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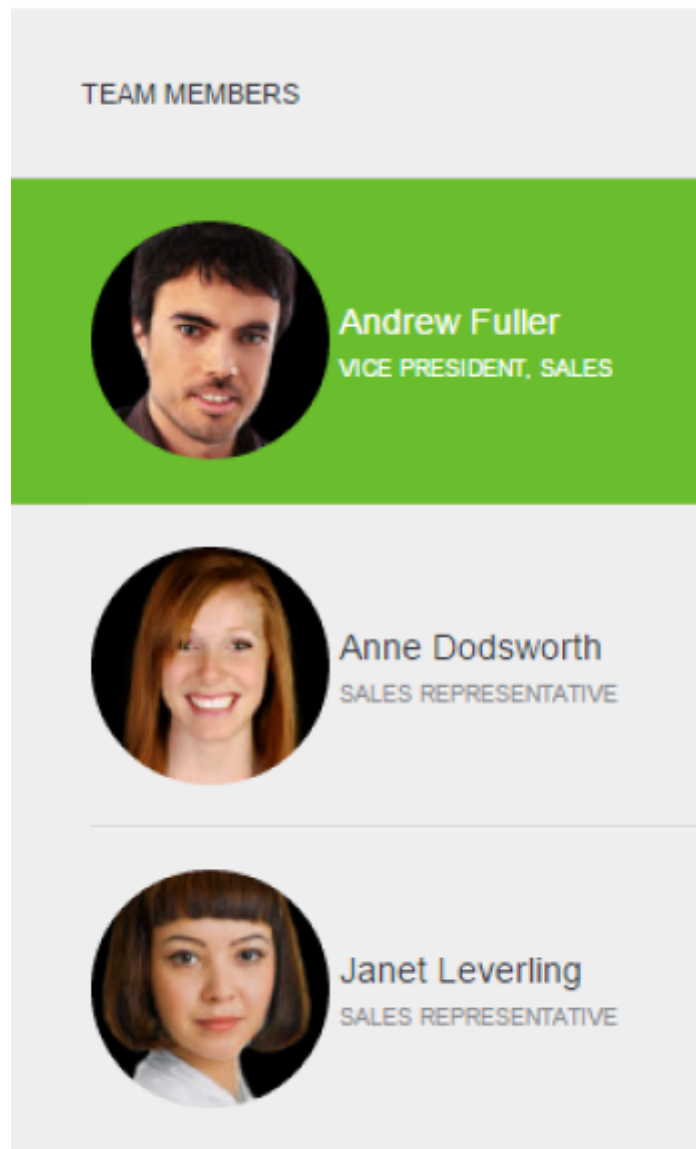
data, data presentation, query, ui, user interface, custom query, concepts

Custom Form of Query Results

The custom form of query results shows instances of a business object found by a query according to a custom HTML template or a *presentation* defined for this business object. This may be useful if the configurator wants to provide a more customized layout of the query results than the one offered by the standard form and/or include different visual effects not supported by the standard layout, such as foreground or background images.
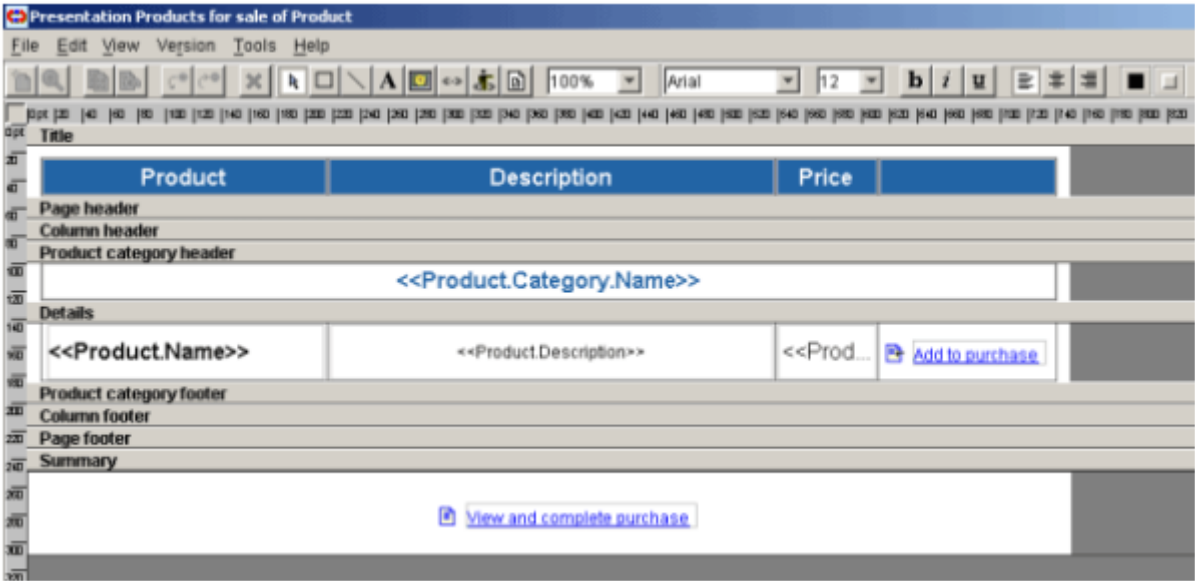

On the picture above each instance of the Customer object is represented by an HTML fragment that shows the Name, Title and Photo attributes of the customer.

Business Object Presentation

Presentation of a business object is defined as part of the business object configuration (see Defining

[Presentations](#)) and is designated to display the results of a particular [query](#) in a non-standard fashion. The layout of a presentation is created using the Report/Presentation Designer in the Configuration Tool. The following picture shows an example of a presentation defined for a business object `Product`.

If such a presentation is designated to display results of a query that finds all available products, running such a query in the Operation Mode will produce the following:

The presentation layout consists of different sections called *bands*. Each band has its own purpose in the generation of the final output. Each band may contain design elements. There are several types of design elements, such as static texts, tags, images, rectangles, lines, conditional elements and sub-presentations. Probably the most frequently used design element is the tag element, which may refer to attributes of a business object and also contain arithmetic expressions with these attributes. Most of these elements are explained in detail in [Working with Documents and Reports](#).

The Report/Presentation Designer is a powerful tool that allows creating flexible and comprehensive layouts for reports and presentations. Some of the functionality of the Report/Presentation Designer may be familiar to those who used to work with report generators before (such as, for example, Crystal Reports). In a way a presentation is similar to a report (see [Working with Documents and Reports](#)) in that it allows providing a title and summary, break the data into groups, display headers

and footers for each group etc. Unlike reports, presentations may include hyperlinks that invoke different operations – start processes, run queries, view other presentations etc – see Hyperlinks.

Presentations can be displayed not only from the query results screen but also from operations invoked on a business object form (see Form Caption and Form Operations), from hyperlinks of some other presentation (see Hyperlinks) and from processes (using the VIEW action). In all these cases there is an instance of a business object, which owns the presentation that is being viewed. If the presentation is viewed from a business object form this instance is the instance of the object that the form displays; if it is viewed from a hyperlink this is the instance of the object that the hyperlink is associated with. If a presentation is viewed from a process this is the instance of the object in the Context. Also in all these cases only a single instance of a business object is displayed by a presentation unlike the situation when a presentation shows query results where in most cases multiple instances are displayed. When designing the layout of a presentation it is important to remember whether the presentation will be used to display a single or multiple instances of a business object. Some presentations should only be used to display query results (i.e. showing multiple instances) while others should only be used from forms, hyperlinks or processes (i.e. showing single instances).

Hyperlinks

Hyperlinks invoke operations from a presentation. They are defined using the Report/Presentation Designer as part of the presentation layout (see Setting Hyperlink Properties).

Hyperlinks can be optionally attached to text, tag and image design elements. When defining a hyperlink the configurator has to specify the type of operation that the hyperlink invokes if clicked on by the user in the Operation Mode. These operations can start a process, run a query, display a form or presentation of a business object or navigate to a particular URL. The full list of operation types is described in the Setting Hyperlink Properties section.

In the Operation Mode a hyperlink is most often associated with a particular instance of a business object. If a presentation where the hyperlink is defined shows one instance of a business object (see Business Object Presentation) this is the instance that the hyperlink is associated with. If the presentation shows multiple instances and the hyperlink is defined in the Details band of the presentation there will be as many hyperlinks as there are instances of the business object – each hyperlink will be associated with its own instance.

When an operation that a hyperlink invokes starts, the instance of a business object that the hyperlink is associated with becomes available as context for this operation. If the operation starts a process this instance may be used by rules of the process (process input); if the operation runs a query this instance may be used by the query for attributes resolved dynamically (see Configuring Queries); if the operation displays the form for editing this instance is the one that gets edited.