**MENTOR MEDIA LTD**

**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 |
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| Prepared by | Thanh Trinh | Date | Sign |
| Designation | System Developer |
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# 1. Database & Coding Standardization

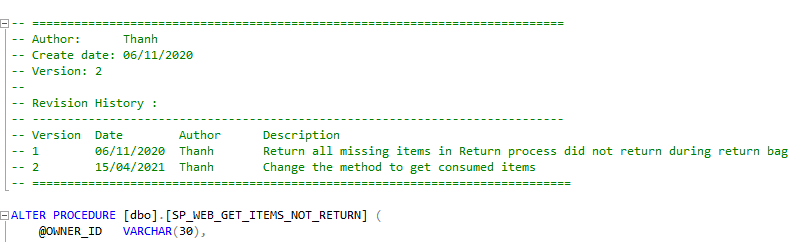
## 1.1 View & Stored Procedure Naming Convention

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.

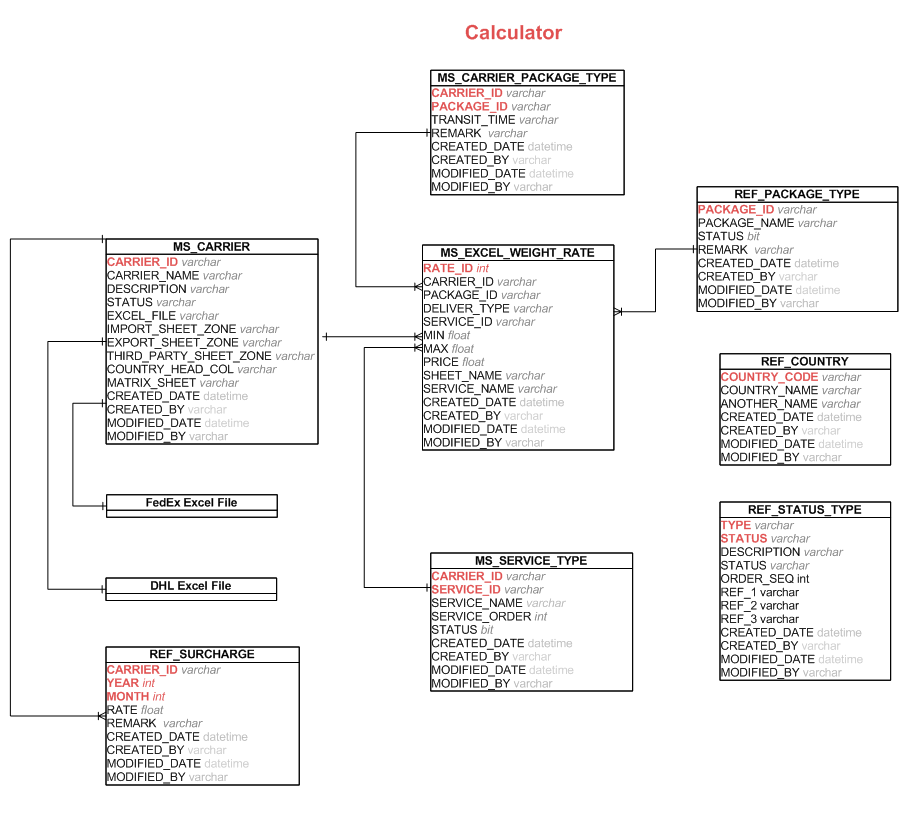
The latest version of this

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. |
| THIRD\_PARTY\_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**

This table keep the surcharge of all carriers that used to calculate the price rate. It will been updated every month.

|  |  |
| --- | --- |
| **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**

This table keep a full list of the countries and used for **Origin/Destination** reference.

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| COUNTRY\_CODE | The code of country |
| COUNTRY\_NAME | The name of country |
| ANOTHER\_NAME | The another name of the country. Because each carrier will have difference country name in their data so that this field will help us to resolved the issue. Example: The DHL has labeled USA but FedEx called it U.S.A |

**2.8 REF\_STATUS\_TYPE**

This table keep a full list of system status and used for carrier's status reference.

**2.9 Template Excel File**

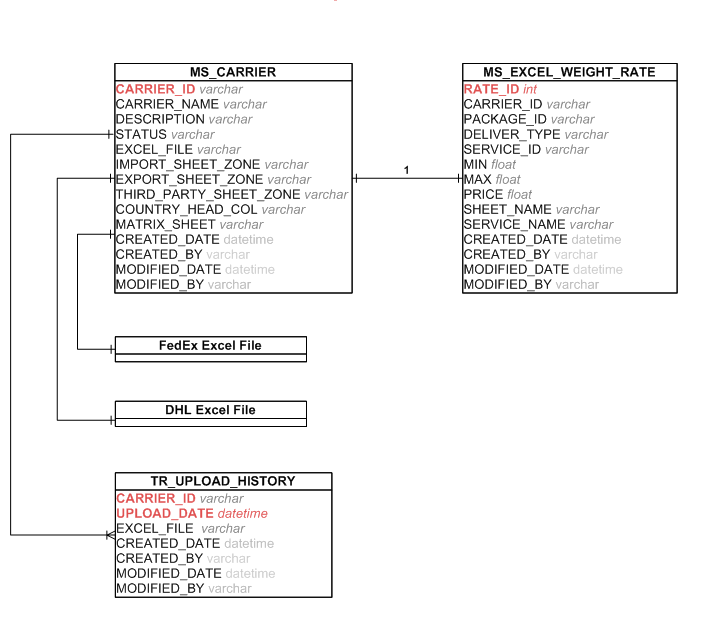
**a. DHL Excel File**

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. It is the lastest file that used to read data in current yean. The name of file has stored in the MS\_CARRIER table.

**b. FedEx 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. It is the lastest file that used to read data in current yean. The name of file has stored in the MS\_CARRIER table.

# 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. |
| THIRD\_PARTY\_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**

This table keep all the data of each carrier which uploaded by user in years.

|  |  |
| --- | --- |
| **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** **Template Excel File**

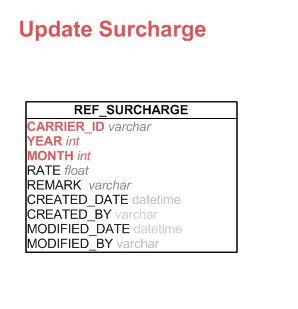
**a. DHL Excel File**

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. It is the lastest file that used to read data in current yean. The name of file has stored in the MS\_CARRIER table.

**b. FedEx 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. It is the lastest file that used to read data in current yean. The name of file has stored in the MS\_CARRIER table.

# 4. Upload Surchage

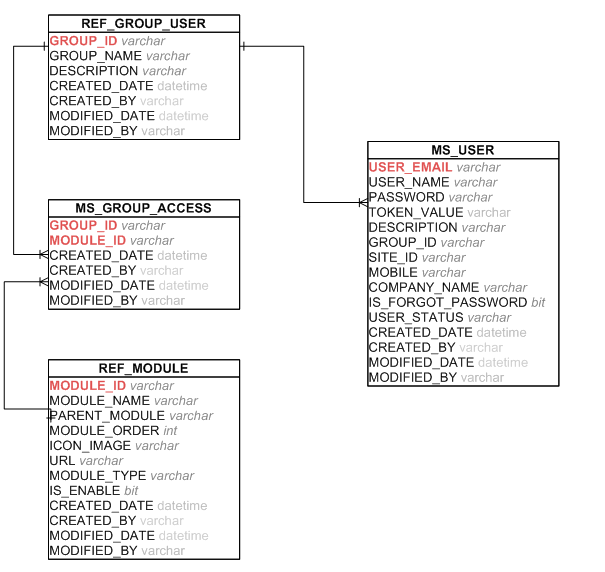


**4.1 REF\_SURCHAGE**

The table keeps the surcharge for each carrier in every month of a year.

|  |  |
| --- | --- |
| **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. Users



# 5.1. MS\_USER

This table keeps the user account created for the portal.

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| USER\_EMAIL | It is login credentials which is an email address. It is either Mentor email  address or outsider email address. |
| USER\_NAME | It is the name of the user. |
| PASSWORD | It is login credentials which is in alphanumeric. |
| USER\_STATUS | It will be PENDING once the account is created. The value refers to REF\_STATUS\_TYPE table with type USER\_STATUS |
| GROUP\_ID | It is the name of group that user is granted. The value refers to GROU\_ID table |
| SITE\_ID | It is the site of Mentor Media area that the user is working at. The value refers to REF\_STATUS\_TYPE table with type MM\_SITE |

# 5.2 REF\_MODULE

This table keep the modules available in the portal.

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| MODULE\_NAME | The name of the module shown in the menu. |
| MODULE\_ORDER | Indicates the order sequence of the module displayed in the menu. |
| MODULE\_TYPE | Indicates the module is able to access in Portal or Mobile or All. The module could be only available in Portal or only in Mobile or for both. |
| IS\_ENABLED | It is an active flag indicator for each module. The value is 1 for active module while 0 for inactive module. |
| URL | It is the hyper link that the user can access the module in the portal |
| ICON\_IMAGE | It is the icon of the module |

# 5.3 REF\_GROUP\_USER

This table keep all the user's group that granted permission to access modules in the system.

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| GROUP\_ID | The id of the group |
| GROUP\_NAME | The name of the group |

# 5.4 MS\_GROUP\_ACCESS

This table keep the access right to the module for different user's group. The module name list on homepage and the visibility of the menu will be displayed based on this table.

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| MODULE\_ID | The value refers to MODULE\_ID in REF\_MODULE table. |
| GROUP\_ID | The value refers to GROUP\_ID in REF\_GROUP\_USER table |

# 6. Other tables

## MS\_CONFIGURATION

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

|  |  |
| --- | --- |
| **Column Name** | **Description** |
| CARRIER\_ID | The carrier id. |
| PARA\_CODE | The id of parameter |
| PARA\_VALUE | The parameter's value |
| PARA\_EXTEND | The description of parameter |