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**A close up of a sign

Description automatically generated**

**Freight Rates (FR)**

**Entity Relationship Diagram**

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RELEASE HISTORY

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| --- | --- | --- |
| Release No | Content | Effective Date |
| 1 | Create basic modules | 10 rd May 2021 |
| 2 | Update ERD diagram | 3rd August 2021 |
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| --- | --- | --- | --- |
| Prepared by | Thanh Trinh | Date | Sign |
| Designation | System Developer |
| Reviewed By |  | Date | Sign |
| Designation |  |
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| Designation |  |
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# 1. Database & Coding Standardization

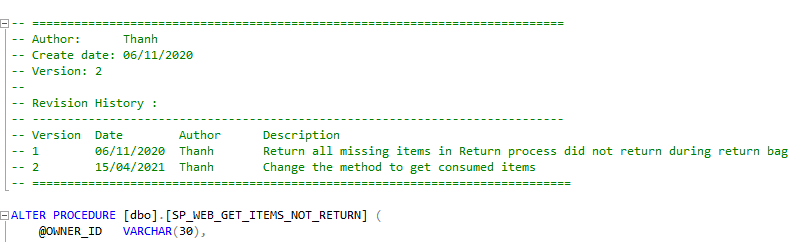
## 1.1 View & Stored Procedure Naming Convention

The name of view and stored procedure must follow as below:

|  |  |
| --- | --- |
| View Naming | Remarks |
| SV\_REF\_XXX | Base view for reference |
| SV\_MS\_XXX | Base view for master |
| SV\_TR\_XXX | Base view for transaction table |
| SV\_XXX | View to be use in module |
| RV\_XXX | View for report |

|  |  |
| --- | --- |
| Procedure Naming | Remarks |
| SP\_WEB\_[tablename] | Procedure for insert/update/delete purpose |
| SP\_WEB\_[tablename]\_GET\_XXX | Procedure for select purpose |
| RP\_WEB\_XXX | Procedure for report |
| FN\_XXXX | Function for getting value |

## 1.2 View & Stored Procedure Revision Comment Format

* Every view and stored procedure must include the standard format below on the above  
  of the view/stored procedure name.
* Every change on the view/stored procedure must add a new version with edited date,  
  author name and the change description under revision history.
* The latest version must be updated at every change.

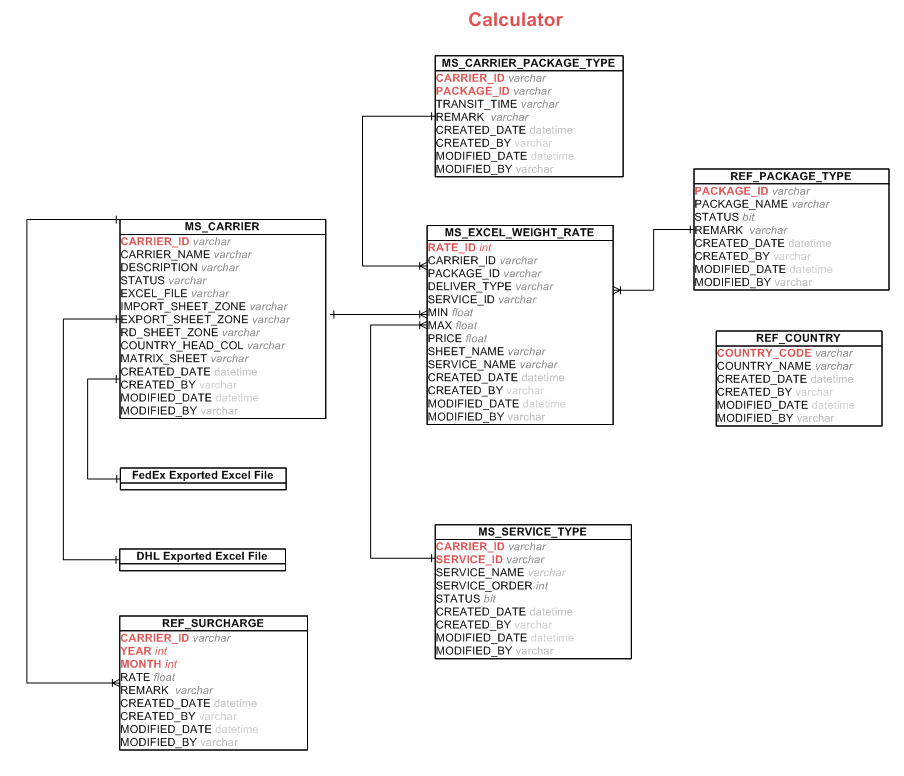
The latest version of this

view/store procedure

## 1.3 Standard Message

|  |  |  |
| --- | --- | --- |
| Module Name | Scenario | Message |
| General | No record found | No record found for %. |
| General | Mandatory field | This field is required. |
| General | Duplicated record | Duplicate record found for %. |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# 2. Calculator

****

**2.1 MS\_CARRIER**

This table keep every carrier in the system

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of the carrier |
| CARRIER\_NAME | The name of the carrier |
| DESCRIPTION | The short description of the carrier |
| STATUS | ACTIVE or OBS. The value refers to REF\_STATUS\_TYPE table with type CARRIER\_STATUS. Default value is ACTIVE |
| EXCEL\_FILE | This fileld is stored the excel file name that was exported by another team. The system will get data in the file. The file has many sheets which defined the price for each deliver type and package type. The file has contained the zone, the matrix that look up to calculate the price of freight rate base on the carrier... |
| IMPORT\_SHEET\_ZONE | The sheet name (in the excel file) which stores all country names and zone code for each country. It is only used for **Import** type. |
| EXPORT\_SHEET\_ZONE | The sheet name (in the excel file) which stores all country names and zone code for each country. It is only used for **Export** type. |
| RD\_SHEET\_ZONE | The sheet name (in the excel file) which stores all country names and zone code for each country. It is only used for **Third-party** type. |
| MATRIX\_SHEET | The sheet name (in the excel file) which stores all zone codes for origin country and destination country. It is only used for **Third-party** type. |
| COUNTRY\_HEAD\_COL | This field will store the first header column of all country in all sheets that contains countries and zone codes. |

## 2.2 MS\_ SERVICE\_TYPE

This table keeps all list of service type of all carriers in the system.

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of carrier. |
| SERVICE\_ID | The id of the service. |
| SERVICE\_NAME | The name of the service. |
| SERVICE\_ORDER | The order of service. |
| STATUS | This Status of the service. It has Y/N value. Default value is Y |

## 2.3 REF\_PACKAGE\_TYPE

This table keeps a list of package type for each carrier in the system

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| PACKAGE\_ID | The id of package type. |
| PAKCAGE\_NAME | Type of package:Envelope(Doc), Pak, Package, NIL... |
| REMARK | The short description of the package type. |

## 2.4 MS\_CARRIER\_PACKAGE\_TYPE

This table keeps a list of type of package type based on the carrier

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of the carrier |
| PACKAGE\_ID | The id of package type. |
| TRANSIT\_TIME | The transit lead time that counted by working days |
| REMARK | The short description of the package type. |

## 2.5 MS\_EXCEL\_WEIGHT\_RATE

This table keeps a list of sheet names in the excel file based on the carrier.

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of the carrier |
| ZONE\_CODE | The code of zone |
| SERVICE\_ID | Type of the service. It reference from **REF\_SERVICE\_TYPE** table |
| DELIVER\_TYPE | The type of carrier's deliver. They are IMPORT, EXPORT, 3D PARTY. The value refers to REF\_STATUS\_TYPE table with type DELIEVER\_TYPE. Default value is IMPORT |
| CARRIER\_PACK\_ID | The type of package base on the carrier. |
| MIN | Min weight value of product (start value of the range weight) |
| MAX | Max weight value of product (end value of the range weight) |
| PRICE | The price of this range weight |
| SERVICE\_NAME | Description of the service |

**2.6 REF\_SURCHAGE**

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of the carrier |
| YEAR | The year which apply the surchage cost |
| MONTH | The month's name which apply the surchage cost |
| RATE | The percent surcharge value for the carrier |

**2.7 REF\_COUNTRY**

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| COUNTRY\_CODE | The code of country |
| COUNTRY\_NAME | The name of country |
| SHORT\_NAME | The short name of the country |

**2.8 Exported Excel File**

**a. Surchage Exported Excel File**

The file has a surchage table rate based on each month for each carrier. It is external file which store in the server.

The files are contained the zone matrix that look up to calculate the price of freight rate base on the carrier. It is external file which store in the server.

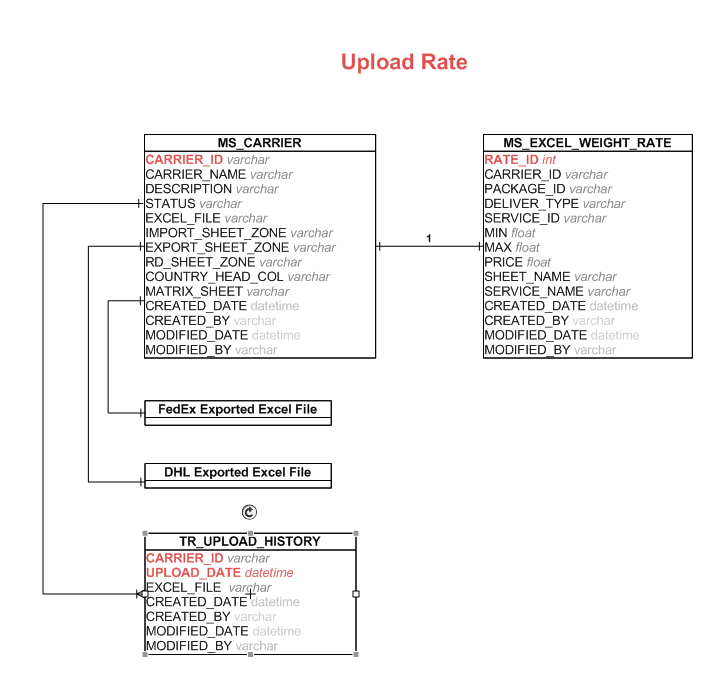
**b. DHL Exported Excel File**

The file has contained all countries, zone code, the matrix table, price tables for each deliver type. The system will read data in it to calculate the price of freight rate base on the **DHL carrier**. It is external file which store in the server.

**c. FedEx Exported Excel File**

The file has contained all countries, zone code, the matrix table, price tables for each deliver type. The system will read data in it to calculate the price of freight rate base on the **FedEx carrier**. It is external file which store in the server.

# 3. Upload Rate



**3.1 MS\_CARRIER**

This table keep every carrier in the system

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of the carrier |
| CARRIER\_NAME | The name of the carrier |
| DESCRIPTION | The short description of the carrier |
| STATUS | ACTIVE or OBS. The value refers to REF\_STATUS\_TYPE table with type CARRIER\_STATUS. Default value is ACTIVE |
| EXCEL\_FILE | This fileld is stored the excel file name that was exported by another team. The system will get data in the file. The file has many sheets which defined the price for each deliver type and package type. The file has contained the zone, the matrix that look up to calculate the price of freight rate base on the carrier... |
| IMPORT\_SHEET\_ZONE | The sheet name (in the excel file) which stores all country names and zone code for each country. It is only used for **Import** type. |
| EXPORT\_SHEET\_ZONE | The sheet name (in the excel file) which stores all country names and zone code for each country. It is only used for **Export** type. |
| RD\_SHEET\_ZONE | The sheet name (in the excel file) which stores all country names and zone code for each country. It is only used for **Third-party** type. |
| MATRIX\_SHEET | The sheet name (in the excel file) which stores all zone codes for origin country and destination country. It is only used for **Third-party** type. |
| COUNTRY\_HEAD\_COL | This field will store the first header column of all country in all sheets that contains countries and zone codes. |

## 3.2 MS\_EXCEL\_WEIGHT\_RATE

This table keeps a list of sheet names in the excel file based on the carrier.

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of the carrier |
| ZONE\_CODE | The code of zone |
| SERVICE\_ID | Type of the service. It reference from **REF\_SERVICE\_TYPE** table |
| DELIVER\_TYPE | The type of carrier's deliver. They are IMPORT, EXPORT, 3D PARTY. The value refers to REF\_STATUS\_TYPE table with type DELIEVER\_TYPE. Default value is IMPORT |
| CARRIER\_PACK\_ID | The type of package base on the carrier. |
| MIN | Min weight value of product (start value of the range weight) |
| MAX | Max weight value of product (end value of the range weight) |
| PRICE | The price of this range weight |
| SERVICE\_NAME | Description of the service |

**3.3 TR\_UPLOAD\_HISTORY**

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of the carrier |
| UPLOAD\_DATE | The date that user uploaded a new excel file |
| EXCEL\_FILE | The file name which user uploaded |

**3.4 Exported Excel File**

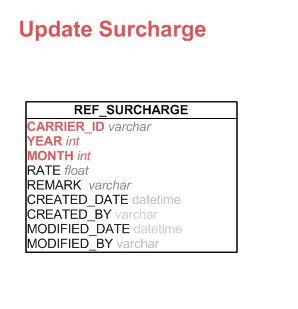
**a. DHL Exported Excel File**

The file has contained all countries, zone code, the matrix table, price tables for each deliver type. The system will read data in it to calculate the price of freight rate base on the **DHL carrier**. It is external file which store in the server.

**b. FedEx Exported Excel File**

The file has contained all countries, zone code, the matrix table, price tables for each deliver type. The system will read data in it to calculate the price of freight rate base on the **FedEx carrier**. It is external file which store in the server.

# 4. Upload Surchage



**4.1 REF\_SURCHAGE**

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The id of the carrier |
| YEAR | The year which apply the surchage cost |
| MONTH | The month's name which apply the surchage cost |
| RATE | The percent surcharge value for the carrier |

# 5. Other tables

**REF\_STATUS\_TYPE**

This tables keep a list of status which used in the system.

## MS\_USER

This tables keep all accounts which used to login the portal.

## MS\_CONFIGURATION

This tables a list of parameters value and used for the system .