

AtomicDB Add-On in Wolfram Language  
AtomicDB API Primitive Operations Package  
DEMO VERSION  
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Package for Microsoft Windows (64-bit), x86-64, Windows  
Mathematica ver.10.0 for Microsoft Windows (64-bit) (June 29, 2014)  
.NET Framework ver. : 4.0.30319.34209

**Notice : This version of AtomicDB AddOn is for demonstration purposes only,  
not for commercial or other business use !**

# AtomicDB Add - On in *Mathematica*

## AtomicDB API Primitive Operations Package Test (Demo Version)

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This output has been generated automagically. ☺

In this demo we build first a simple relational data model using the Wolfram List structure. Our relational model example includes two main tables STOCK and ORDER that are joined with a third junction table STOCK-ORDER. Then we convert this to AtomicDB data model by adding a new Model, then Concepts (columns) and Records (rows).

## ■ Relational Model

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### Relations

#### STOCK Table

StockID	StockNameEN	StockPrice	StockNameGR
991	Pinto Beans	11.1	Φασόλια Πίντο
992	Kidney Beans	9.85	Φασόλια Κόκκινα
993	White Beans	13.45	Φασόλια Άσπρα
994	Wax Beans	18.72	Φασόλια Καναρίνια

#### ORDER Table

OrderID	OrderKey
441	1111-BZ
442	1117-CM
443	1118-SA
444	1119-TT

## STOCK - ORDER Table

SOID	SOrderID	SStockID	SOQuantity
224	441	991	1
225	442	992	3
226	443	994	2
227	444	993	1
228	441	993	3

## ■ AtomicDB Model

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### Login To Server

#### Existing Models

```
{}
```

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### Concept Map System

#### Add A New Model

```
{0, 3, 13, 256} → Beans Stock-Order Model Example
```

#### Get All Models

```
« NETObject[System.Collections.Generic.List`1[System.Collections.Generic.KeyValuePair]] »  
  
{« NETObject[System.Collections.Generic.List`1[System.Collections.Generic.KeyValuePair]] »}  
  
« NETObject[System.Collections.Generic.KeyValuePair] »
```

#### Print Key - Value Pair of the first model

```
{0, 3, 13, 256} → Beans Stock-Order Model Example
```

#### Add Concepts to the Model

##### Add STOCK Group Concepts

```
{2, 1025, 256, 1} → StockNEXUS  
{2, 1025, 256, 2} → StockID  
{2, 1025, 256, 3} → StockNameEN  
{2, 1025, 256, 4} → StockPrice  
{2, 1025, 256, 5} → StockNameGR
```

## Add ORDER Group Concepts

{2, 1025, 256, 6} → OrderNEXUS

{2, 1025, 256, 7} → OrderID

{2, 1025, 256, 8} → OrderKey

## Add STOCK - ORDER Group Concepts

{2, 1025, 256, 9} → SONEXUS

{2, 1025, 256, 10} → SOID

{2, 1025, 256, 7} → OrderID

{2, 1025, 256, 2} → StockID

{2, 1025, 256, 11} → SOQuantity

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# Data Holder System

## Add Collections

### Add STOCK Group Collections

{0, 3, 15, 257} → StockNEXUS

{0, 3, 15, 258} → StockID

{0, 3, 15, 259} → StockNameEN

{0, 3, 15, 260} → StockPrice

{0, 3, 15, 261} → StockNameGR

### Add ORDER Group Collections

{0, 3, 15, 263} → OrderNEXUS

{0, 3, 15, 264} → OrderID

{0, 3, 15, 265} → OrderKey

### Add STOCK - ORDER Group Collections

{0, 3, 15, 266} → SONEXUS

{0, 3, 15, 267} → SOID

{0, 3, 15, 264} → OrderID

{0, 3, 15, 258} → StockID

{0, 3, 15, 268} → SOQuantity

## Add Records

### Add STOCK Group Records

{2, 7, 257, 1} → 1

{2, 7, 257, 2} → 2

{2, 7, 257, 3} → 3

{2, 7, 257, 4} → 4

## Add ORDER Group Records

{2, 8, 263, 1} → 1  
{2, 8, 263, 2} → 2  
{2, 8, 263, 3} → 3  
{2, 8, 263, 4} → 4

## Add STOCK - ORDER Group Records

{2, 8, 263, 1} → 1  
{2, 8, 263, 2} → 2  
{2, 8, 263, 3} → 3  
{2, 8, 263, 4} → 4