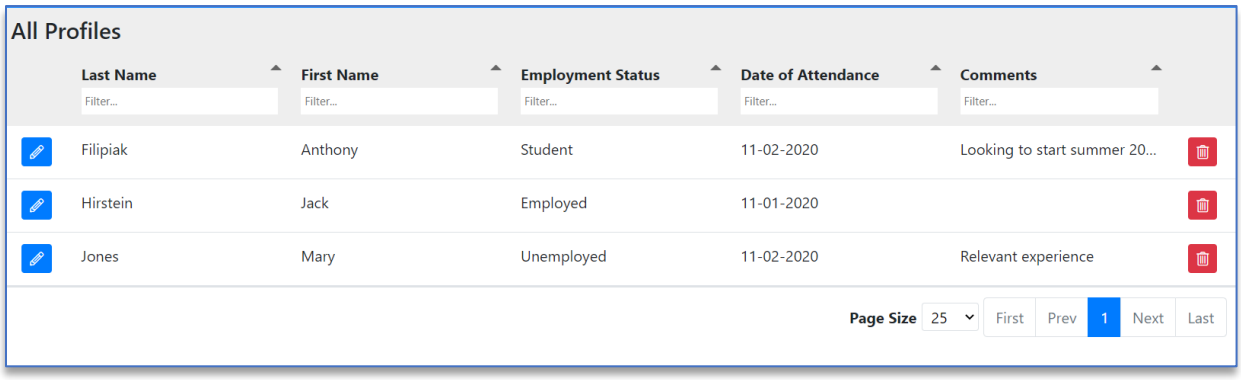


Figure – The All Profiles View. Note the columns for the Last Name, First Name, Employment Status, and Date fields as well as the buttons for editing the existing documents (the blue pencil button to the left) and for deleting unwanted documents (the red recycling bin button to the right); more on these later.

Modules

Lastly, a Module is simply a collection of Forms and Views that make up a logical grouping of business functionality. In this tutorial, you only need one Module, called "Job Fair Management", into which we will place our Form (“Participant Profile”) and our View (“All Profiles”).

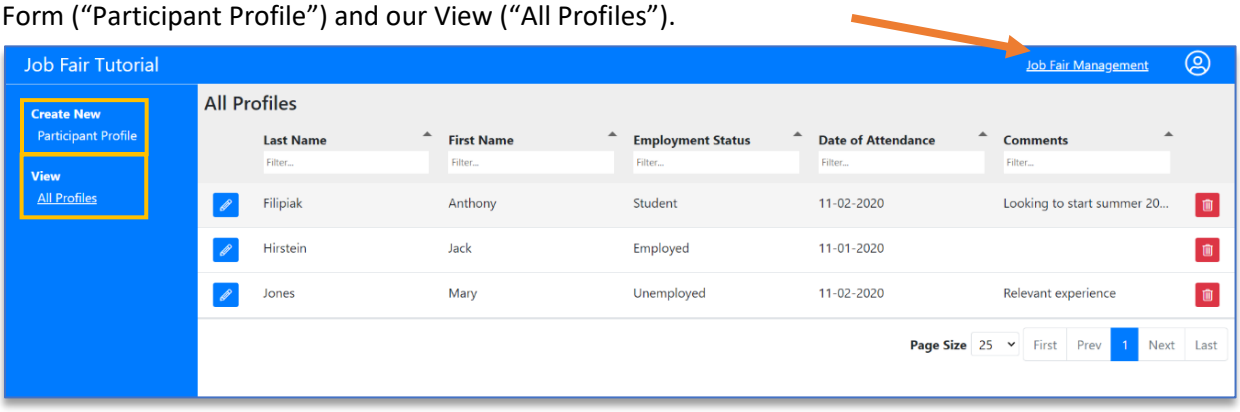


Figure – The module labeled Job Fair Management, as well as our Form "Participant Profile" and the View "All Profiles".

Recap of the General Steps for Building Prime Applications

For every application you create over time, the following will be the general order in which you will create components and bundle them together with a Module.

1. Create a new, empty application
2. Create a Data Set and add Data Elements to it
3. Create a Form associated with your Data Set and drag Data Fields from your Data Set onto the Form
4. Create a View associated with your Data Set and drag Data Elements from you Data Set into the View to make columns
5. Create a Module, assign your Form and View to it, and add it to your application

You will then be able to launch your application and start using it! We will go through each of these steps below.

Building an Application

Step 1: Create a New Application

To begin, using your Administrative Credentials, sign in to your Prime Domain Administrative Console.

> Your Admin Credentials were supplied upon the setup of your organization's domain

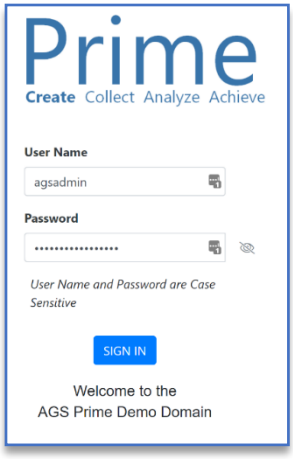


Figure – Administrative Console Sign-In Screen

Click *Applications* in the Banner towards the upper right corner of the application.

Here you will see a list of any existing applications in your Prime Domain. In the figure below, we see a list of applications. Your screen will begin to look like this as you create more applications; for now there may be no applications listed.

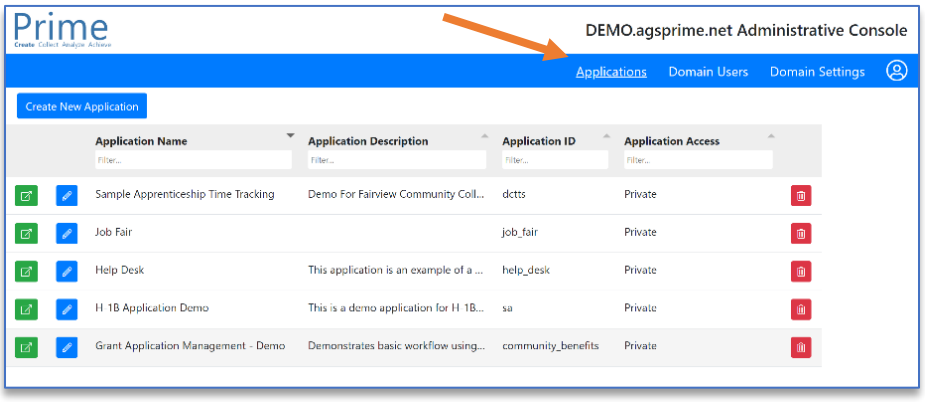


Figure - Sample screen showing the Administration Console after several Applications have been created.

Click **Create New Application** , the system will display the New Application pop-up box.

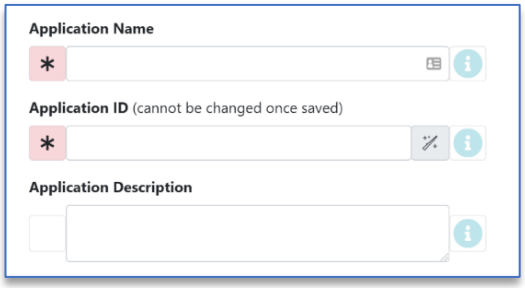


Figure – the Create New Application pop-up box

We need to fill in three fields: the Application Name, the Application ID, and the Application Description.

Create an Application – Continued

The Application Name is the "human-readable" name you give to your new application. This is the name that you will see when editing the application and that your Users will see when looking for an application to launch.

Enter `Job Fair Tutorial` in the Application Name field.

If you, or others in your organization are going through this tutorial, feel free to change this name as needed. For example, each person might want to add their name or initials to the name of their application such as "Mary - Job Fair Tutorial".

NOTE: You cannot have more than one application in the domain with a given name or ID.

The Application ID is the "programmatic name" that different parts of the system use to uniquely identify your application. Note that there is an autocomplete button at the end of the Application ID field. That is recommended and for this tutorial, we will use that button to allow the system to automatically create an ID for our application.

The Application Description field is not strictly a required field (no asterisk at the beginning of the field), but it is good practice to always enter a description of the application we are working.

Click (Autocomplete) in the Application ID field.

Enter `Training Tutorial Application for [enter your name]` in the Application Description field.

Click **Save** at the top of the New Application form.

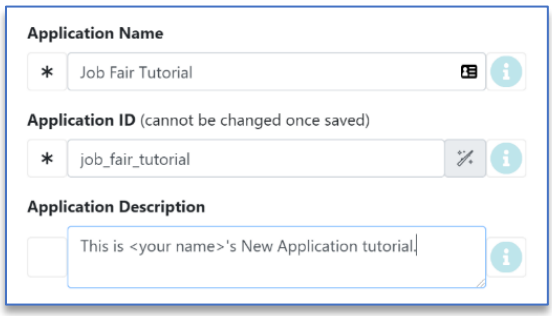


Figure – shows the same fields as the previous figure but with the fields completed.

The new application will be created, and you will be taken to the screen of Component Editors.

On this screen you will see the various editors for creating different types of components in a Prime application. For this tutorial we will only be working with **Data Sets**, **Forms**, **Views**, and **Modules**.

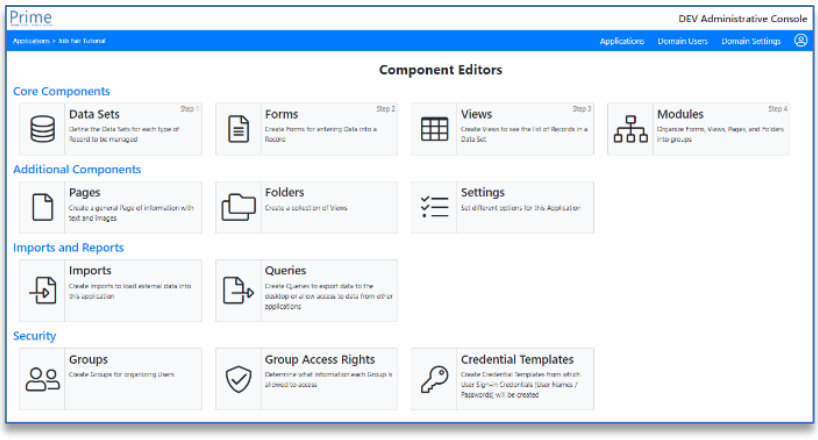


Figure – The Component Editors Screen

Step 2.1: Create a Data Set

In this step we will create a Data Set and add the Data Elements we wish to collect. We create Data Sets and Data Elements using the Data Sets Editor.

Click *Data Sets.*

This will open the Data Sets editor, showing you a list of Data Sets currently in the application. As this is a new application, your list will be empty. Let's create a new Data Set.

Click Create New Data Set

The system will display the New Data Set modal (a pop-up screen or message box). Fill in the following fields:

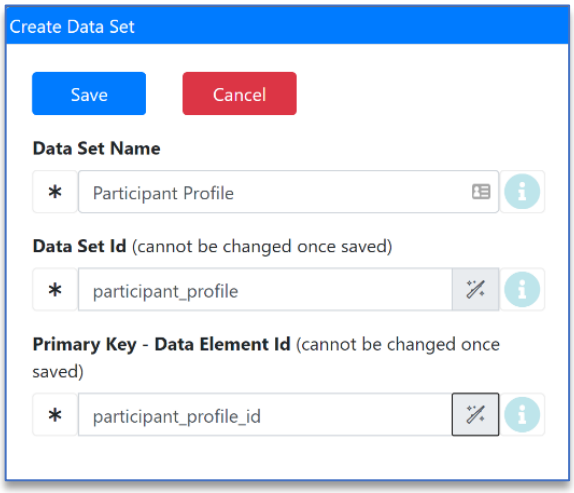


Figure – Create Data Set modal filled in.

In the field Data Set Name, enter `Participant Profile`

Click (Autocomplete) at the end of the Data Set ID field.

Click (Autocomplete) at the end of the Primary Key - Data Element Id field.

Click Save to create your Data Set.

We have now created a new Data Set named Participant Profile, but the Data Set does not yet have any Data Elements. We will need to create one Data Element for each of the items of information specified above (Last Name, First Name, etc.).

Step 2.2: Add Data Elements

Click  (Edit Data Set)

This will show you a list of the Data Elements currently in the Data Set. There will be two Data Elements already created for you, the Primary Key and the Import Id. We will learn more about these Elements in other tutorials. For now, we will create the other data elements we need.

The system will display the Create Data Element modal.

Click Create New Data Element

In the Data Element Name field enter `Last Name.`

Click  (Autocomplete) at the end of the Data Element ID field.

Click on the Data Element Type field and select ***String***. (We will explain data element types later).

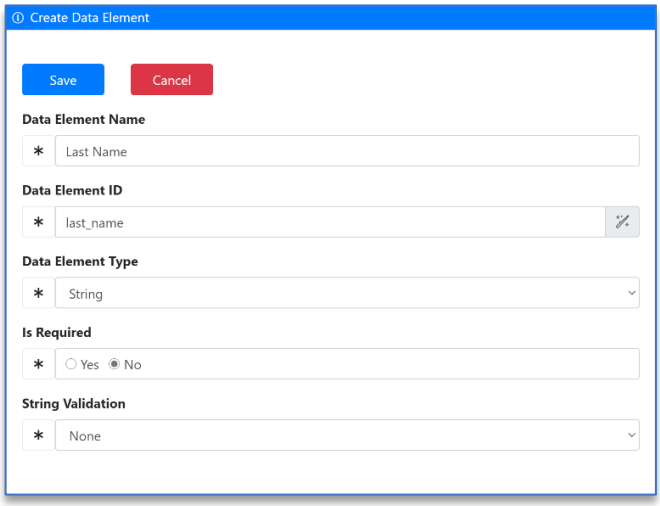


Figure – Completed Create Data Element modal screen for the Last Name Data Element.

You screen should look like the figure above. We will learn more about the *Is Required* and *String Validation* fields in a later tutorial.

Click Save

This will create the Data Element and now you can see that there are two Data Elements in your Data Set, the Primary Key and the Last Name field.

Create the First Name, Comments, and Email fields using the same process as you did for the Last Name field.

Now let's create the Date of Registration field. This is the same process except we will select Date as the field type instead of String.

Create Date of Registration Field (use the same process but select **Date** as field type).

Add Data Elements - Continued

Lastly, we will create the Employment Status fields. This will be a Categorical field. This means that the field will have predefined values from which the User will select. Drop-down fields, check box fields, and radio button fields are all categorical fields, allowing you to select one or more values from a predefined list. During the creation of the new Employment Status field, we define the allowed values.

Click Create New Data Element

Enter `Employment Status` in the Data Element Name field.

Click (Autocomplete) at the end of the Data Element ID field.

Click the Data Element Type drop-down field and select **Categorical**.

Only the checkbox field will allow the user to select more than one option, but both the drop-down and radio fields allow the selection of just one value

When you select Categorical in the Data Element Type field, you are presented with additional fields. In this case, the screen is asking for the list of allowed values you would like the application to accept for this field. You may need to scroll down a bit to see the full contents of the screen. Let's create the four predefined, categorical values agreed to earlier.

Enter `Unemployed` in the Text Field.

Click (Autocomplete) at the end of the Alias field.

Click Save Value

Repeat this for the remaining three values of Employed, Student, and Other.

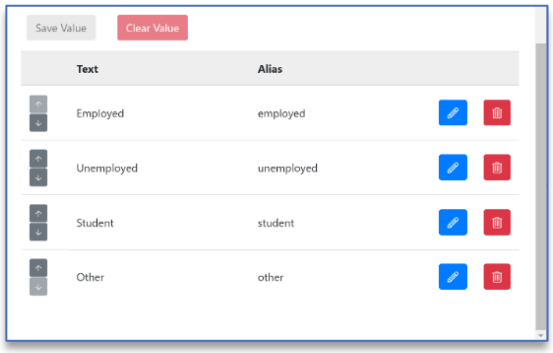


Figure – Categorical Values for Employment Status Data Element

Scroll up to the top of the modal screen and Click Save

That's it! The Participant Profile Data Set has been created. We now have a Data Set filled with the necessary Data Elements to allow us to create Forms and Views.

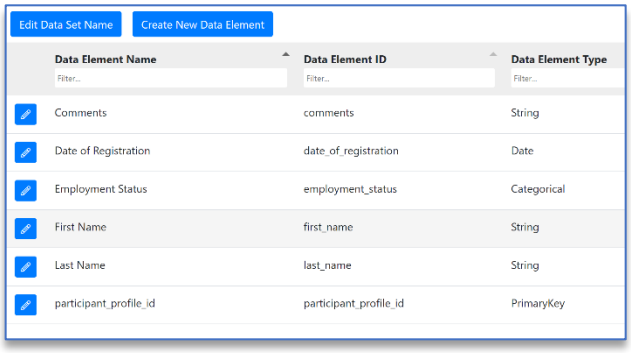


Figure – All Data Elements for the Participant Profile Data Set

Step 2.3: Navigation Back to Component Editors

In between steps, you must navigate back to the component editors' screen. Some editors will bring you back to this automatically, otherwise use the bread crumb navigation in the upper left, below the banner.

Navigate back to the list of Component Editors by either of these two methods.

Use the bread crumb navigation by selecting the name of your application.

- Applications > **Job Fair Tutorial** > Data Sets.

or

Click *Applications* in the upper right as we did before and then click  (Edit Application) next to the Job Fair Tutorial application.

Either approach should take you back to the Component Editors screen.

Step 3.1: Create a Form

Next, we will create a form using the Forms Editor that will be used to collect Data Elements and store them within a record in our Participant Profile Data Set.

Click *Forms.*

The system will present a view of all the forms currently in this application. For now, the list will be empty so let's create a new Form.

Click Create New Form

The system will present the Form Settings tab for a new Form.

Enter `Participant Profile` in the Form Name field.

Click (Autocomplete) at the end of the Display Label field.

Click the Select Data Set drop-down field and select **Participant Profile**.

Click Save

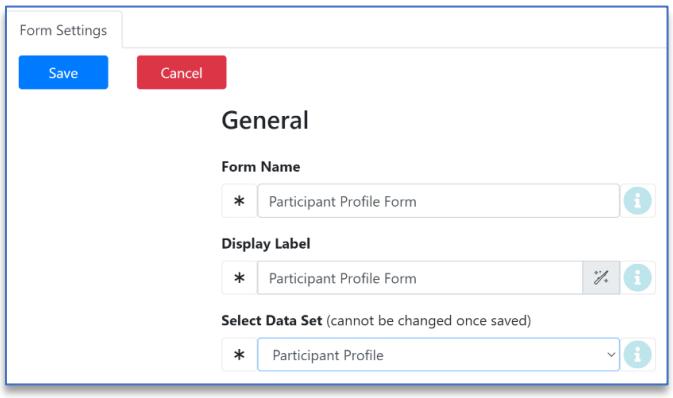


Figure – General Settings for creating new Form

The new, empty form will be created, and you will see two new tabs appear, the Layout tab and the Rules tab. The Layout tab will allow us to put data elements from the Data Set onto the form and make other stylistic modifications.

The Rules tab allows us to create Business Rules for managing data validation and workflow at the form level. We will layout the form now, and we will come back to Business Rules later in this tutorial.

Step 3.2: Add Fields to the Form

When laying out the Form we will be interested in doing three things: dragging Data Elements onto the Form from a list of Data Elements in our Data Set, putting some text on the form to add a title to the Form, and making some small changes to the fields to improve the presentation to the User.

Click *Layout.*

On the Layout tab you will see a list of all the Data Elements from the Data Set we associated with the Form. To make a field on the Form where a User can enter data for a given Data Element such as Last Name, click and drag a Data Element from the left-hand list to the right-hand Form Layout Area.

As you drag the Data Elements from the Data Element List to the Form Layout Area you will see that the Data Element is removed from the Data Element list on the left. Once you drop a Data Element onto the Form Layout Area, you can click-and-drag them up or down to arrange the fields in any order. You can also click the red [X] (Remove) button to remove the field from the form and return it to the list of available Data Elements. Not all fields are required to be on the Form. For now, move the needed fields from the list of available Data Elements to the Form.

Click and drag each of the following fields onto the Form Layout Area and if necessary drag them up and down until the fields are in this order.

- First Name
- Last Name
- Date of Registration
- Email
- Employment Status
- Comments

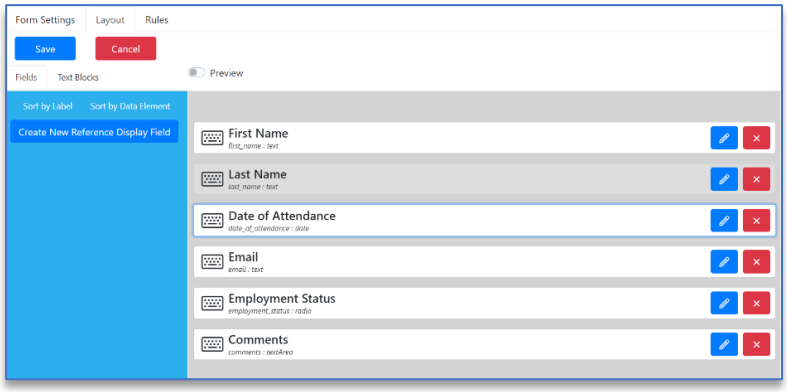


Figure – All Data Elements in the Form Layout Editor

Step 3.3: Add a Text Block Title to the Form

Next, we are going to add a title to the Form. We do this by creating a Text Block containing your desired form title and then dragging that Text Block onto the Form just as we did with the Data Elements.

Change the Display Item Type dropdown (located below the Save button) to “Text”.

Click Create Text Block

The system will display a form for creating a new Text Block.

In the Text Block Name field, enter `Title Text Block.`

In the Content field, enter `Participant Profile.`

Click once anywhere in the text "`Participant Profile`".

Click on **Normal** (between underline and numbered list icons), and from the drop list click **Heading 1.**

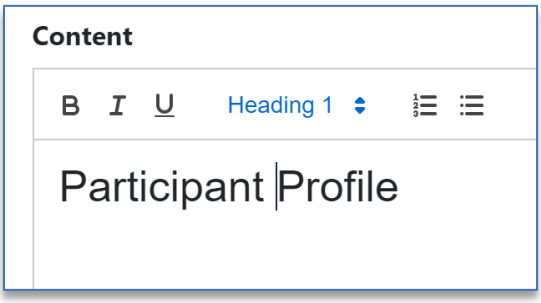


Figure – Text Block in the Heading 1 style

Click Save

Click on the name of the form in the bread crumb navigation to return to the form page.

You will see a new Card on the left-hand side for the Title text block you have just created.

Drag the Title Text Block Card to the top of the layout area.

Step 3.4 Style the Form

Add a Two-Column Layout

Now we will change the layout of the form from a one-column to a two-column layout. This is not required, but is a nice example of the control you have over the appearance of the forms.

> Click on the **Last Name** field.

This will select the field and cause the Styling Menu to open on the right-hand side of the Layout Area.

> Click on the Width control and from the drop list, select **50%.**
>
> Repeat this for each of the other fields.

Change How Employment Status and Comments are Displayed

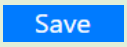
We will also change how the Employment Status and the Comments fields are displayed.

> Click  (Edit Field) icon on the Employment Status field.

The system will display a page of field-specific features. For now, we are only going to change the type of field display.

> Click on the Field Type field and from the drop list, select **Radio Button.**

This will cause the Employment Status field, with its four categorical choices, to be displayed as a Radio Button field instead of the Drop-down Field.

> Click  and then click on the form name in the bread crumb navigation to return to the general form settings.

Style the Form - Continued

Change the Presentation of Specific Fields

Next, we will change the way the Comments field is displayed. We will change it from being a one-line text field to being a Text Area field that will allow multiple lines of comments to be entered.

Click  (Edit) on the Comments field.

The system will display the features page for the Comments field.

Click on the Field Type field and from the drop list select **Text Area.**

Click Save and then click on the bread crumb navigation to return to the home page of the Form editor.

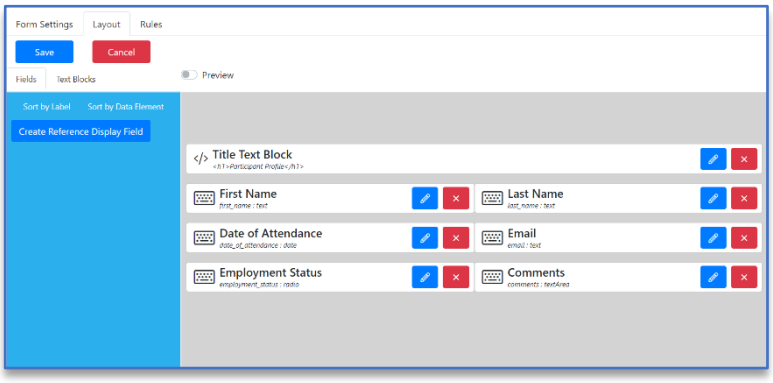


Figure – Form with all fields 50% width

Optional: Click the Preview slider to check what the form will look like to the end user. Click it again to return to the editor.

Click Save and we are done with the form!

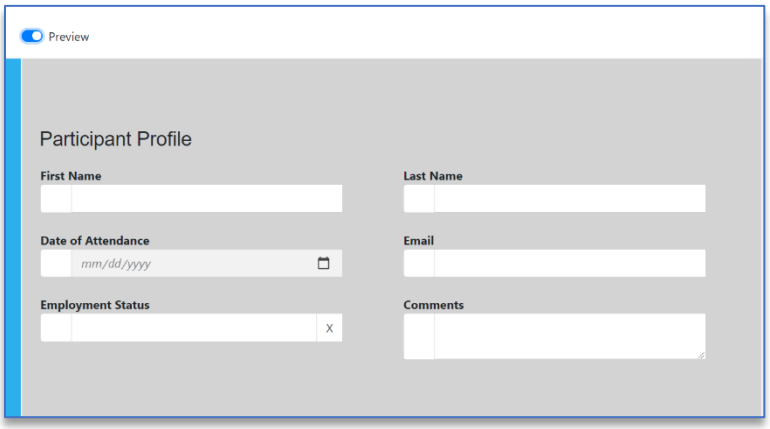


Figure – Preview of Form

Step 4.1: Create a View

We now have a Data Set that describes and stores our Records and a Form we will use to create records to be stored in the Data Set. Now we will create a View so we can see a list of the records that we have stored in our Data Set.

Click on the Application name in the bread crumb navigation to return to the list of Editors for our current application.

Click on *Views.*

The system will display a list of all the Views in the current application, which will be empty at this point.

Click Create New View

The system will display the Form for creating a new View. Let's fill out this form with just the information necessary to create a basic View.

Enter `All Profiles` in the Name field.

Click  (Autocomplete) to fill in the Display Label field value.

Click on the Data Set drop field and select **Participant Profile.** (You will also see three other Data Sets labeled as system-defined Data Sets: Import Job, Named Query and Report Launcher – we will cover these in a later tutorial).

This will associate the Data Set we created earlier with the View, the same way we associated the Data Set with the Form in the previous section.

Click on the When Deleting Documents…drop list and select **Last Name.**

Click Save

Step 4.2: Style the View

After saving the Create New View form, the Columns tab will appear.

Click the *View Columns* Tab.

You will see on the left-hand side three sub-tabs for Data Elements, Reference Data Elements, and Buttons. Looking at the Data Elements sub-tab you can see the list of Data Elements from the Data Set we associated with our view on the View Settings tab. We build Views by dragging over the Data Elements we want to be our columns, and adding any functional buttons we may want, such as the ability to edit or delete documents.

As Views get wider with the addition of more columns and buttons, you will be able to scroll the Layout Area left and right to see the entire set of columns. It is sometimes easier to zoom your browser to see the entire set of columns at one time and zoom back in when done.

Drag all the Data Elements from the left-hand menu into the View Layout area and arrange them in this order: Last Name, First Name, Date of Registration, Employment Status - Text, and Comments.

Click the *Buttons* sub-tab.

Drag the card for the Edit Record button into the View Layout area and place it as the first column on the left.

Click the drop-down list in the Edit Record button and select **Participant Profile**.

By selecting Participant Profile in the Edit Record button, we are telling the program that this is the Data Set we want the system to edit for a specific record if you click the Edit Record button in the live View.

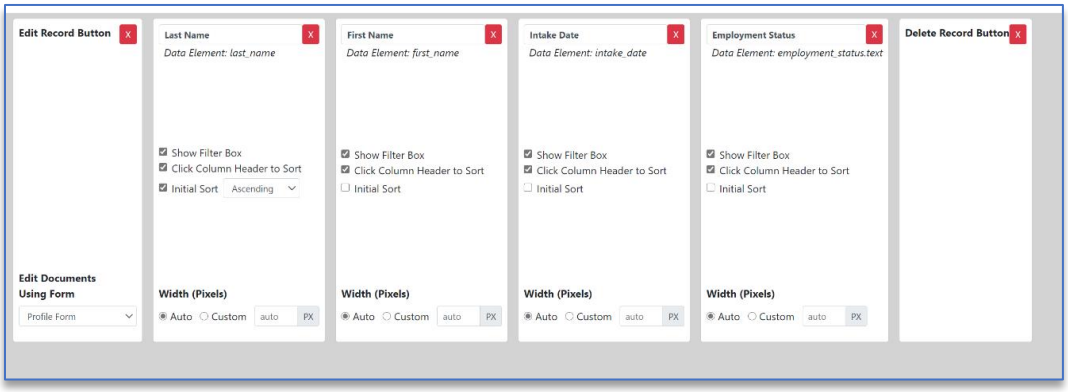


Figure – The View arranged with all the elements described above

Drag the card for the Delete Record button into the View Layout area and place it as last column to the right.

Click **Save** . We are done with the View!

Step 5.1: Create a Module

The last Step in the basic application-building process is to create a Module to hold and manage our Forms and Views. Modules are "containers" for our Form and View and provide us with the ability to create a Menu for allowing Users to interact with those Forms and Views.

The use of Modules is entirely a matter of organizing your Application. You only need one Module, and that one Module can hold all your Forms and all your Views. However sometimes it may make sense for you to divide the Forms and Views across several Modules, grouping forms and views around a particular business process.

> For example, if we were to extend our Job Fair Application to include Employers that were also attending the event or that were working with the Participants, we might have Forms and Views related to those Employers. In that case we might have a Separate Module for those Forms and Views.

> Another common example would be the use of an "Admin" Module. You will often have Forms and Views that you have created for managing an Application that you do not wish to be a part of your User's experience of using the Application. This would include items such as Staff User Profiles, or (as we will see in additional training guides), Reports, Queries, or Import Jobs. All these items could be placed in the Admin Module and Security settings will allow you to hide that module for non-Administrative Users.

For this exercise we will have only a single Module but in most Applications, you may have several Modules, each of which is used to hold the Forms and Views needed for a specific business function.

Return to the list of Editors (bread crumb navigation) and Click on the *Modules* editor.

The system will display a View of all Modules in the Application. This will be empty to start with.

Click Create New Module

Fill out the fields on the top section as follows:

Enter `Job Fair Management` in the Module Name field.

Enter `Job Fair Management` in the Display Label field. This is the Label that will be in the Banner of your Application on which you will click to access the Module.

Click  (Autocomplete) at the end of the Module ID field.

Click on the Default Presentation drop field and select All Profiles from the View section. This tells the Module what to display in the Main Content Area when the Module is first selected (by clicking its name in the Banner).

Create a Module – Continued

Click on the *Menu Builder* sub-tab.

You will see four sub-tabs: Forms, Views, Dashboards, and Pages. For this exercise we only have one Form we can create and one View to access so let's add those to our Menu. We currently have no Dashboards or Pages (that's for another tutorial). On each of these sub-tabs you will see a list of item cards for the Forms and Views we have created that can be added to the Module Menu.

Click the *Forms* sub-tab.

Drag the Participant Profile card from "Available Forms" into the layout area, "Forms Included in Menu".

If we had more than one Form you would be able to drag them up and down in the layout area to arrange the order in which they are displayed in the Module Menu.

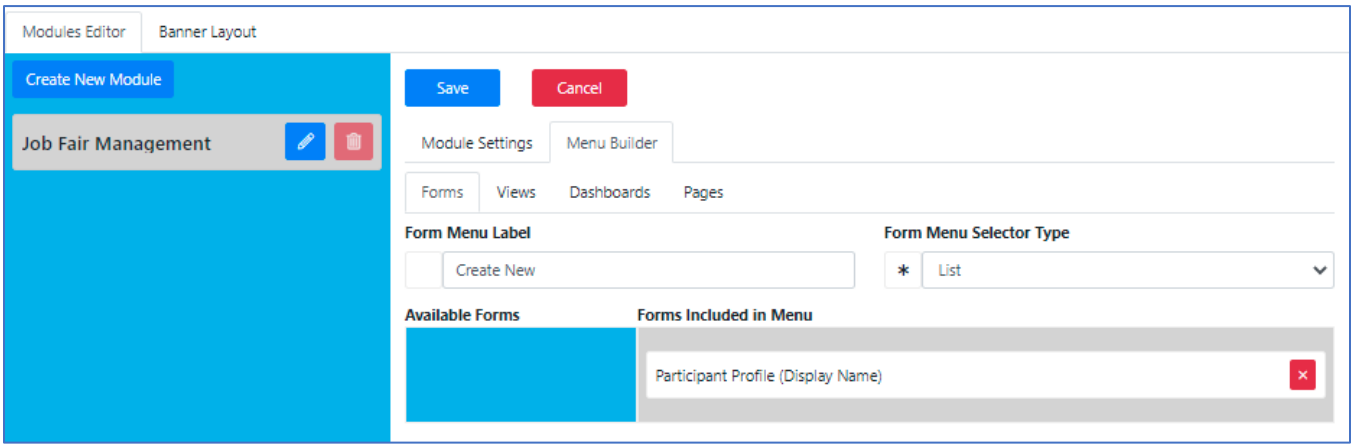


Figure – The Job Fair Management Module after dragging the Participant Profile into the "Forms Included in Menu" area.

Click the *Views* sub-tab.

Drag the All Profiles View item card into the layout area.

Click Save

That's it for building a Module.

The last step in creating our Application is to add our new Module to the Application's Banner.

Step 5.2: Add the Module to the Application Banner

Click the *Banner Layout* tab.

On the left you will see an Item Card for the one Module we have just created.

Drag the “Job Fair Managemet” Item Card into the Layout Area.

As with Module Menus, if there were more than one Module in our application, we would be able to drag the cards left and right to arrange the order in which they appear in the Application Banner.

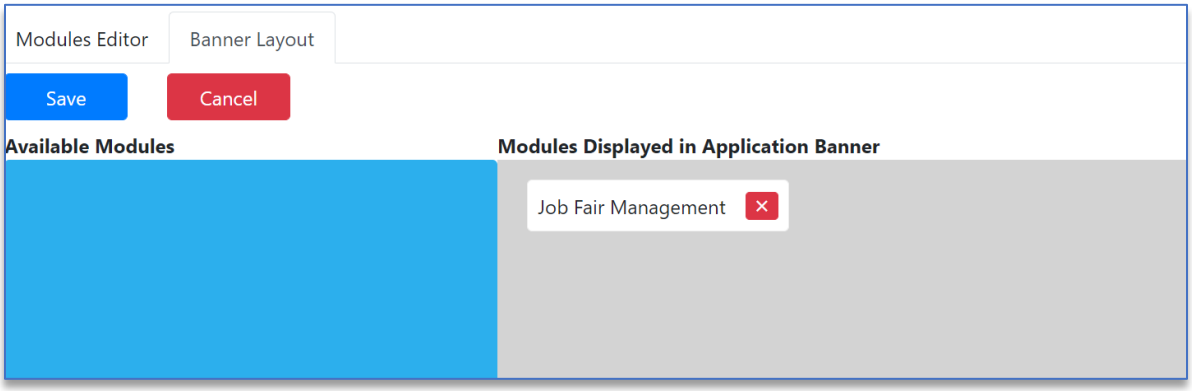


Figure – Our Job Fair Management Module has been added to the Application's Banner

Click Save

We're done building!

Launch and use the Application

Now we will launch the application. Let's use our Participant Profile form to create records and use our All Profiles View to examine or edit records.

Click on *Applications* in the bread crumb navigation to return to the list of Applications in our Domain.

There will be at least one Application, our new Job Fair app.

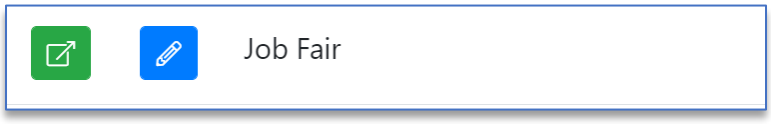


Figure – Applications Table, zoomed in on the buttons to launch or edit Job Fair Application

Click (Launch Application) next to the name of the Application. A new browser tab will open displaying the Application.

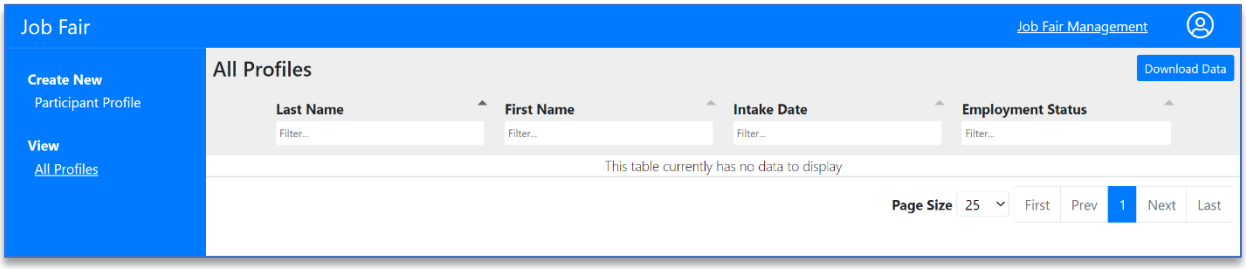


Figure – Finished Application once launched

Click **Participant Profile** on the Module Menu (under Create New) to create a new blank Participant Profile form.

Enter content into all the fields and save the form.

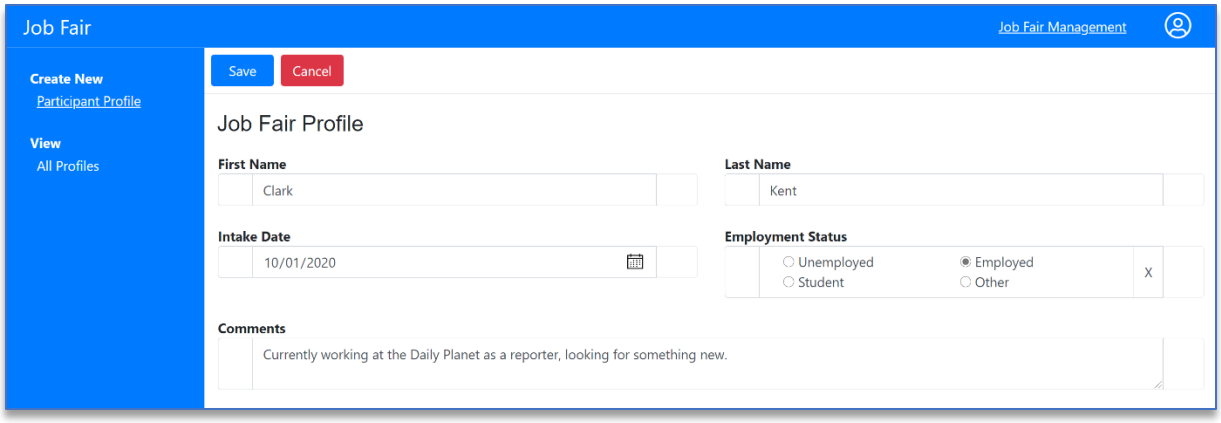


Figure – A populated Participant Profile form

The System will save the new record and immediately display the All Profiles View, showing us the new record we have created and saved into our Data Set. Note that now that there is a record, the Edit and Delete buttons we added to the View are being displayed.

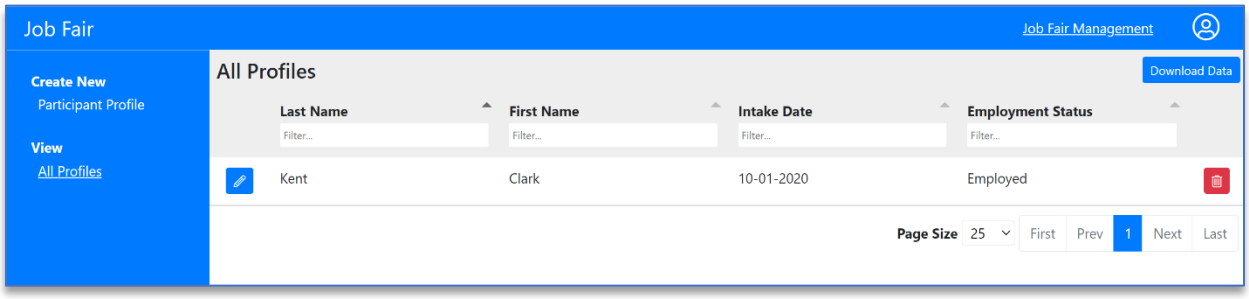


Figure – A new record has been created and is displayed in the View

Repeat the steps above to create three or four new records.

Click back to *All Profiles* to view the records you have created.

This concludes the tutorial.