**Danial Dadmohammadi**

**[D365 finance and operations]  ARADA**

**Technical design document**

**for**

**IT-353 |** **D365 Retail APIs development for Manbat & Artal**

**Revision and Signoff Sheet**

**Change Record**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Author | Version | Change reference |
| 8/11/2023 | Danial Dadmohammadi | 1.0.0 | Task 353: POS-T121: D365 Retail APIs development for Manbat & Artal |

**Reviewers**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Version reviewed | Position | Date |
| Nagendra Chitturi | 1.0.0 | Solution Architect |  |

**Approvers**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Version reviewed | Position | Date |
| Awad | 1.0.0 | Senior Manager – Enterprise solutions |  |

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1. Overview

## Objective

## Creating the required entities for online retail stores for all levels of one transaction based on the header, sales and payments. Some changes for another related entities like dimension Arabic name in both entity level and UI are done.

## References

|  |  |  |  |
| --- | --- | --- | --- |
| ZOHO ID | Manage Engine ID | Description | Owner |
| POS-T121 | -- | D365 Retail APIs development for Manbat & Artal | Danial, Nagendra |

## Purpose and Overview

Creating an online retail store using ERP retail entities and calling them from a third party system.

## Requirement Overview

*For Artal and Manbat online store, we should be able to create an order and select the products and category to cart like a normal retail store. The difference is that calling the entities is done from out of the ERP space. Moreover, covering the Arabic label for all products, dimensions and categories is done.*

*Inventory level checking is another item that is done in this project.*

## Solution Overview

* All of the entities which are related to doing a successful order in the POS, should be considered. They are related to the products, sales transactions, payments, categories, dimension and so on.
* Inventory level should be balanced with each online store transactions and each online store could be offered the correct inventory level.
* All the entities which have created, should consider the Arabic labels as well.

Following are the objects that are involved in the development process.

Soloution name: ARD365RetaiAPIsEntityforManbatArtal

Project name: ARD365RetaiAPIsEntityforManbatArtal

**Classes:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| AREcoresconfigpayload\_Extension | Postload method for adding the company for the AREcoresConfigEntity entity |
| AREcoresproductdetailextendeForm\_Extension | Override the init() method of the EcoResProductDetailsExtended form |
| AREcoResProductDimensionsDatasource | Event handler for dimension Arabic name updating |
| AREcoresRetailProductEntityPostload\_Extension | Postload method for adding the company and NoVATsales amount for the EcoResRetailProductEntity entity |
| ARReatilAssortProductsEntity\_Extension | Postload method for adding the dimension name to the ARRetailAssortmentProductsEntity entity |

**Form Extensions:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| **EcoResCategory.ISLDEV** | Adding the Arabic name |
| **EcoResProductDetailsExtended.ISLDEV** | Adding the brand name, Arabic name and sales uom qty |
| **EcoResProductMasterDimension.ISLDEV** | Adding Arabic name for dimensions |
| **EcoResProductVariants.ISLDEV** | Adding the material name and its Arabic name and variant name |

**Tables:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| ARAllCategoryStagingTable | Adding fields for category entity in the staging table |
| AREcoresConfigStaging | Adding fields for configuration entity in the staging table |
| ARRetailAssortmentProductsStaging | Adding fields for assortment entity in the staging table |
| EcoResCategory.ISLDEV | Adding fields for category table |
| EcoResColor.ISLDEV | Adding fields for color table |
| EcoResConfiguration.ISLDEV | Adding fields for config table |
| EcoResDistinctProductVariant.ISLDEV | Adding fields for variant table |
| EcoResProductTranslation.ISLDEV | Adding fields for product name table |
| EcoResSize.ISLDEV | Adding fields for size table |
| EcoResStyle.ISLDEV | Adding fields for style table |

**Data Entities:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| ARAllCategoryEntity | Category entity |
| AREcoresConfigEntity | Config entity |
| ARRetailAssortmentProductsEntity | Assortment entity for artal |
| EcoResRetailProductEntity.ISLDEV | Retail products for manbat |

### Security design

## Security Roles

|  |  |  |
| --- | --- | --- |
| **Name** | **Duties** | **Addl Remarks** |
| -- | -- | -- |

## Duties

|  |  |  |
| --- | --- | --- |
| **Name** | **Privileges** | **Addl Remarks** |
| -- | -- | -- |

## Privileges

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Entry Points** | **DATA entity permission** | **Access Level** | **Addl Remarks** |
| ARAllCategoryEntityMaintain | **--** | ARAllCategoryEntity | **delete** | **--** |
| ARAllCategoryEntityView |  | ARAllCategoryEntity | **read** |  |
| AREcoresConfigEntityMaintain |  | AREcoresConfigEntity | **delete** |  |
| AREcoresConfigEntityView |  | AREcoresConfigEntity | **read** |  |
| ARRetailAssortmentProductsEntityMaintain |  | ARRetailAssortmentProductsEntity | **delete** |  |
| ARRetailAssortmentProductsEntityView |  | ARRetailAssortmentProductsEntity | **read** |  |

## Process Cycles

|  |  |  |
| --- | --- | --- |
| **Name** | **Duties** | **Addl Remarks** |
| -- | -- | -- |

Project name: ARD365RetailAPIStocksAvailabilityEntity

**Classes:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| ARInventWarehouseOnhandEntityPayload\_Extension | Postload method for adding the retailvariantid and onhand value |

**Tables:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| ARInventWarehouseOnHandV2Staging | Adding fields for onhand entity in the staging table |
| ARPurchProductApprovedVendorStaging | Adding fields for approved vendor entity in the staging table |
| ARRetailTransactionPaymentLineStaging | Adding fields for payment entity in the staging table |
| InventWarehouseOnHandV2Staging.ISLDEV | Adding fields for onhand entity in the staging table |
| RetailTransactionStaging.ISLDEV | Adding fields for retail sales entity in the staging table |
| VendTable.ISLDEV | Adding fields for vendor table |

**Views:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| InventOnHandByWarehouse.ISLDEV | Adding dataareaid |
| InventSumByWarehouse.ISLDEV | Adding dataareaid |
| InventWarehouseOnHandAggregatedView.ISLDEV | Adding dataareaid |
| InventWarehouseOnHandView.ISLDEV | Adding dataareaid |

**Data Entities:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| ARRetailTransactionAuditableEntity | Header of the online retail sales |
| ARInventWarehouseOnHandV2Entity | Dimensions with onhand for the retail sales |
| ARPurchProductApprovedVendorEntity | Approved vendor info |
| InventWarehouseOnHandV2Entity.ISLDEV | Onhand for retail sales |
| ARRetailTransactionPaymentLineEntity | Payment for online retail store |

### Security design

## Security Roles

|  |  |  |
| --- | --- | --- |
| **Name** | **Duties** | **Addl Remarks** |
| -- | -- | -- |

## Duties

|  |  |  |
| --- | --- | --- |
| **Name** | **Privileges** | **Addl Remarks** |
| -- | -- | -- |

## Privileges

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Entry Points** | **DATA entity permission** | **Access Level** | **Addl Remarks** |
| ARInventWarehouseOnHandEntityView |  | ARInventWarehouseOnHandV2Entity | **read** | **--** |
| ARPurchProductApprovedVendorEntityMaintain |  | ARPurchProductApprovedVendorEntity | **delete** |  |
| ARPurchProductApprovedVendorEntityView |  | ARPurchProductApprovedVendorEntity | **read** |  |
| ARRetailTransactionAuditableEntityMaintain |  | ARRetailTransactionAuditableEntity | **delete** |  |
| ARRetailTransactionAuditableEntityView |  | ARRetailTransactionAuditableEntity | **read** |  |
| ARRetailTransactionPaymentLineEntityMaintain |  | ailTransactionPaymentLineEntity | **delete** |  |
| ARRetailTransactionPaymentLineEntityView |  | ARRetailTransactionPaymentLineEntity | **read** |  |

## Process Cycles

|  |  |  |
| --- | --- | --- |
| **Name** | **Duties** | **Addl Remarks** |
| -- | -- | -- |

Project name: ARVariantsGroupEntittes

**Forms Extension:**

|  |  |  |
| --- | --- | --- |
| **Object name** | **Purpose** | |
| **RetailColorGroupTable.ISLDEV** | Adding new field | |
| **RetailSizeGroupTable.ISLDEV** | Adding new field | |
| **RetailStyleGroupTable.ISLDEV** | Adding new field | |
| **Tables:** |  | |
| **Object name** | | **Purpose** |
| EcoResProductColorGroupLineV2Staging.ISLDEV | | Adding fields for color line entity in the staging table |
| EcoResProductColorGroupStaging.ISLDEV | | Adding fields for color group entity in the staging table |
| RetailColorGroupTable.ISLDEV | | Adding fields for color group table |
| RetailColorGroupTrans.ISLDEV | | Adding fields for color line table |
| EcoResProductSizeGroupLineV2Staging.ISLDEV | | Adding fields for size line entity in the staging table |
| EcoResProductSizeGroupStaging.ISLDEV | | Adding fields for size group entity in the staging table |
| RetailSizeGroupTable.ISLDEV | | Adding fields for size group table |
| RetailSizeGroupTrans.ISLDEV | | Adding fields for size line table |
| EcoResProductStyleGroupLineV2Staging.ISLDEV | | Adding fields for style line entity in the staging table |
| EcoResProductStyleGroupStaging.ISLDEV | | Adding fields for style group entity in the staging table |
| RetailStyleGroupTable.ISLDEV | | Adding fields for style group table |
| RetailStyleGroupTrans.ISLDEV | | Adding fields for style line table |

**Data Entities:**

|  |  |
| --- | --- |
| **Object name** | **Purpose** |
| EcoResProductColorGroupEntity.ISLDEV | Adding Arabic name to the color group |
| EcoResProductColorGroupLineV2Entity.ISLDEV | Adding Arabic name to the color line |
| EcoResProductSizeGroupEntity.ISLDEV | Adding Arabic name to the size group |
| EcoResProductSizeGroupLineV2Entity.ISLDEV | Adding Arabic name to the size line |
| EcoResProductStyleGroupEntity.ISLDEV | Adding Arabic name to the style group |
| EcoResProductStyleGroupLineV2Entity.ISLDEV | Adding Arabic name to the style line |

### Security design

## Security Roles

|  |  |  |
| --- | --- | --- |
| **Name** | **Duties** | **Addl Remarks** |
| -- | -- | -- |

## Duties

|  |  |  |
| --- | --- | --- |
| **Name** | **Privileges** | **Addl Remarks** |
| -- | -- | -- |

## Privileges

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Entry Points** | **DATA entity permission** | **Access Level** | **Addl Remarks** |
| -- |  | -- | **--** | **--** |

## Process Cycles

|  |  |  |
| --- | --- | --- |
| **Name** | **Duties** | **Addl Remarks** |
| -- | -- | -- |