

Develop your first application

Step 5. Create a custom web service

Version 7.18



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Step 5. Create a custom web service

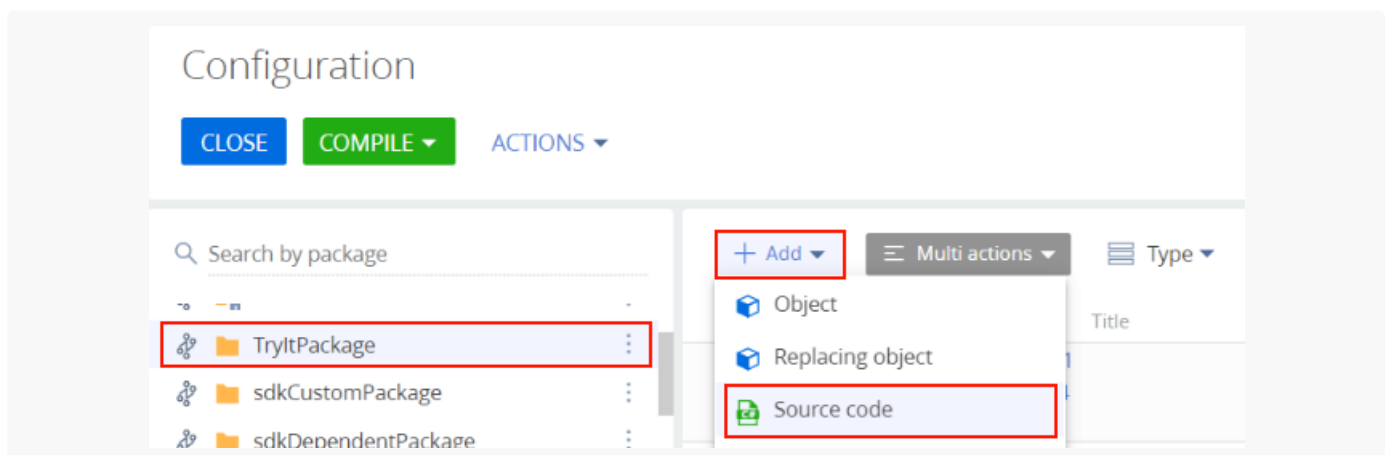
 Beginner

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".

Source code ×

Code *
 UsrClassService

Title *
 Class service ↗A

Package
 TryItPackage

Description ↗A

CANCEL
APPLY

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.Required)]
    public class UsrClassService: BaseService
    {

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

```

        .Where("UserCode")
            .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.

The screenshot shows the 'Configuration' window in Creatio. On the left, a tree view shows the package structure with 'TryItPackage' selected. The main area displays a table of schemas filtered by 'Client module'.

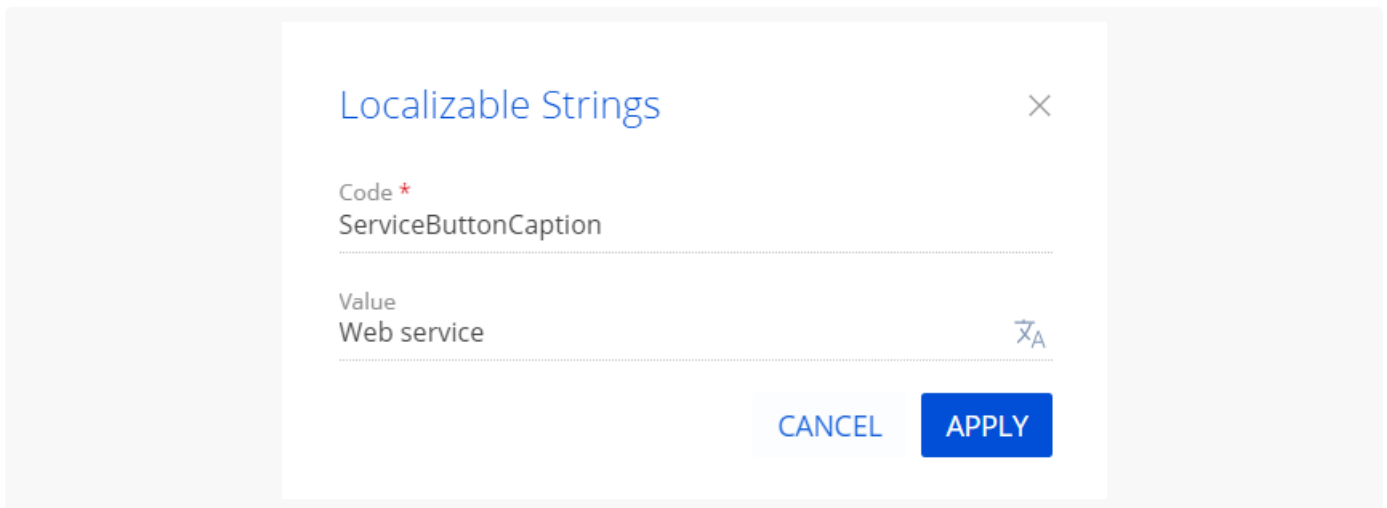
Name	Title	Status	Type	Object	Modified on	Package
UsrClass1Page *	Edit page: "Classes"		Client module		6/8/2022, 1:46:58 PM	TryItPackage
UsrClass5383a01Section *	Section schema: "Classes"		Client module		6/8/2022, 1:46:34 PM	TryItPackage
UsrSchemaaa01c268Page *	Group training		Client module		6/8/2022, 2:07:17 PM	TryItPackage
UsrSchemae5be1ee3Detail *	Detail schema: "Group trainings"		Client module		6/8/2022, 2:07:24 PM	TryItPackage

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}
        }
    },

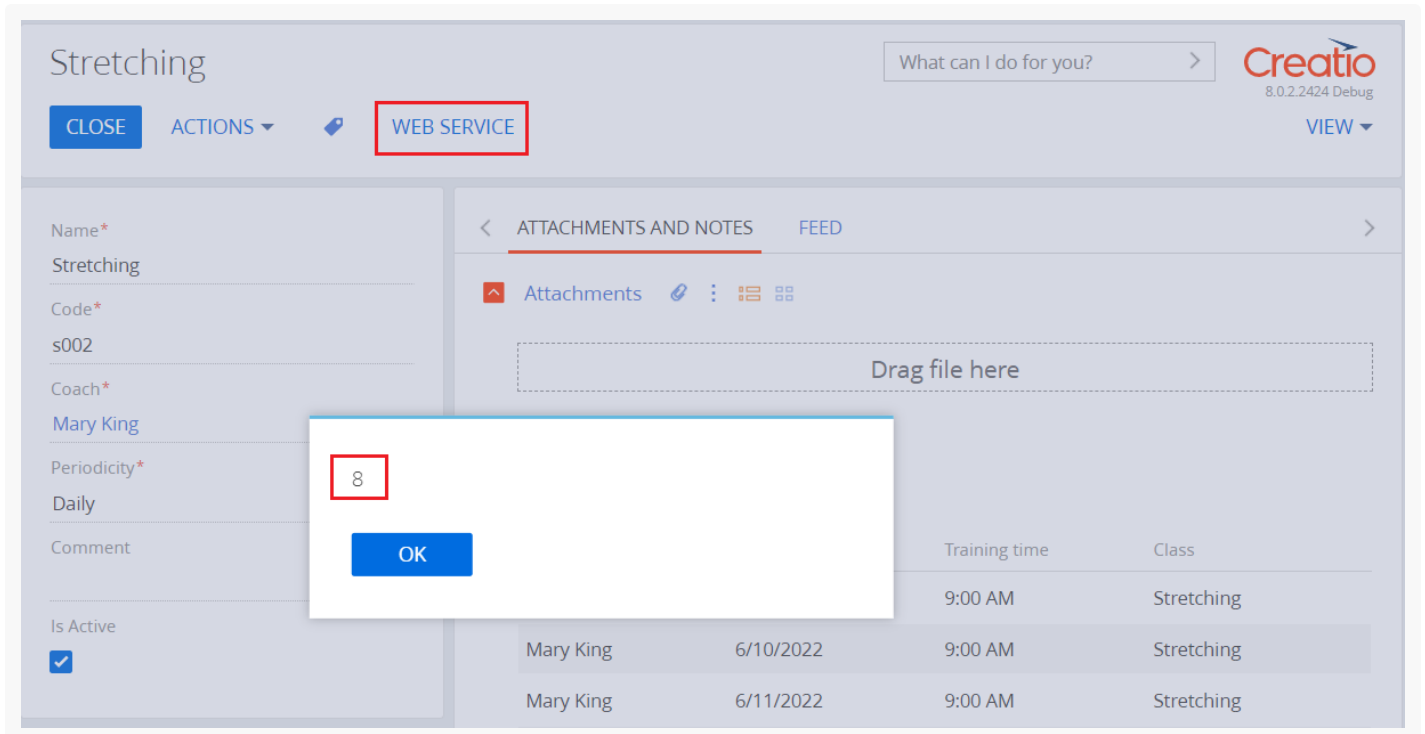
/**SCHEMA_DIFF*/

];
});

```


7. Click [Save] to save the schema.

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



The screenshot displays the Creatio user interface for the 'Stretching' entity. The top navigation bar includes a search box, the 'Creatio' logo (version 8.0.2.2424 Debug), and a 'VIEW' dropdown. The main header shows 'Stretching' with 'CLOSE', 'ACTIONS', and 'WEB SERVICE' buttons. The 'WEB SERVICE' button is highlighted with a red box. The left sidebar contains fields for Name, Code, Coach, Periodicity, Comment, and Is Active. The main content area is titled 'ATTACHMENTS AND NOTES' and features a 'Drag file here' area. A modal dialog box is open, showing the number '8' in a red box and an 'OK' button. Below the dialog, a table lists training classes.

	Training time	Class
	9:00 AM	Stretching
Mary King	6/10/2022	9:00 AM
Mary King	6/11/2022	9:00 AM
	9:00 AM	Stretching