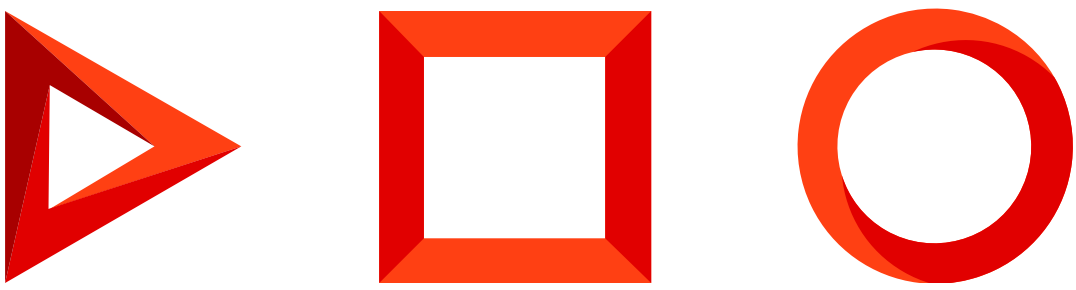
Creatio Academy

Develop your first application

Step 5. Create a custom web service

Version 7.17



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Step 5. Create a custom web service

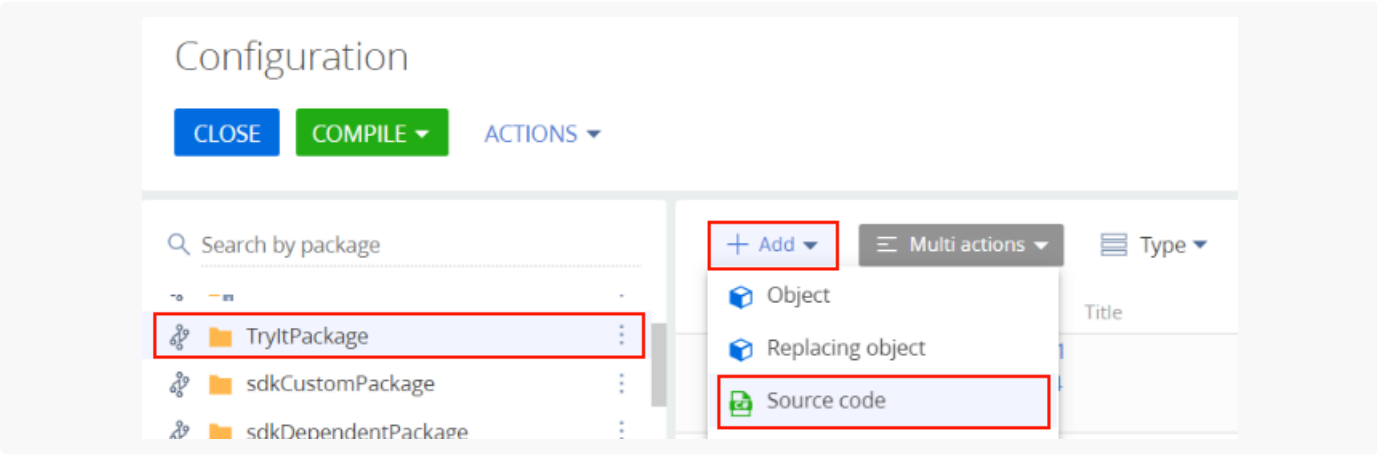
Beginner

On the previous step, we implemented population of the group class timetable.

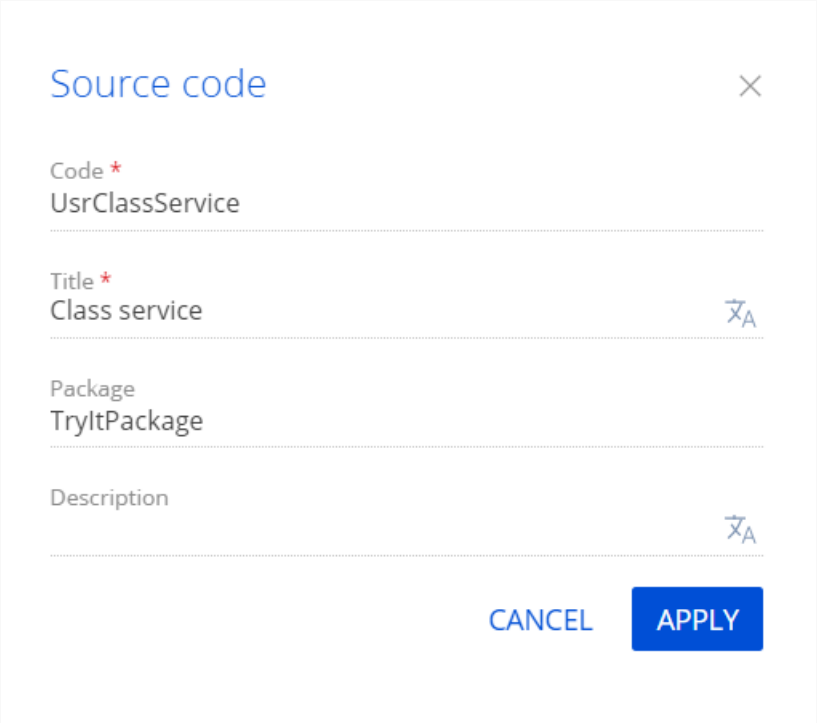
Now, implement a web service that provides information about the number of classes in the timetable. To call a web service, add the [*Web service*] button to the record page.

Create a custom web service

1. Go to the [*Configuration*] section.
2. Select the "TryItPackage" package from the package list.
3. Click [*Add*] on the workspace toolbar and select the [*Source code*] configuration element type.



4. **Fill out the property fields** as follows:
   - Set [*Code*] to "`UsrClassService`".
   - Set [*Title*] to "`Class service`".



5. Add the source code in the Schema Designer.

UsrClassService.cs

```
namespace Terrasoft.Configuration.UsrClassService
{
    using System;
    using System.ServiceModel;
    using System.ServiceModel.Web;
    using System.ServiceModel.Activation;
    using Terrasoft.Core;
    using Terrasoft.Core.DB;
    using Terrasoft.Common;
    using Terrasoft.Web.Common;
    using Terrasoft.Core.Entities;

    [ServiceContract]
    [AspNetCompatibilityRequirements(RequirementsMode = AspNetCompatibilityRequirementsMode.R
    public class UsrClassService: BaseService
    {

        [OperationContract]
        [WebInvoke(Method = "POST", RequestFormat = WebMessageFormat.Json, BodyStyle = WebMes
        ResponseFormat = WebMessageFormat.Json)]
        public int GetTrainingsQuantity(string code) {
            var classQuery = new Select(UserConnection)
                .Column("Id")
                .From("UsrClass")
```

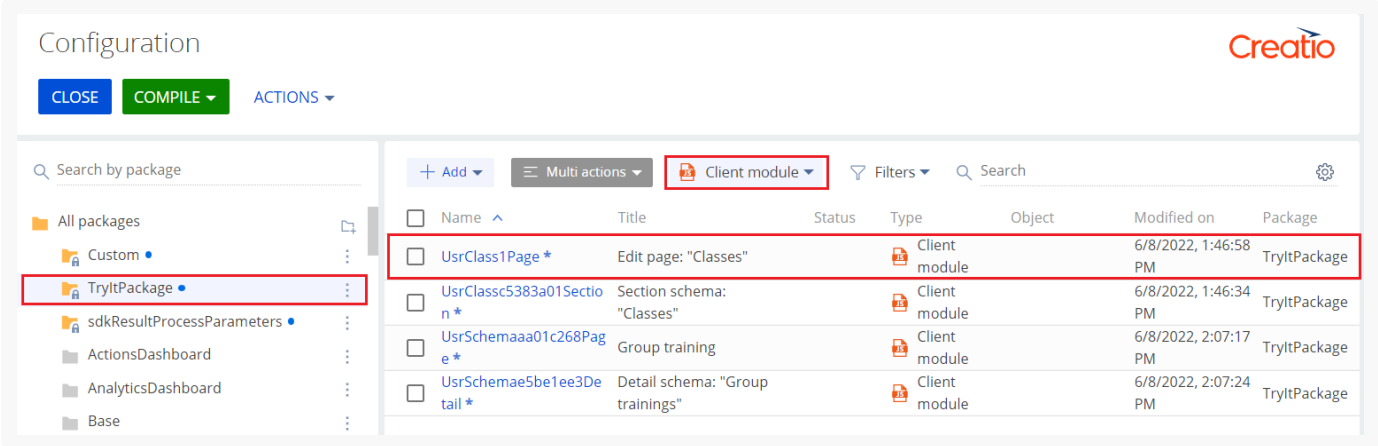
```
                .Where("UsrCode")
                    .IsEqual(Column.Parameter(code))
                as Select;
            Guid id = classQuery.ExecuteScalar<Guid>();
            if (id==Guid.Empty) {
                return -1;
            }
            var countQuery = new Select(UserConnection)
                .Column(Func.Count("Id")).As("Count")
                .From("UsrGroupTraining")
                .Where("UsrClassId")
                    .IsEqual(Column.Parameter(id))
                as Select;
            int result = countQuery.ExecuteScalar<int>();

            return result;
        }
    }
}
```

6. Click [*Publish*] to save the schema.

Modify the page source code

Add a class page button that calls the web service and displays the dialog box that contains the number of group classes in the timetable.

1. Go to the [*Configuration*] section.
2. Select the "TryItPackage" package from the package list.
3. The Wizards added schemas of various types to the package. Filter schemas by the [*Client module*] type.

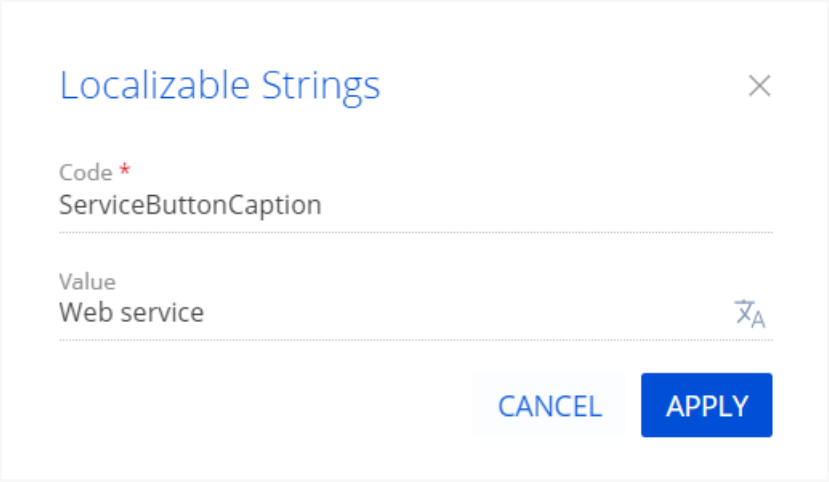


4. Double-click the `UsrClass1Page` schema to open it.
5. Add a new localizable string for the button name to the schema.

   Click the + button in the [*Localizable strings*] block of the properties panel and fill out the **localizable string**

properties:

- Set [*Code*] to "`ServiceButtonCaption`".
- Set [*Value*] to "`Web service`".



6. Modify the source code.

UsrClass1Page.js

```
define("UsrClass1Page", ["ServiceHelper", "ProcessModuleUtilities"], function(ServiceHelper,
    return {
        entitySchemaName: "UsrClass",
        /* No changes. */
        messages: {
            // ...
        },

        /* No changes. */
        attributes: {
            // ...
        },

        modules: /**SCHEMA_MODULES*/{}/**SCHEMA_MODULES*/,

        /* No changes. */
        details: /**SCHEMA_DETAILS*/{
                // ...
        }/**SCHEMA_DETAILS*/,

        businessRules: /**SCHEMA_BUSINESS_RULES*/{}/**SCHEMA_BUSINESS_RULES*/,

        /* Add the new method to the existing methods. */
        methods: {
```

```
            // ...

            /* The method that handles the button clicks. */
            onGetServiceInfoClick: function() {
                /* Retrieve the section code to pass as the incoming parameter of the service
                var code = this.get("UsrCode");
                var serviceData = {
                    code: code
                };
                /* Call the service method. */
                ServiceHelper.callService("UsrClassService", "GetTrainingsQuantity",
                    function(response) {
                        var result = response.GetTrainingsQuantityResult;
                        /* Display the service method output in the dialog box. */
                        this.showInformationDialog(result);
                    }, serviceData, this);
            }
        },
        dataModels: /**SCHEMA_DATA_MODELS*/{}/**SCHEMA_DATA_MODELS*/,

        /* Display the button on the record page. */
        diff: /**SCHEMA_DIFF*/[

            // ...
            /* Add the button element to the record page. */
            {
                "operation": "insert",
                /* The parent element name. */
                "parentName": "ActionButtonsContainer",
                "propertyName": "items",
                /* The element name. */
                "name": "GetServiceInfoButton",
                "values": {
                    /* Set the element type to button. */
                    itemType: Terrasoft.ViewItemType.BUTTON,
                    /* Retrieve the element caption from the localizable string. */
                    caption: {bindTo: "Resources.Strings.ServiceButtonCaption"},
                    /* The method that handles the button clicks. */
                    click: {bindTo: "onGetServiceInfoClick"},
                    enabled: true,
                    /* The button position on the page. */
                    "layout": {"column": 1, "row": 6, "colSpan": 2, "rowSpan": 1}
                }
            },

        ]/**SCHEMA_DIFF*/
    };
});
```

7. Click [*Save*] to save the schema.

As a result, we implemented the web service that returns the number of group classes.