

Application Software Documentation

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Architectural design of Application is using Web API as backend and API based Desktop Application as Front End. Programming language used is C#, and the saved and to be saved data is using in memory data class collection retained in Web API. Application is intended to record multi purpose data which can be saved in JSON String or XML String format. The tittle of this JSON String / XML String data is represented by Item Name Field, while JSON String / XML String data it self is saved in Item Content field. Item Type field is the info which shows whether that saved data is in JSON String or in XML String.

The first time application showing is as appeared as below.

Functionalities of above application are,

1. Get Data
Get data button is used to get all data in displayed table
2. Clear Data
Clear data button is used to clear all data in displayed table
3. Retrieve
Retrieve button is used to get single Item Name
4. Get Type
Get Type button to get Item Type, type of single item whether JSON Text or XML Text
5. Register
Register button is used to save record
6. Change
Change button is used to change the record
7. Deregister
Deregister button is purposed for deleting record

The following are some captures and brief explanation of above functionalites,

1. Get Data
When Get Data button is clicked, data will be displayed on available table. For testing purposes some data displayed below are data which are harcoded as sample.

Item Name

Item Content

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

GetType

	itemName	itemContent	itemType
▶	Branch	{ "Branch": [{ "branchid": "1", "branchname": "salatiga" }, { "branchid": "2", "branchname": "semarang" }] }	1
	Employee	{ "Employee": [{ "employeeid": "1", "employeename": "andi" }, { "employeeid": "2", "employeename": "budi" }] }	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Suppli...	2
	Product	{ "Product": [{ "productid": "1", "productname": "conveyorbot" }, { "productid": "2", "productname": "pipetbot" }] }	1
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customename>Kalbe</customename></Customer...	2
*			

2. Clear Data
- When Clear Data button is clicked, data displayed on available table will be cleared. Item Name, Item Content and Item Type fileds will also be cleared.

Item Name

Item Content

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

GetType

3. Retrieve
- When Retrieve button is clicked, single record will appear if the Item Name Text Box above Retrieve button is matched with Item Name available on data set. Pop up will also appear telling that the matched Item Name exist.

Item Name

Item Content

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

branch

Retrieve

GetType

itemName "Branch" exist!

OK

	itemName	itemContent	itemType
▶	Branch	{"Branch":[{"branchid":"1","branchname":"salatiga"},{"branchid":"2","branchname":"semarang"}]}	1
*			

If not matched, then popup info will tell vice versa.

Item Name

Item Content

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

bank

Retrieve

GetType

itemName "bank" does not exist!

OK

Frm_JsonXmlDesktopApi

Item Name

Item Content

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

itemName "" does not exist!

OK

4. Get Type
- When Get Type button is clicked, single record will appear if the Item Name Text Box above Retrieve button is matched with Item Name available on data set. Pop up will also appear telling that the matched Item Type for chosen Item Name is JSON string or XML string based on existed record.

Frm_JsonXmlDesktopApi

Item Name

Item Content

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

Customer

Retrieve

Get Type

itemType for itemName "Customer" = XML string

OK

	itemName	itemContent	itemType
▶	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customename>Kalbe</customename></Customer>...	2
*			

If not matched, then popup info will tell vice versa.

Frm_JsonXmlDesktopApi

Item Name

Item Content

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

Investor

Retrieve

Get Type

itemName "Investor" does not exist!

OK

Frm_JsonXmlDesktopApi

Item Name

Item Content

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

itemName "" does not exist!

OK

5. Register
- When Register button is clicked, data which have been typed on Item Name, Item Content and Item Type fields will be saved.

Frm_JsonXmlDesktopApi

Item Name

Employee2

Item Content

{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

register is success!

OK

	itemName	itemContent	item Type
	Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "semarang"}]}	1
▶	Employee	{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Supplier><supplierid>2</supplierid><suppliemame>Siemens</suppliemame></Supplier></ArrayOfSupplier>	2
	Product	{ "Product": [{"productid": "1", "productname": "conveyorbot"}, {"productid": "2", "productname": "pipetbot"}]}	1
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer><Customer><customerid>2</customerid><customemame>Kalbe</customemame></Customer></ArrayOfCustomers>	2
*			

Frm_JsonXmlDesktopApi

Item Name

Employee2

Item Content

{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	item Type
▶	Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "semarang"}]}	1
	Employee	{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Supplier><supplierid>2</supplierid><suppliemame>Siemens</suppliemame></Supplier></ArrayOfSupplier>	2
	Product	{ "Product": [{"productid": "1", "productname": "conveyorbot"}, {"productid": "2", "productname": "pipetbot"}]}	1
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer><Customer><customerid>2</customerid><customemame>Kalbe</customemame></Customer></ArrayOfCustomers>	2
	Employee2	{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}	1
*			

Validation is made to filter unsuitable Item Content field and its JSON/XML content type represented by Item Type field.

Frm_JsonXmlDesktopApi

Item Name

Employee3

Item Content

{{"Employee":{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}}}XXXXX

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	itemType
▶	Branch	{{"Branch":{"branchid":"1","branchname":"salatiga"},{"branchid":"2","branchname":"budi"}}}	
	Employee	{{"Employee":{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}}}	
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemamel>Siemens</suppliemamel></Supplier></ArrayOfSupplier>	
	Product	{{"Product":{"productid":"1","productname":"conveyorbot"},{"productid":"2","productname":"pipetbot"}}}	1
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemamel>Kalbe</customemamel></Customer></ArrayOfCustomers>	2
	Employee2	{{"Employee":{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}}}	1
*			

Item Type is not a valid JSONString

OK

Frm_JsonXmlDesktopApi

Item Name

Employee3

Item Content

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	itemType
▶	Branch	{{"Branch":{"branchid":"1","branchname":"salatiga"},{"branchid":"2","branchname":"budi"}}}	
	Employee	{{"Employee":{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}}}	
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemamel>Siemens</suppliemamel></Supplier></ArrayOfSupplier>	
	Product	{{"Product":{"productid":"1","productname":"conveyorbot"},{"productid":"2","productname":"pipetbot"}}}	1
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemamel>Kalbe</customemamel></Customer></ArrayOfCustomers>	2
	Employee2	{{"Employee":{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}}}	1
*			

Item Type is not a valid JSONString

OK

Frm_JsonXmlDesktopApi

Item Name

Employee3

Item Content

{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}]}

Item Type

2. XML string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

GetType

Item Type is not a valid XMLString!

OK

	itemName	itemContent	itemType
▶	Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "salatiga"}]}	1
	Employee	{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}]}	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Supplier><supplierid>2</supplierid><suppliemame>Siemens</suppliemame></Supplier></ArrayOfSupplier>	2
	Product	{ "Product": [{"productid": "1", "productname": "conveyorbot"}, {"productid": "2", "productname": "pipetbot"}]}	1
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer><Customer><customerid>2</customerid><customemame>Kalbe</customemame></Customer></ArrayOfCustomers>	2
	Employee2	{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}]}	1
*			

Validation is also made if Item Name or Item Type text box is empty when clicking Register button.

Frm_JsonXmlDesktopApi

Item Name

Item Content

{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}]}

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

GetType

don't let item name empty!

OK

	itemName	itemContent	itemType
	Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "salatiga"}]}	1
	Employee	{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}]}	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Supplier><supplierid>2</supplierid><suppliemame>Siemens</suppliemame></Supplier></ArrayOfSupplier>	2
	Product	{ "Product": [{"productid": "1", "productname": "conveyorbot"}, {"productid": "2", "productname": "pipetbot"}]}	1
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer><Customer><customerid>2</customerid><customemame>Kalbe</customemame></Customer></ArrayOfCustomers>	2
▶	Employee2	{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}]}	1
*			

Frm_JsonXmlDesktopApi

Item Name

Employee3

Item Content

{ "Employee": [{"employeeid": "1", "employeeenamel": "andi"}, {"employeeid": "2", "employeeenamel": "budi"}] }

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

item Name

item Content

item Type

Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "semarang"}] }	1
Employee	{ "Employee": [{"employeeid": "1", "employeeenamel": "andi"}, {"employeeid": "2", "employeeenamel": "budi"}] }	1
Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemamel>Siemens</suppliemamel></Supplier><Supplier><supplierid>2</supplierid><suppliemamel>Kalbe</suppliemamel></Supplier></ArrayOfSupplier>	2
Product	{ "Product": [{"productid": "1", "productname": "conveyorbot"}, {"productid": "2", "productname": "pipetbot"}] }	1
Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemamel>Kalbe</customemamel></Customer><Customer><customerid>2</customerid><customemamel>Budi</customemamel></Customer></ArrayOfCustomers>	2
Employee2	{ "Employee": [{"employeeid": "1", "employeeenamel": "andi"}, {"employeeid": "2", "employeeenamel": "budi"}] }	1
*		

don't let item type empty!

OK

6. Change

When Change button is clicked, data available on Item Name, Item Content and Item Type fields will be saved based on its Item Name on record.

Frm_JsonXmlDesktopApi

Item Name

Product

Item Content

{ "Product": [{"productid": "1", "productname": "conveyorbot"}, {"productid": "2", "productname": "pipetbot"}] }

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

item Name

item Content

item Type

Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "semarang"}] }	1
Employee	{ "Employee": [{"employeeid": "1", "employeeenamel": "andi"}, {"employeeid": "2", "employeeenamel": "budi"}] }	1
Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemamel>Siemens</suppliemamel></Supplier><Supplier><supplierid>2</supplierid><suppliemamel>Kalbe</suppliemamel></Supplier></ArrayOfSupplier>	2
Product	{ "Product": [{"productid": "1", "productname": "conveyorbot"}, {"productid": "2", "productname": "pipetbot"}] }	1
Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemamel>Kalbe</customemamel></Customer><Customer><customerid>2</customerid><customemamel>Budi</customemamel></Customer></ArrayOfCustomers>	2
Employee2	{ "Employee": [{"employeeid": "1", "employeeenamel": "andi"}, {"employeeid": "2", "employeeenamel": "budi"}] }	1
*		

Frm_JsonXmlDesktopApi

Item Name

Product

Item Content

<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>

Item Type

2. XML string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

change success!

OK

	itemName	itemContent	itemType
	Branch	{ "Branch": [{ "branchid": "1", "branchname": "salatiga" }, { "branchid": "2", "branchname": "semarang" }] }	1
	Employee	{ "Employee": [{ "employeeid": "1", "employeeenane": "andi" }, { "employeeid": "2", "employeeenane": "budi" }] }	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Suppli...	2
	Product	{ "Product": [{ "productid": "1", "productname": "conveyorbot" }, { "productid": "2", "productname": "pipetbot" }] }	1
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer>...	2
	Employee2	{ "Employee": [{ "employeeid": "1", "employeeenane": "andi" }, { "employeeid": "2", "employeeenane": "budi" }] }	1
*			

Frm_JsonXmlDesktopApi

Item Name

Product

Item Content

<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>

Item Type

2. XML string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	itemType
	Branch	{ "Branch": [{ "branchid": "1", "branchname": "salatiga" }, { "branchid": "2", "branchname": "semarang" }] }	1
	Employee	{ "Employee": [{ "employeeid": "1", "employeeenane": "andi" }, { "employeeid": "2", "employeeenane": "budi" }] }	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Suppli...	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer>...	2
	Employee2	{ "Employee": [{ "employeeid": "1", "employeeenane": "andi" }, { "employeeid": "2", "employeeenane": "budi" }] }	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Pr...	2
*			

Validation is made to filter unsuitable Item Content field and its JSON/XML content type represented by Item Type field.

Frm_JsonXmlDesktopApi

Item Name

Product

Item Content

<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>XXXXX

Item Type

2. XML string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	itemType
	Branch	{"Branch":{"branchid":"1","branchname":"salatiga"},"branchid":"1"}	1
	Employee	{"Employee":{"employeeid":"1","employeeenamel":"andi"},"employeeid":"1"}	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemamel>siemens</suppliemamel></Supplier></ArrayOfSupplier>	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemamel>Kalbe</customemamel></Customer></ArrayOfCustomers>	2
	Employee2	{"Employee":{"employeeid":"1","employeeenamel":"andi"},"employeeid":"2","employeeenamel":"budi"}}	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>	2
*			

Item Type is not a valid XMLString!

OK

Frm_JsonXmlDesktopApi

Item Name

Product

Item Content

Item Type

2. XML string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	itemType
	Branch	{"Branch":{"branchid":"1","branchname":"salatiga"},"branchid":"1"}	1
	Employee	{"Employee":{"employeeid":"1","employeeenamel":"andi"},"employeeid":"1"}	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemamel>siemens</suppliemamel></Supplier></ArrayOfSupplier>	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemamel>Kalbe</customemamel></Customer></ArrayOfCustomers>	2
	Employee2	{"Employee":{"employeeid":"1","employeeenamel":"andi"},"employeeid":"2","employeeenamel":"budi"}}	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>	2
*			

Item Type is not a valid XMLString!

OK

Frm_JsonXmlDesktopApi

Item Name

Product

Item Content

<Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product>

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

Item Type is not a valid JSONString

OK

	itemName	itemContent	itemType
	Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "budi"}] }	1
	Employee	{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}] }	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Supplier><supplierid>2</supplierid><suppliemame>Siemens</suppliemame></Supplier></ArrayOfSupplier>	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer></ArrayOfCustomers>	2
	Employee2	{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}] }	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>	2
*			

Validation is also made if Item Name or Item Type text box is empty when clicking Change button.

Frm_JsonXmlDesktopApi

Item Name

Item Content

<Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product>

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

don't let item name empty!

OK

	itemName	itemContent	itemType
	Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "budi"}] }	1
	Employee	{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}] }	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Supplier><supplierid>2</supplierid><suppliemame>Siemens</suppliemame></Supplier></ArrayOfSupplier>	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer></ArrayOfCustomers>	2
	Employee2	{ "Employee": [{"employeeid": "1", "employeeenane": "andi"}, {"employeeid": "2", "employeeenane": "budi"}] }	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>	2
*			

Item Name

Product

Item Content

<Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product>

Item Type

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

don't let item type empty!

OK

	itemName	itemContent	itemType
	Branch	{ "Branch": [{ "branchid": "1", "branchname": "salatiga" }, { "branchid": "2", "branchname": "budi" }] }	1
	Employee	{ "Employee": [{ "employeeid": "1", "employeeenane": "andi", "employeeid": "2", "employeeenane": "budi" }] }	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier></ArrayOfSupplier>	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer></ArrayOfCustomers>	2
	Employee2	{ "Employee": [{ "employeeid": "1", "employeeenane": "andi", "employeeid": "2", "employeeenane": "budi" }] }	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>	2
*			

Another validation is Item Name not exist in data set will never be saved when clicking Change button.

Item Name

Product2

Item Content

<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>

Item Type

2. XML string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

item name "Product2" does not exist, change is not success!

OK

	itemName	itemContent	itemType
	Branch	{ "Branch": [{ "branchid": "1", "branchname": "salatiga" }, { "branchid": "2", "branchname": "budi" }] }	1
	Employee	{ "Employee": [{ "employeeid": "1", "employeeenane": "andi", "employeeid": "2", "employeeenane": "budi" }] }	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier></ArrayOfSupplier>	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer></ArrayOfCustomers>	2
	Employee2	{ "Employee": [{ "employeeid": "1", "employeeenane": "andi", "employeeid": "2", "employeeenane": "budi" }] }	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>pipetbot</productname></Product></ArrayOfProduct>	2
*			

7. Deregister
- When Deregister button is clicked, chosen single data available will be deleted from record.

Frm_JsonXmlDesktopApi

Item Name

Employee

Item Content

{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

deregister is success!

OK

	itemName	itemContent	itemType
	Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "semarang"}]}	1
▶	Employee	{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Suppli...	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer>...	2
	Employee2	{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Pr...	2
*			

Frm_JsonXmlDesktopApi

Item Name

Employee

Item Content

{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}

Item Type

1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	itemType
▶	Branch	{ "Branch": [{"branchid": "1", "branchname": "salatiga"}, {"branchid": "2", "branchname": "semarang"}]}	1
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliemame>Siemens</suppliemame></Supplier><Suppli...	2
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customemame>Kalbe</customemame></Customer>...	2
	Employee2	{ "Employee": [{"employeeid": "1", "employee name": "andi"}, {"employeeid": "2", "employee name": "budi"}]}	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Pr...	2
*			

Validation is made when Item Name to be deleted does not exist in dataset.

Frm_JsonXmlDesktopApi

Item NameEmployee3

Item Content{"Employee":[{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}]}

Item Type1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	
▶	Branch	{"Branch":[{"branchid":"1","branchname":"salatiga"}]}	
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliername>salatiga</suppliername></Supplier></ArrayOfSupplier>	
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customername>raide</customername></Customer></ArrayOfCustomers>	2
	Employee2	{"Employee":[{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}]}	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>conveyorbot</productname></Product></ArrayOfProduct>	2
*			

item name "Employee3" does not exist, deregister is not success!

OK

Frm_JsonXmlDesktopApi

Item Name

Item Content{"Employee":[{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}]}

Item Type1. JSON string

Register

Change

Deregister

Get Data

Clear Data

Item Name

Retrieve

Get Type

	itemName	itemContent	Type
▶	Branch	{"Branch":[{"branchid":"1","branchname":"salatiga"}]}	
	Supplier	<ArrayOfSupplier><Supplier><supplierid>1</supplierid><suppliername>salatiga</suppliername></Supplier></ArrayOfSupplier>	
	Customer	<ArrayOfCustomers><Customer><customerid>1</customerid><customername>raide</customername></Customer></ArrayOfCustomers>	2
	Employee2	{"Employee":[{"employeeid":"1","employeeenamel:"andi"},{"employeeid":"2","employeeenamel:"budi"}]}	1
	Product	<ArrayOfProduct><Product><productid>1</productid><productname>conveyorbot</productname></Product><Product><productid>2</productid><productname>conveyorbot</productname></Product></ArrayOfProduct>	2
*			

item name "" does not exist, deregister is not success!

OK