Logic Systems

Projects database

Data Dictionary

2017-02-09

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Legend

- 🔑 Primary key
- 🔑 Primary key disabled
- 🔑 User-defined primary key
- 🔑 Unique key
- 🔑 Unique key disabled
- 🔑 User-defined unique key
- ⚡ Active trigger
- ⚡ Disabled trigger
- ➤ Primary key relation
- ➤ User-defined primary key relation
- ➤ Foreign key relation
- ➤ User-defined foreign key relation
- ➹@ Input
- @➹ Output
- ➹@➹ Input/Output

1. Projects database

This is a sample data dictionary for projects database.

Data Dictionary was created with Dataedo (https://dataedo.com).

2. Projects

Our organization is project-driven and most of the work carried out is organized in projects. This includes assignments for clients and all internal projects.

Projects and activities are organized in a hierarchy:

1. Programs
2. Projects
3. WBS elements (hierarchichal)
4. Activities

2.1. Tables

2.1.1. Table: ACTIVITIES

Columns

	Name	Data type	Description
🔑	ACTIVITY_ID	NUMBER	
	ACTIVITY_NO	VARCHAR2(50 CHAR)	

Name	Data type	Description
NAME	VARCHAR2(150 CHAR)	
PROJECT_ID	NUMBER	
DESCRIPTION	VARCHAR2(4000 CHAR)	
SCOPE	VARCHAR2(4000 CHAR)	
DELIVERABLES	VARCHAR2(4000 CHAR)	
ACTIVITY_TYPE_ID	NUMBER	
STATUS_ID	NUMBER	
MANAGER_ID	NUMBER	
EXPECTED_BEGIN	DATE	
EXPECTED_END	DATE	
BUDGET_HOURS	NUMBER	
BUDGET_COST	NUMBER	
ASSIGNED_TO_DEPARTMENT_ID	NUMBER	
ASSIGNED_TO_PERSON_ID	NUMBER	
ASSIGNED_TO_SUPPLIER_ID	NUMBER	
CONTRACT_NUMBER	VARCHAR2(50 CHAR)	
CONTRACT_DATE	DATE	
CONTRACT_TYPE	VARCHAR2(10 CHAR)	
ACTUAL_BEGIN	DATE	
ACTUAL_END	DATE	
CREATED_DATE	DATE	Default value: SYSDATE.
CREATED_BY	NUMBER	
MODIFIED_DATE	DATE	Default value: SYSDATE.
MODIFIED_BY	NUMBER	
WBS_ID	NUMBER	

Links to

	Table	Join	Title / Name / Description
⤲	COMPANIES	**ACTIVITIES.**ASSIGNED_TO_SUPPLIER_ID = COMPANIES.COMPANY_ID	FK_ACTIVITIES_SUPPLIER
⤲	DEPARTMENTS	**ACTIVITIES.**ASSIGNED_TO_DEPARTMENT_ID = DEPARTMENTS.DEPARTMENT_ID	FK_ACTIVITIES_DEPARTMENT
⤲	DICTIONARY	**ACTIVITIES.**ACTIVITY_TYPE_ID = DICTIONARY.DICT_VAL_ID	FK_ACTIVITIES_TYPE where DICT = 'ACTOVITY'
⤲	PEOPLE	**ACTIVITIES.**ASSIGNED_TO_PERSON_ID = PEOPLE.PERSON_ID	FK_ACTIVITIES_PERSON
⤲	PROJECTS	**ACTIVITIES.**PROJECT_ID = PROJECTS.PROJECT_ID	FK_ACTIVITIES_PROJECT
⤲	STATUSES	**ACTIVITIES.**STATUS_ID = STATUSES.STATUS_ID	FK_ACTIVITIES_STATUS
⤲₁	WBS	**ACTIVITIES.**WBS_ID = WBS.WBS_ID	User-defined relation

Linked from

	Table	Join	Title / Name / Description
⊸	ACTIVITIES_RELATIONSHIPS	**ACTIVITIES.**ACTIVITY_ID = ACTIVITIES_RELATIONSHIPS.ACTIVITY_ID	FK_ACTIVITIES_REL_ACT
⊸	ACTIVITIES_RELATIONSHIPS	**ACTIVITIES.**ACTIVITY_ID = ACTIVITIES_RELATIONSHIPS.PRECEDING_ACTIVITY_ID	FK_ACTIVITIES_REL_PREC
⊸	CST_PROJECT_COSTS	**ACTIVITIES.**ACTIVITY_ID = CST_PROJECT_COSTS.ACTIVITY_ID	FK_CST_PROJECT_COSTS_ACT
⊸	CST_PROJECT_TIME_LOG	**ACTIVITIES.**ACTIVITY_ID = CST_PROJECT_TIME_LOG.ACTIVITY_ID	FK_CST_PROJECT_TIME_ACT

Unique keys

	Name	Columns	Description
🔑	PK_ACTIVITIES	ACTIVITY_ID	

Uses

Name
⊞ ACTIVITIES
⊞ COMPANIES
⊞ DEPARTMENTS
⊞ DICTIONARY
⊞ PEOPLE
⊞ PROJECTS
⊞ STATUSES
⊞ WBS

Used by

Name
⊞ ACTIVITIES
⊞ ACTIVITIES_RELATIONSHIPS
⊞ ACTIVITIES_RELATIONSHIPS
⊞ CST_PROJECT_COSTS
⊞ CST_PROJECT_TIME_LOG

2.1.2. Table: ACTIVITIES_RELATIONSHIPS

Columns

	Name	Data type	Description
🔑	ACTIVITY_RELATIONSHIP_ID	NUMBER	
	ACTIVITY_ID	NUMBER	
	PRECEDING_ACTIVITY_ID	NUMBER	
	CREATED_DATE	DATE	Default value: SYSDATE.

Name	Data type	Description
CREATED_BY	NUMBER	
MODIFIED_DATE	DATE	Default value: SYSDATE.
MODIFIED_BY	NUMBER	

Links to

	Table	Join	Title / Name / Description
✈	ACTIVITIES	**ACTIVITIES_RELATIONSHIPS.**ACTIVITY_ID = ACTIVITIES.ACTIVITY_ID	FK_ACTIVITIES_REL_ACT
✈	ACTIVITIES	**ACTIVITIES_RELATIONSHIPS.**PRECEDING_ACTIVITY_ID = ACTIVITIES.ACTIVITY_ID	FK_ACTIVITIES_REL_PREC

Unique keys

	Name	Columns	Description
🔑	PK_ACTIVITIES_RELATIONSHIPS	ACTIVITY_RELATIONSHIP_ID	

Uses

Name
▦ **ACTIVITIES_RELATIONSHIPS**
▦ ACTIVITIES
▦ ACTIVITIES

2.1.3. Table: PROGRAMS

Columns

	Name	Data type	Description
🔑	PROGRAM_ID	NUMBER	
	NAME	VARCHAR2(50 BYTE)	
	DESCRIPTION	VARCHAR2(250 BYTE)	
	DEPARTMENT_ID	NUMBER	
	MANAGER_ID	NUMBER	
	STATUS	VARCHAR2(5 BYTE)	
	PROGRAM_TYPE_ID	NUMBER	
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	
	MODIFIED_DATE	DATE	Default value: SYSDATE.
	MODIFIED_BY	NUMBER	

Links to

	Table	Join	Title / Name / Description
✈	DEPARTMENTS	**PROGRAMS.**DEPARTMENT_ID = DEPARTMENTS.DEPARTMENT_ID	FK_PROGRAMS_DEPARTMENT
✈	DICTIONARY	**PROGRAMS.**PROGRAM_TYPE_ID = DICTIONARY.DICT_VAL_ID	FK_PROGRAMS_TYPE where DICT = 'PROGRAM'

	Table	Join	Title / Name / Description
✈	PEOPLE	**PROGRAMS.**MANAGER_ID = PEOPLE.PERSON_ID	FK_PROGRAMS_MANAGER

Linked from

	Table	Join	Title / Name / Description
←	PROJECTS	**PROGRAMS.**PROGRAM_ID = PROJECTS.PROGRAM_ID	FK_PROJECTS_PROGRAM

Unique keys

	Name	Columns	Description
🔑	PROGRAMS_PK	PROGRAM_ID	

Uses

Name
▦ PROGRAMS
▦ DEPARTMENTS
▦ DICTIONARY
▦ PEOPLE

Used by

Name
▦ PROGRAMS
▦ PROJECTS

2.1.4. Table: PROJECT_ROLES

Columns

	Name	Data type	Description
🔑	PROJECT_ROLE_ID	NUMBER	
	PROJECT_ID	NUMBER	
	PERSON_ID	NUMBER	
	ROLE_TYPE_ID	NUMBER	
	NAME	VARCHAR2(50 BYTE)	
	VALID_FROM	DATE	
	VALID_TO	DATE	
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	
	MODIFIED_DATE	DATE	Default value: SYSDATE.
	MODIFIED_BY	NUMBER	

Links to

	Table	Join	Title / Name / Description
➤	PEOPLE	**PROJECT_ROLES.**PERSON_ID = PEOPLE.PERSON_ID	FK_PROJECT_ROLES_PERSON
➤	PROJECTS	**PROJECT_ROLES.**PROJECT_ID = PROJECTS.PROJECT_ID	FK_PROJECT_ROLES_PROJECT

Unique keys

	Name	Columns	Description
🔑	PROJECT_ROLES_PK	PROJECT_ROLE_ID	

Uses

Name
⊞ PROJECT_ROLES
⊞ PEOPLE
⊞ PROJECTS

Used by

Name
⊞ PROJECT_ROLES
▭ V_PEOPLE_ROLES

2.1.5. Table: PROJECTS

Table holds all projects carried out by a company. This includes:
- Contracts,
- Product development,
- R&D and,
- other internal projects.

Sources

New projects are created in following ways:
1. Projects form in Projects Management Application. Source = 'PMA'
2. Projects interface which is used to insert projects from:
    1. CRM for new contracts. Source = 'CRM'
    2. ERP/Maintenance module for facility maintenance projects. Source = 'MNT'
3. Migrated from old system prior to 2012 implementation of PMA. Source = 'OLD'

Lifecycle

Projects are regarder as open as long as they are not closed, i.e. in "CLOSED" status.

Calculations

Project begin:
Whichever is not null in this order: ACTUAL_BEGIN, EXPECTED_BEGIN, CREATED_DATE

Stadard criteria

Open projects
STATUS_ID -> DICTIONARY d
where d.LABEL not like 'Closed%'

Known issues
1. Projects before 2008 have most of descriptive fields blank or incorrect (e.g. manager, customer, market)
2. Project expected begin and end are rarely updated and expected begin can be in the past for long even if project still didn't start

Columns

	Name	Data type	Description
🔑	PROJECT_ID	NUMBER	Project system ID
	PROJECT_NUMBER	VARCHAR2(25 CHAR)	Project unique business number
	PROGRAM_ID	NUMBER	Program which project is part of. Ref: programs
	NAME	VARCHAR2(500 CHAR)	Project name
	DESCRIPTION	VARCHAR2(4000 CHAR)	Brief description of a project provided by project assistant or project manager
	OBJECTIVES	VARCHAR2(4000 CHAR)	Project objectives provided by project owner
	SCOPE	VARCHAR2(4000 CHAR)	Scope of work and deliverables provided by project owner
	TYPE_ID	NUMBER	Project type. Ref: dictionary
	STATUS_ID	NUMBER	Project status from the list
	ORG_ID (Organization)	NUMBER	Organization/department within company that owns project
	MNGR_ID (Project Manager)	NUMBER	Project manager. Ref: people
	EXPECTED_BEGIN	DATE	Expected begin date defined at project creation. Then updated till actual project start date is established.

Name	Data type	Description
EXPECTED_END	DATE	Expected end date defined at project creation. Then updated till actual project end date is established.
ACTUAL_BEGIN	DATE	Project begin date as defined in contract.
ACTUAL_END	DATE	Project end date as defined by contract until project is signed off, or project actual sign off date.
CUST_ID (Customer)	NUMBER	Customer for contracts, null for internal projects. Ref: companies
CUST_MNGR_ID (Customer Manager)	NUMBER	Customer manager for contracts, null for internal projects. Ref: people
CREATED_DATE	DATE	Row creation date in the database Default value: SYSDATE.
CREATED_BY	NUMBER	Login for person that created row with UI or "P/IFACE" for data coming from projects interface table
MODIFIED_DATE	DATE	Date row was last modified. Initially = creation_date Default value: SYSDATE.
MODIFIED_BY	NUMBER	Login for person that last modified row with UI. Null if row was not modified after creation.
GEOGRAPHY_ID (Market)	NUMBER	Contract market from the list. Ref: dictionary
SOURCE	VARCHAR2(10 BYTE)	Row source. 'PMA' for data enterd to main UI: Project Management Application. Other values come from interface table. 'CRM' for data from CRM.

Links to

	Table	Join	Title / Name / Description
✈	COMPANIES	**PROJECTS.**CUST_ID = COMPANIES.COMPANY_ID	FK_PROJECTS_CUSTOMER
✈	DEPARTMENTS	**PROJECTS.**ORG_ID = DEPARTMENTS.DEPARTMENT_ID	FK_PROJECTS_ORG
✈	DICTIONARY	**PROJECTS.**GEOGRAPHY_ID = DICTIONARY.DICT_VAL_ID	Market User-defined relation where DICT = 'GEOGRAPHY'
✈	DICTIONARY	**PROJECTS.**TYPE_ID = DICTIONARY.DICT_VAL_ID	Project Type FK_PROJECTS_TYPE where DICT = 'PROJECT'
✈	PEOPLE	**PROJECTS.**MNGR_ID = PEOPLE.PERSON_ID	FK_PROJECTS_MANAGER
✈	PEOPLE	**PROJECTS.**CUST_MNGR_ID = PEOPLE.PERSON_ID	FK_PROJECTS_CUST_MGR
✈	PROGRAMS	**PROJECTS.**PROGRAM_ID = PROGRAMS.PROGRAM_ID	FK_PROJECTS_PROGRAM
✈	STATUSES	**PROJECTS.**STATUS_ID = STATUSES.STATUS_ID	FK_PROJECTS_STATUS

Linked from

	Table	Join	Title / Name / Description
✈	ACTIVITIES	**PROJECTS.**PROJECT_ID = ACTIVITIES.PROJECT_ID	FK_ACTIVITIES_PROJECT
✈	PROJECT_ROLES	**PROJECTS.**PROJECT_ID = PROJECT_ROLES.PROJECT_ID	FK_PROJECT_ROLES_PROJECT

	Table	Join	Title / Name / Description
←	WBS	**PROJECTS.**PROJECT_ID = WBS.PROJECT_ID	FK_WBS_PROJECT

Unique keys

	Name	Columns	Description
🔑	PK_PROJECTS	PROJECT_ID	
🔑	Project name UK	PROJECT_NUMBER	Project number should be unique across company

Uses

Name
▦ **PROJECTS**
▦ COMPANIES
▦ DEPARTMENTS
▦ DICTIONARY
▦ DICTIONARY
▦ PEOPLE
▦ PEOPLE
▦ PROGRAMS
▦ STATUSES

Used by

Name
▦ **PROJECTS**
▦ ACTIVITIES
▦ PROJECT_ROLES
▦ WBS

2.1.6. Table: STATUSES

Columns

	Name	Data type	Description
🔑	STATUS_ID	NUMBER	
	NAME	VARCHAR2(100 BYTE)	
	IS_OPEN	CHAR(1 BYTE)	Default value: 'Y'.
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	
	MODIFIED_DATE	DATE	Default value: SYSDATE.
	MODIFIED_BY	NUMBER	

Linked from

	Table	Join	Title / Name / Description
⤎	ACTIVITIES	**STATUSES.**STATUS_ID = ACTIVITIES.STATUS_ID	FK_ACTIVITIES_STATUS
⤎	PROJECTS	**STATUSES.**STATUS_ID = PROJECTS.STATUS_ID	FK_PROJECTS_STATUS
⤎	WBS	**STATUSES.**STATUS_ID = WBS.STATUS_ID	FK_WBS_STATUS

Unique keys

	Name	Columns	Description
🔑	STATUSES_PK	STATUS_ID	

Used by

Name
▦ STATUSES
▦ ACTIVITIES
▦ PROJECTS
▦ WBS

2.1.7. Table: WBS

Columns

	Name	Data type	Description
🔑	WBS_ID	NUMBER	
	WBS_NO	VARCHAR2(50 CHAR)	
	PARENT_WBS_ID	NUMBER	
	NAME	VARCHAR2(150 CHAR)	
	PROJECT_ID	NUMBER	
	WBS_TYPE_ID	NUMBER	
	STATUS_ID	NUMBER	
	DESCRIPTION	VARCHAR2(4000 CHAR)	
	DELIVERABLES	VARCHAR2(4000 CHAR)	
	EXPECTED_BEGIN	DATE	
	EXPECTED_END	DATE	
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	
	MODIFIED_DATE	DATE	Default value: SYSDATE.
	MODIFIED_BY	NUMBER	

Links to

	Table	Join	Title / Name / Description
✈	DICTIONARY	**WBS.**WBS_TYPE_ID = DICTIONARY.DICT_VAL_ID	FK_WBS_TYPE where DICT = 'WBS'
✈	PROJECTS	**WBS.**PROJECT_ID = PROJECTS.PROJECT_ID	FK_WBS_PROJECT
✈	STATUSES	**WBS.**STATUS_ID = STATUSES.STATUS_ID	FK_WBS_STATUS
✈	WBS	**WBS.**PARENT_WBS_ID = WBS.WBS_ID	FK_WBS

Linked from

	Table	Join	Title / Name / Description
✦	WBS	**WBS.**WBS_ID = WBS.PARENT_WBS_ID	FK_WBS
✦	ACTIVITIES	**WBS.**WBS_ID = ACTIVITIES.WBS_ID	User-defined relation
✦	CST_PROJECT_COSTS	**WBS.**WBS_ID = CST_PROJECT_COSTS.WBS_ID	FK_CST_PROJECT_COSTS_WBS
✦	CST_PROJECT_TIME_LOG	**WBS.**WBS_ID = CST_PROJECT_TIME_LOG.WBS_ID	FK_CST_PROJECT_TIME_WBS

Unique keys

	Name	Columns	Description
🔑	PK_WBS	WBS_ID	

Uses

Name
▦ **WBS**
▦ DICTIONARY
▦ PROJECTS
▦ STATUSES
▦ WBS

Used by

Name
▦ **WBS**
▦ ACTIVITIES
▦ CST_PROJECT_COSTS
▦ CST_PROJECT_TIME_LOG
▦ WBS

3. Organization and HR
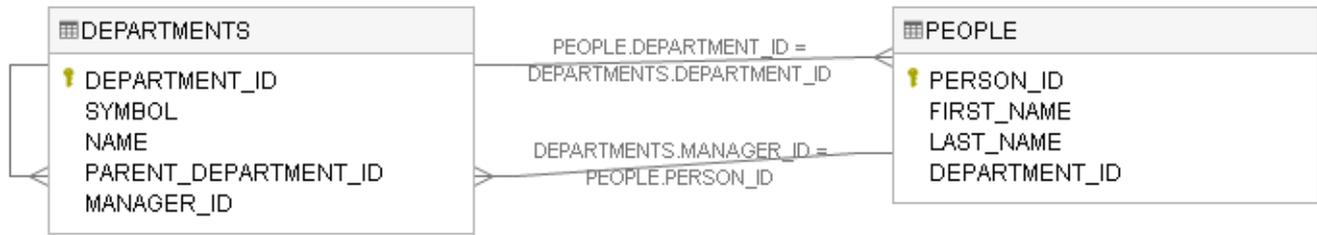
3.1. Tables

3.1.1. Table: COMPANIES

Companies table holds project cusomers and suppliers.

Columns

	Name	Data type	Description
🔑	COMPANY_ID	NUMBER	
	NAME	VARCHAR2(150 BYTE)	
	ADDRESS_1	VARCHAR2(500 BYTE)	
	ADDRESS_2	VARCHAR2(500 BYTE)	
	CITY	VARCHAR2(50 BYTE)	
	POSTAL_CODE	VARCHAR2(50 BYTE)	
	STATE	VARCHAR2(50 BYTE)	
	COUNTRY	VARCHAR2(50 BYTE)	
	PHONE	VARCHAR2(30 BYTE)	
	EMAIL	VARCHAR2(100 BYTE)	
	WEBSITE	VARCHAR2(100 BYTE)	
	COMPANY_TYPE_ID	NUMBER	
	INDUSTRY_ID	NUMBER	
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	
	MODIFIED_DATE	DATE	Default value: SYSDATE.
	MODIFIED_BY	NUMBER	

Linked from

	Table	Join	Title / Name / Description
←	ACTIVITIES	**COMPANIES**.COMPANY_ID = ACTIVITIES.ASSIGNED_TO_SUPPLIER_ID	FK_ACTIVITIES_SUPPLIER
←	CST_PROJECT_COSTS	**COMPANIES**.COMPANY_ID = CST_PROJECT_COSTS.SUPPLIER_ID	FK_CST_PROJECT_COSTS_SUPPLIER
←	PROJECTS	**COMPANIES**.COMPANY_ID = PROJECTS.CUST_ID	FK_PROJECTS_CUSTOMER

Unique keys

	Name	Columns	Description
🔑	COMPANIES_PK	COMPANY_ID	

Used by

Name
▦ COMPANIES
▦ ACTIVITIES
▦ CST_PROJECT_COSTS
▦ PROJECTS

3.1.2. Table: DEPARTMENTS

Departments table holds organizational hierariarchy - divisions, business units, departments and teams.

Columns

	Name	Data type	Description
🔑	DEPARTMENT_ID	NUMBER	
	SYMBOL	VARCHAR2(50 BYTE)	
	NAME	VARCHAR2(100 BYTE)	
	COST_CENTER_CODE	VARCHAR2(50 BYTE)	
	PARENT_DEPARTMENT_ID	NUMBER	
	MANAGER_ID	NUMBER	
	DEFAULT_COST_RATE	VARCHAR2(10 CHAR)	
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	
	MODIFIED_DATE	DATE	Default value: SYSDATE.
	MODIFIED_BY	NUMBER	

Links to

	Table	Join	Title / Name / Description
⤵	CST_HOURLY_RATES	**DEPARTMENTS.**DEFAULT_COST_RATE = CST_HOURLY_RATES.COST_RATE_CODE	User-defined relation
✈	DEPARTMENTS	**DEPARTMENTS.**PARENT_DEPARTMENT_ID = DEPARTMENTS.DEPARTMENT_ID	FK_DEPARTMENTS_PARENT
✈	PEOPLE	**DEPARTMENTS.**MANAGER_ID = PEOPLE.PERSON_ID	FK_DEPARTMENTS_MANAGER

Linked from

	Table	Join	Title / Name / Description
⤺	DEPARTMENTS	**DEPARTMENTS.**DEPARTMENT_ID = DEPARTMENTS.PARENT_DEPARTMENT_ID	FK_DEPARTMENTS_PARENT

	Table	Join	Title / Name / Description
⤙	ACTIVITIES	**DEPARTMENTS.**DEPARTMENT_ID = ACTIVITIES.ASSIGNED_TO_DEPARTMENT_ID	FK_ACTIVITIES_DEPARTMENT
⤙	CST_PROJECT_COSTS	**DEPARTMENTS.**DEPARTMENT_ID = CST_PROJECT_COSTS.DEPARTMENT_ID	FK_CST_PROJECT_COSTS_DEPT
⤙	CST_PROJECT_TIME_LOG	**DEPARTMENTS.**DEPARTMENT_ID = CST_PROJECT_TIME_LOG.DEPARTMENT_ID	FK_CST_PROJECT_TIME_DEPT
⤙	PEOPLE	**DEPARTMENTS.**DEPARTMENT_ID = PEOPLE.DEPARTMENT_ID	FK_PEOPLE_DEPARTMENT
⤙	PROGRAMS	**DEPARTMENTS.**DEPARTMENT_ID = PROGRAMS.DEPARTMENT_ID	FK_PROGRAMS_DEPARTMENT
⤙	PROJECTS	**DEPARTMENTS.**DEPARTMENT_ID = PROJECTS.ORG_ID	FK_PROJECTS_ORG

Unique keys

	Name	Columns	Description
🔑	DEPARTMENTS_PK	DEPARTMENT_ID	

Uses

Name
⊞ DEPARTMENTS
⊞ CST_HOURLY_RATES
⊞ DEPARTMENTS
⊞ PEOPLE

Used by

Name
⊞ DEPARTMENTS
▭ V_PEOPLE_ROLES
⊞ ACTIVITIES
⊞ CST_PROJECT_COSTS
⊞ CST_PROJECT_TIME_LOG
⊞ DEPARTMENTS
⊞ PEOPLE
⊞ PROGRAMS
⊞ PROJECTS

3.1.3. Table: PEOPLE

People table holds all peopple involved in projects - organization employees, contractors and customer employees.

Columns

	Name	Data type	Description
🔑	PERSON_ID	NUMBER	

Name	Data type	Description
FIRST_NAME	VARCHAR2(100 BYTE)	
MIDDLE_NAMES	VARCHAR2(100 BYTE)	
LAST_NAME	VARCHAR2(100 BYTE)	
AKA	VARCHAR2(50 BYTE)	
LANGUAGE	VARCHAR2(10 BYTE)	
NATIONALITY	VARCHAR2(10 BYTE)	
DATE_OF_BIRTH	DATE	
SEX	CHAR(1 BYTE)	
PHONE	VARCHAR2(80 BYTE)	
MOBILE	VARCHAR2(80 BYTE)	
EMAIL	VARCHAR2(100 BYTE)	
DEPARTMENT_ID	NUMBER	
COST_RATE	VARCHAR2(10 CHAR)	
CREATED_DATE	DATE	Default value: SYSDATE.
CREATED_BY	NUMBER	
MODIFIED_DATE	DATE	Default value: SYSDATE.
MODIFIED_BY	NUMBER	

Links to

	Table	Join	Title / Name / Description
➤	DEPARTMENTS	PEOPLE.DEPARTMENT_ID = DEPARTMENTS.DEPARTMENT_ID	FK_PEOPLE_DEPARTMENT

Linked from

	Table	Join	Title / Name / Description
◄	ACTIVITIES	PEOPLE.PERSON_ID = ACTIVITIES.ASSIGNED_TO_PERSON_ID	FK_ACTIVITIES_PERSON
◄	CST_PROJECT_TIME_LOG	PEOPLE.PERSON_ID = CST_PROJECT_TIME_LOG.PERSON_ID	FK_CST_PROJECT_TIME_PER
◄	DEPARTMENTS	PEOPLE.PERSON_ID = DEPARTMENTS.MANAGER_ID	FK_DEPARTMENTS_MANAGER
◄	PROGRAMS	PEOPLE.PERSON_ID = PROGRAMS.MANAGER_ID	FK_PROGRAMS_MANAGER
◄	PROJECT_ROLES	PEOPLE.PERSON_ID = PROJECT_ROLES.PERSON_ID	FK_PROJECT_ROLES_PERSON
◄	PROJECTS	PEOPLE.PERSON_ID = PROJECTS.MNGR_ID	FK_PROJECTS_MANAGER
◄	PROJECTS	PEOPLE.PERSON_ID = PROJECTS.CUST_MNGR_ID	FK_PROJECTS_CUST_MGR

Unique keys

	Name	Columns	Description
🔑	PEOPLE_PK	PERSON_ID	

	Name	Columns	Description
🔑	PEOPLE_UK1	PHONE	
🔑	PEOPLE_UK2	AKA	
🔑	UK_PEOPLE_NAME	FIRST_NAME, LAST_NAME	
🔑	UK_PEOPLE_NAME_DOB	LAST_NAME, DATE_OF_BIRTH	

Uses

Name
▦ **PEOPLE**
▦ DEPARTMENTS

Used by

Name
▦ **PEOPLE**
▭ V_PEOPLE_ROLES
▦ ACTIVITIES
▦ CST_PROJECT_TIME_LOG
▦ DEPARTMENTS
▦ PROGRAMS
▦ PROJECT_ROLES
▦ PROJECTS
▦ PROJECTS

4. Costs
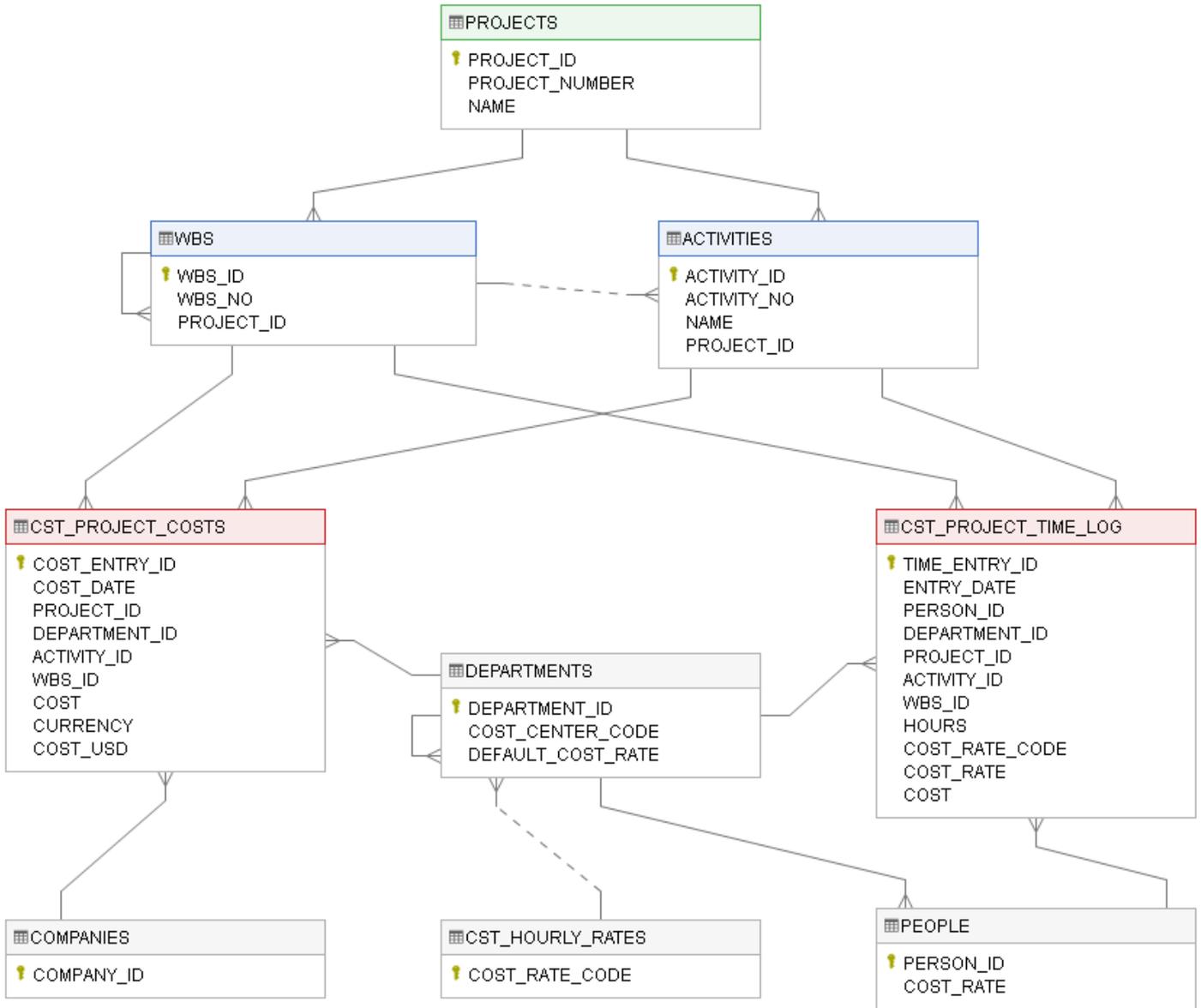
Project costs are tracked in two main logs:

1. CST_PROJECT_TIME_LOG - holds cost of labor of company employees
2. CST_PROJECT_COSTS - holds all other costs

4.1. Tables

4.1.1. Table: CST_HOURLY_RATES

Dictionary holding current hourly cost rates that are used to calculate cost of work performed by employees. Each department and employee has assigned one rate from the dictionary.

Columns

	Name	Data type	Description
🔑	COST_RATE_CODE	VARCHAR2(10 CHAR)	
	COST_RATE	NUMBER	
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	
	MODIFIED_DATE	DATE	Default value: sysdate.

Name	Data type	Description
MODIFIED_BY	NUMBER	

Linked from

Table	Join	Title / Name / Description
DEPARTMENTS	**CST_HOURLY_RATES.**COST_RATE_CODE = DEPARTMENTS.DEFAULT_COST_RATE	User-defined relation

Unique keys

Name	Columns	Description
PK_CST_HOURLY_RATES	COST_RATE_CODE	

Used by

Name
CST_HOURLY_RATES
DEPARTMENTS

4.1.2. Table: CST_PROJECT_COSTS

Table holds project costs, excluding work of company employees. Costs include: purchases of materials, third party services and all other expenses.

Columns

Name	Data type	Description
COST_ENTRY_ID	NUMBER	
COST_DATE	DATE	
PROJECT_ID	NUMBER	
DEPARTMENT_ID	NUMBER	
ACTIVITY_ID	NUMBER	
WBS_ID	NUMBER	
COST	NUMBER	
CURRENCY	NUMBER	
COST_USD	NUMBER	
STATUS	VARCHAR2(5 CHAR)	
SUPPLIER_ID	NUMBER	
DOCUMENT_NO	VARCHAR2(25 CHAR)	
DOCUMENT_DATE	DATE	
CREATED_DATE	DATE	Default value: SYSDATE.
CREATED_BY	NUMBER	
MODIFIED_DATE	DATE	Default value: SYSDATE.
MODIFIED_BY	NUMBER	

Links to

	Table	Join	Title / Name / Description
✈	ACTIVITIES	**CST_PROJECT_COSTS.**ACTIVITY_ID = ACTIVITIES.ACTIVITY_ID	FK_CST_PROJECT_COSTS_ACT
✈	COMPANIES	**CST_PROJECT_COSTS.**SUPPLIER_ID = COMPANIES.COMPANY_ID	FK_CST_PROJECT_COSTS_SUPPLIER
✈	DEPARTMENTS	**CST_PROJECT_COSTS.**DEPARTMENT_ID = DEPARTMENTS.DEPARTMENT_ID	FK_CST_PROJECT_COSTS_DEPT
✈	WBS	**CST_PROJECT_COSTS.**WBS_ID = WBS.WBS_ID	FK_CST_PROJECT_COSTS_WBS

Unique keys

	Name	Columns	Description
🔑	PK_CST_PROJECT_COSTS	COST_ENTRY_ID	

Uses

Name
▦ CST_PROJECT_COSTS
▦ ACTIVITIES
▦ COMPANIES
▦ DEPARTMENTS
▦ WBS

4.1.3. Table: CST_PROJECT_TIME_LOG

Table holds time spent on projects by company employees. Together with CST_PROJECT_COSTS this is a base for cost analysis.

Columns

	Name	Data type	Description
🔑	TIME_ENTRY_ID	NUMBER	
	ENTRY_DATE	DATE	
	PERSON_ID	NUMBER	
	DEPARTMENT_ID	NUMBER	
	PROJECT_ID	NUMBER	
	ACTIVITY_ID	NUMBER	
	WBS_ID	NUMBER	
	HOURS	NUMBER	
	COST_RATE_CODE	VARCHAR2(10 CHAR)	
	COST_RATE	NUMBER	
	COST	NUMBER	
	STATUS	VARCHAR2(5 CHAR)	
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	

Name	Data type	Description
MODIFIED_DATE	DATE	Default value: SYSDATE.
MODIFIED_BY	NUMBER	

Links to

	Table	Join	Title / Name / Description
✈	ACTIVITIES	**CST_PROJECT_TIME_LOG.**ACTIVITY_ID = ACTIVITIES.ACTIVITY_ID	FK_CST_PROJECT_TIME_ACT
✈	DEPARTMENTS	**CST_PROJECT_TIME_LOG.**DEPARTMENT_ID = DEPARTMENTS.DEPARTMENT_ID	FK_CST_PROJECT_TIME_DEPT
✈	PEOPLE	**CST_PROJECT_TIME_LOG.**PERSON_ID = PEOPLE.PERSON_ID	FK_CST_PROJECT_TIME_PER
✈	WBS	**CST_PROJECT_TIME_LOG.**WBS_ID = WBS.WBS_ID	FK_CST_PROJECT_TIME_WBS

Unique keys

	Name	Columns	Description
🔑	PK_CST_PROJECT_TIME_LOG	TIME_ENTRY_ID	

Uses

Name
▦ CST_PROJECT_TIME_LOG
▦ ACTIVITIES
▦ DEPARTMENTS
▦ PEOPLE
▦ WBS

5. Other

5.1. Tables

5.1.1. Table: DICTIONARY

Columns

	Name	Data type	Description
🔑	DICT_VAL_ID	NUMBER	
	DICT	VARCHAR2(50 BYTE)	
	LABEL	VARCHAR2(100 BYTE)	
	VALID_FROM	DATE	
	VALID_TO	DATE	
	CREATED_DATE	DATE	Default value: SYSDATE.
	CREATED_BY	NUMBER	
	MODIFIED_DATE	DATE	Default value: SYSDATE.
	MODIFIED_BY	NUMBER	

Linked from

	Table	Join	Title / Name / Description
⤺	ACTIVITIES	**DICTIONARY.**DICT_VAL_ID = ACTIVITIES.ACTIVITY_TYPE_ID	FK_ACTIVITIES_TYPE where DICT = 'ACTOVITY'
⤺	PROGRAMS	**DICTIONARY.**DICT_VAL_ID = PROGRAMS.PROGRAM_TYPE_ID	FK_PROGRAMS_TYPE where DICT = 'PROGRAM'
⤺	PROJECTS	**DICTIONARY.**DICT_VAL_ID = PROJECTS.GEOGRAPHY_ID	Market User-defined relation where DICT = 'GEOGRAPHY'
⤺	PROJECTS	**DICTIONARY.**DICT_VAL_ID = PROJECTS.TYPE_ID	Project Type FK_PROJECTS_TYPE where DICT = 'PROJECT'
⤺	WBS	**DICTIONARY.**DICT_VAL_ID = WBS.WBS_TYPE_ID	FK_WBS_TYPE where DICT = 'WBS'

Unique keys

	Name	Columns	Description
🔑	PK_DICTIONARY	DICTIONARY_VALUE_ID, DICT_VAL_ID	

Used by

Name
⊞ **DICTIONARY**
⊞ ACTIVITIES
⊞ PROGRAMS
⊞ PROJECTS
⊞ PROJECTS

Name
⊞ WBS

5.2. Views

5.2.1. View: V_PEOPLE_ROLES

Columns

Name	Data type	Description
PROJECT_ROLE_ID	NUMBER	
PROJECT_ID	NUMBER	
PERSON_ID	NUMBER	
ROLE_TYPE_ID	NUMBER	
ROLE_NAME	VARCHAR2(50 BYTE)	
PERSON_NAME	VARCHAR2(201 BYTE)	
DEPARTMENT_NAME	VARCHAR2(100 BYTE)	
VALID_FROM	DATE	
VALID_TO	DATE	
CREATED_DATE	DATE	
CREATED_BY	NUMBER	
MODIFIED_DATE	DATE	
MODIFIED_BY	NUMBER	

Uses

Name
▥ V_PEOPLE_ROLES
⊞ DEPARTMENTS
⊞ PEOPLE
⊞ PROJECT_ROLES