Data Mapping STD Document

1 Introduction

This document describes the data mappings between the source (ODS) schemas and the target (DWH) schemas, along with the respective tables and their relationships. The insertion methods are as follows:

- From Source to ODS: **truncate/insert**

- From ODS to DWH: **insert/update**

2 Table Mappings

2.1 From Source to ODS

This section describes the mappings from the source systems to the ODS, where each attribute from the source retains its name in the ODS but is prefixed with `ods_`.

2.1.1 Business Mapping

Source File: ops_projects.xlsx
Target Table: ods_business

Source Column	Data Type	Target Column	Data Type
BUSINESS_CODE	varchar(45)	ods_BUSINESS_CODE	varchar(45)
BUSINESS_NAME	varchar(45)	ods_BUSINESS_NAME	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.1.2 Business Unit Mapping

Source File: ops_projects.xlsx
Target Table: ods_business_unit

Source Column	Data Type	Target Column	Data Type
BUSINESS_UNIT_CODE	varchar(45)	ods_BUSINESS_UNIT_CODE	varchar(45)
BUSINESS_UNIT_TITLE	varchar(45)	ods_BUSINESS_UNIT_TITLE	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.1.3 Employee Mapping

Source File: employee.xlsx
Target Table: ods_employee

Source Column	Data Type	Target Column	Data Type
EMPLOYEE_CODE	varchar(45)	ods_EMPLOYEE_CODE	varchar(45)
FIRST_NAME	varchar(45)	ods_FIRST_NAME	varchar(45)
LAST_NAME	varchar(45)	ods_LAST_NAME	varchar(45)
GENDER	varchar(45)	ods_GENDER	varchar(45)
BIRTH_DATE	datetime	ods_BIRTH_DATE	datetime
FAMILY_STATUS	varchar(45)	ods_FAMILY_STATUS	varchar(45)
DEGREE_NAME	varchar(45)	ods_DEGREE_NAME	varchar(45)
DEGREE_CODE	varchar(45)	ods_DEGREE_CODE	varchar(45)
OFFICE_CODE	varchar(45)	ods_OFFICE_CODE	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.1.4 Office Mapping

Source File: ref_data_source.xlsx
Target Table: ods_office

Source Column	Data Type	Target Column	Data Type
OFFICE_CODE	varchar(45)	ods_OFFICE_CODE	varchar(45)
OFFICE_TITLE	varchar(45)	ods_OFFICE_TITLE	varchar(45)
REGION_CODE	varchar(45)	ods_REGION_CODE	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.1.5 Leave Type Mapping

Source File: ref_data_source.xlsx
Target Table: ods_leave_type

Source Column	Data Type	Target Column	Data Type
LEAVE_TYPE_CODE	varchar(45)	ods_LEAVE_TYPE_CODE	varchar(45)
LEAVE_CATEGORY_CODE	varchar(45)	ods_LEAVE_TYPE_CODE	varchar(45)
LEAVE_TYPE_NAME	varchar(45)	ods_LEAVE_TYPE_NAME	varchar(45)
LEAVE_DAYS_PLANNED	int	ods_LEAVE_DAYS_PLANNED	int
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.1.6 Leave Type Category Mapping

Source File: ref_data_source.xlsx
Target Table: ods_leave_type_category

Source Column	Data Type	Target Column	Data Type
LEAVE_TYPE_CATEGORY_CODE	varchar(45)	ods_LEAVE_TYPE_CATEGORY_CODE	varchar(45)
LEAVE_TYPE_CATEGORY_NAME	varchar(45)	ods_LEAVE_TYPE_CATEGORY_NAME	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.1.7 Region Mapping

Source File: ref_data_source.xlsx
Target Table: ods_region

Source Column	Data Type	Target Column	Data Type
REGION_CODE	varchar(45)	ods_REGION_CODE	varchar(45)
REGION_NAME	varchar(45)	ods_REGION_NAME	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.1.8 Project Mapping

Source File: ops_projects.xlsx
Target Table: ods_project

Source Column	Data Type	Target Column	Data Type
PROJECT_CODE	varchar(45)	ods_PROJECT_CODE	varchar(45)
OFFICE_CODE	varchar(45)	ods_OFFICE_CODE	varchar(45)
BUSINESS_UNIT_CODE	varchar(45)	ods_BUSINESS_UNIT_CODE	varchar(45)
BUSINESS_CODE	varchar(45)	ods_BUSINESS_CODE	varchar(45)
PROJECT_NAME	varchar(45)	ods_PROJECT_NAME	varchar(45)
START_DATE	datetime	ods_START_DATE	datetime
PROJECT_DURATION	int	ods_PROJECT_DURATION	int
ESTIMATED_DELIVERY_DATE	datetime	ods_ESTIMATED_DELIVERY_DATE	datetime
ACTUAL_DELIVERY_DATE	datetime	ods_ACTUAL_DELIVERY_DATE	datetime
BUSINESS_MODEL_CODE	varchar(45)	ods_BUSINESS_MODEL_CODE	varchar(45)
PROSPECT_CODE	varchar(45)	ods_PROSPECT_CODE	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.1.9 Lot Mapping

Source File: ops_projects.xlsx
Target Table: ods_lot

Source Column	Data Type	Target Column	Data Type
PROSPECT_CODE	varchar(45)	ods_PROSPECT_CODE	varchar(45)
LOT_CODE	varchar(45)	ods_LOT_CODE	varchar(45)
ESTIMATED_DELIVERY_DATE	datetime	ods_ESTIMATED_DELIVERY_DATE	datetime
ACTUAL_DELIVERY_DATE	datetime	ods_ACTUAL_DELIVERY_DATE	datetime
LOT_NAME	varchar(45)	ods_LOT_NAME	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.2 Phase Mapping

Source File: ops_projects.xlsx
Target Table: ods_phase

Source Column	Data Type	Target Column	Data Type
LOT_CODE	varchar(45)	ods_LOT_CODE	varchar(45)
PHASE_CODE	varchar(45)	ods_PHASE_CODE	varchar(45)
PHASE_NAME	varchar(45)	ods_PHASE_NAME	varchar(45)
START_DATE	datetime	ods_START_DATE	datetime
ESTIMATED_DELIVERY_DATE	datetime	ods_ESTIMATED_DELIVERY_DATE	datetime
ACTUAL_DELIVERY_DATE	datetime	ods_ACTUAL_DELIVERY_DATE	datetime
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.3 Task Mapping

Source File: ops_projects.xlsx
Target Table: ods_task

Source Column	Data Type	Target Column	Data Type
PHASE_CODE	varchar(45)	ods_PHASE_CODE	varchar(45)
TASK_TYPE_CODE	varchar(45)	ods_TASK_TYPE_CODE	varchar(45)
TASK_CODE	varchar(45)	ods_TASK_CODE	varchar(45)
TASK_NAME	varchar(90)	ods_TASK_NAME	varchar(90)
ESTIMATED_TASK_LOAD	varchar(45)	ods_ESTIMATED_TASK_LOAD	varchar(45)
START_DATE	datetime	ods_START_DATE	datetime
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.4 Task Type Mapping

Source File: ops_projects.xlsx
Target Table: ods_task_type

Source Column	Data Type	Target Column	Data Type
TASK_TYPE_CODE	varchar(45)	ods_TASK_TYPE_CODE	varchar(45)
TASK_TYPE_NAME	varchar(45)	ods_TASK_TYPE_NAME	varchar(45)
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.5 Capacity Mapping

Source File: ops_capacity.xlsx
Target Table: ods_capacity

Source Column	Data Type	Target Column	Data Type
CAPACITY_MONTH	int	ods_CAPACITY_MONTH	int
OFFICE_CODE	varchar(45)	ods_OFFICE_CODE	varchar(45)
BUSINESS_UNIT_CODE	varchar(45)	ods_BUSINESS_UNIT_CODE	varchar(45)
CAPACITY_MEN_DAYS	int	ods_CAPACITY_MEN_DAYS	int
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

2.6 Imputation Mapping

Source File: ops_imputation.xlsx
Target Table: ods_imputation

Source Column	Data Type	Target Column	Data Type
EMPLOYEE_CODE	varchar(45)	ods_EMPLOYEE_CODE	varchar(45)
TASK_CODE	varchar(45)	ods_TASK_CODE	varchar(45)
TASK_NAME	varchar(45)	ods_TASK_NAME	varchar(45)
IMPUTATION_DATE	datetime	ods_IMPUTATION_DATE	datetime
IMPUTATED_LOAD	int	ods_IMPUTATED_LOAD	int
BILLABLE	int	ods_BILLABLE	int
STATUS	int	ods_STATUS	int
ACQUISITION_DATE	datetime	ods_ACQUISITION_DATE	datetime
		ods_INSERT_DATE	datetime

3 From ODS to DWH

This document describes the data mappings between the source (ODS) schemas and the target (DWH) schemas, along with the respective tables and their relationships.

4 Table Mappings

4.1 Business Mapping

Source Table: ods_business
Target Table: 'dwh_dim_business

Source Column	Data Type	Target Column	Data Type
ods_BUSINESS_CODE	varchar(45)	dwh_BUSINESS_CODE	varchar(45)
ods_BUSINESS_NAME	varchar(45)	dwh_BUSINESS_NAME	varchar(45)
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_BUSINESS_ID	int (PK)

4.2 Business Unit Mapping

Source Table: ods_business_unit
Target Table: 'dwh_dim_business_unit

Source Column	Data Type	Target Column	Data Type
ods_BUSINESS_UNIT_CODE	varchar(45)	dwh_BUSINESS_UNIT_CODE	varchar(45)
ods_BUSINESS_UNIT_TITLE	varchar(45)	dwh_BUSINESS_UNIT_TITLE	varchar(45)
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_BUSINESS_UNIT_ID	int (PK)
		dwh_BUSINESS_ID	int (FK to dim_business)

4.3 Employee Mapping

Source Table: ods_employee
Target Table: 'dwh_dim_employee

Source Column	Data Type	ODS Column	Data Type
ods_EMPLOYEE_CODE	varchar(45)	dwh_EMPLOYEE_CODE	varchar(45)
ods_FIRST_NAME	varchar(45)	dwh_FIRST_NAME	varchar(45)
ods_LAST_NAME	varchar(45)	dwh_LAST_NAME	varchar(45)
ods_GENDER	varchar(45)	dwh_GENDER	varchar(45)
ods_BIRTH_DATE	datetime	dwh_BIRTH_DATE	datetime
ods_FAMILY_STATUS	varchar(45)	dwh_FAMILY_STATUS	varchar(45)
ods_DEGREE_NAME	varchar(45)	dwh_DEGREE_NAME	varchar(45)
ods_DEGREE_CODE	varchar(45)	dwh_DEGREE_CODE	varchar(45)
ods_OFFICE_CODE	varchar(45)	dwh_OFFICE_CODE	varchar(45)
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_EMPLOYEE_ID	int (PK)

4.4 Leave Type Mapping

Source Table: ods_leave_type
Target Table: 'dwh_dim_leave_type

Source Column	Data Type	Target Column	Data Type
ods_LEAVE_TYPE_CODE	varchar(45)	dwh_LEAVE_TYPE_CODE	varchar(45)
ods_LEAVE_CATEGORY_CODE	varchar(45)	dwh_LEAVE_TYPE_CODE	varchar(45)
ods_LEAVE_TYPE_NAME	varchar(45)	dwh_LEAVE_TYPE_NAME	varchar(45)
ods_LEAVE_DAYS_PLANNED	int	dwh_LEAVE_DAYS_PLANNED	int
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_dwh_LEAVE_TYPE_ID	int (PK)

4.5 Office Mapping

Source Table: ods_office
Target Table: 'dwh_dim_office

Source Column	Data Type	Target Column	Data Type
ods_OFFICE_CODE	varchar(45)	dwh_OFFICE_CODE	varchar(45)
ods_OFFICE_TITLE	varchar(45)	dwh_OFFICE_TITLE	varchar(45)
ods_REGION_CODE	varchar(45)	dwh_REGION_CODE	varchar(45)
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_dwh_OFFICE_ID	int (PK)

4.6 Leave Type Category Mapping

Source Table: ods_leave_type_category
Target Table: 'dwh_dim_leave_type_category

Source Column	Data Type	Target Column	Data Type
ods_LEAVE_TYPE_CATEGORY_CODE	varchar(45)	dwh_LEAVE_TYPE_CATEGORY_CODE	varchar(45)
ods_LEAVE_TYPE_CATEGORY_NAME	varchar(45)	dwh_LEAVE_TYPE_CATEGORY_NAME	varchar(45)
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_LEAVE_TYPE_CATEGORY_ID	int (PK)

4.7 Region Mapping

Source Table: ods_region
Target Table: 'dwh_dim_region

Source Column	Data Type	Target Column	Data Type
ods_REGION_CODE	varchar(45)	dwh_REGION_CODE	varchar(45)
ods_REGION_NAME	varchar(45)	dwh_REGION_NAME	varchar(45)
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_REGION_ID	int (PK)

4.8 Project Mapping

Source Table: ods_project
Target Table: 'dwh_dim_project

Source Column	Data Type	Target Column	Data Type
ods_PROJECT_CODE	varchar(45)	dwh_PROJECT_CODE	varchar(45)
ods_OFFICE_CODE	varchar(45)	dwh_OFFICE_CODE	varchar(45)
ods_BUSINESS_UNIT_CODE	varchar(45)	dwh_BUSINESS_UNIT_CODE	varchar(45)
ods_BUSINESS_CODE	varchar(45)	dwh_BUSINESS_CODE	varchar(45)
ods_PROJECT_NAME	varchar(45)	dwh_PROJECT_NAME	varchar(45)
ods_START_DATE	datetime	dwh_START_DATE	datetime
ods_PROJECT_DURATION	int	dwh_PROJECT_DURATION	int
ods_ESTIMATED_DELIVERY_DATE	datetime	dwh_ESTIMATED_DELIVERY_DATE	datetime
ods_ACTUAL_DELIVERY_DATE	datetime	dwh_ACTUAL_DELIVERY_DATE	datetime
ods_BUSINESS_MODEL_CODE	varchar(45)	dwh_BUSINESS_MODEL_CODE	varchar(45)
ods_PROSPECT_CODE	varchar(45)	dwh_PROSPECT_CODE	varchar(45)
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_PROJECT_ID	int (PK)

4.9   Lot Mapping

Source Table: ods_lot
Target Table: 'dwh_dim_lot

Source Column	Data Type	Target Column	Data Type
ods_PROSPECT_CODE	varchar(45)	dwh_PROSPECT_CODE	varchar(45)
ods_LOT_CODE	varchar(45)	dwh_LOT_CODE	varchar(45)
ods_ESTIMATED_DELIVERY_DATE	datetime	dwh_ESTIMATED_DELIVERY_DATE	datetime
ods_ACTUAL_DELIVERY_DATE	datetime	dwh_ACTUAL_DELIVERY_DATE	datetime
ods_LOT_NAME	varchar(45)	dwh_LOT_NAME	varchar(45)
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_LOT_ID	int (PK)
		dwh_PROJECT_ID	int (FK to dim_project)

4.10   Phase Mapping

Source Table: ods_phase
Target Table: 'dwh_dim_phase

Source Column	Data Type	Target Column	Data Type
ods_LOT_CODE	varchar(45)	dwh_LOT_CODE	varchar(45)
ods_PHASE_CODE	varchar(45)	dwh_PHASE_CODE	varchar(45)
ods_PHASE_NAME	varchar(45)	dwh_PHASE_NAME	varchar(45)
ods_START_DATE	datetime	dwh_START_DATE	datetime
ods_ESTIMATED_DELIVERY_DATE	datetime	dwh_ESTIMATED_DELIVERY_DATE	datetime
ods_ACTUAL_DELIVERY_DATE	datetime	dwh_ACTUAL_DELIVERY_DATE	datetime
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_PHASE_ID	int (PK)
		dwh_LOT_ID	int (FK to dim_lot)

4.11   Task Mapping

Source Table: ods_task
Target Table: 'dwh_dim_task

Source Column	Data Type	Target Column	Data Type
ods_PHASE_CODE	varchar(45)	dwh_PHASE_CODE	varchar(45)
ods_TASK_TYPE_CODE	varchar(45)	dwh_TASK_TYPE_CODE	varchar(45)
ods_TASK_CODE	varchar(45)	dwh_TASK_CODE	varchar(45)
ods_TASK_NAME	varchar(90)	dwh_TASK_NAME	varchar(90)
ods_ESTIMATED_TASK_LOAD	varchar(45)	dwh_ESTIMATED_TASK_LOAD	varchar(45)
ods_START_DATE	datetime	dwh_START_DATE	datetime
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_TASK_ID	int (PK)
		dwh_PHASE_ID	int (FK to dim_phase)
		dwh_TASK_TYPE_ID	int (FK to dim_task_type)

4.12 Task Type Mapping

Source Table: ods_task_type
Target Table: 'dwh_dim_task_type

Source Column	Data Type	Target Column	Data Type
ods_TASK_TYPE_CODE	varchar(45)	dwh_TASK_TYPE_CODE	varchar(45)
ods_TASK_TYPE_NAME	varchar(45)	dwh_TASK_TYPE_NAME	varchar(45)
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_TASK_TYPE_ID	int (PK)

4.13 Capacity Mapping

Source Table: ods_capacity
Target Table: 'dwh_fact_capacity

Source Column	Data Type	Target Column	Data Type
ods_CAPACITY_MONTH	int	dwh_CAPACITY_MONTH	int
ods_OFFICE_CODE	varchar(45)	dwh_OFFICE_CODE	varchar(45)
ods_BUSINESS_UNIT_CODE	varchar(45)	dwh_BUSINESS_UNIT_CODE	varchar(45)
ods_CAPACITY_MEN_DAYS	int	dwh_CAPACITY_MEN_DAYS	int
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_CAPACITY_MONTH_ID	int (PK)
		dwh_OFFICE_ID	int (FK to dim_office)
		dwh_BUSINESS_UNIT_ID	int (FK to dim_business_unit)

4.14 Imputation Mapping

Source Table: ods_imputation
Target Table: 'dwh_fact_imputation

Source Column	Data Type	Target Column	Data Type
ods_EMPLOYEE_CODE	varchar(45)	dwh_EMPLOYEE_CODE	varchar(45)
ods_TASK_CODE	varchar(45)	dwh_TASK_CODE	varchar(45)
ods_TASK_NAME	varchar(45)	dwh_TASK_NAME	varchar(45)
ods_IMPUTATION_DATE	datetime	dwh_IMPUTATION_DATE	datetime
ods_IMPUTATED_LOAD	int	dwh_IMPUTATED_LOAD	int
ods_BILLABLE	int	dwh_BILLABLE	int
ods_STATUS	int	dwh_STATUS	int
ods_ACQUISITION_DATE	datetime	dwh_ACQUISITION_DATE	datetime
ods_INSERT_DATE	datetime	dwh_INSERT_DATE	datetime
		dwh_UPDATE_DATE	datetime
		dwh_EMPLOYEE_ID	int (FK to dim_employee)
		dwh_TASK_ID	int (FK to dim_task)
		dwh_IMPUTATION_ID	int (PK)

5 Table Relationships

- **dim_business_unit** is linked to **dim_business** through **BUSINESS_ID**.

- **dim_employee** is linked to **dim_office** through **OFFICE_ID**.

- **dim_leave_type** is linked to **dim_leave_type_category** through **LEAVE_TYPE_CATEGORY_ID**.

- **dim_leave_type_category** is linked to **dim_region** through **REGION_ID**.

- **dim_lot** is linked to **dim_project** through **PROJECT_ID**.

- **dim_phase** is linked to **dim_lot** through **LOT_ID**.

- **dim_task** is linked to **dim_task_type** through **TASK_TYPE_ID**.

- **dim_task** is also linked to **dim_phase** through **PHASE_ID**.

- **fact_capacity** is linked to **dim_office** through **OFFICE_ID** and **dim_business_unit** through **BUSINESS_UNIT_ID**.

- **fact_imputation** is linked to **dim_employee** through **EMPLOYEE_ID** and **dim_task** through **TASK_ID**.