



PROJECT REPORT: ASSET MANAGEMENT SYSTEM

ER Diagram, Table schema, and interface wireframe

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Project scope

This project is about the asset management ERP system. Because asset has many type, so we focus on fixed asset management that has high value and effect to the enterprise.

Project's Application Property

- list of fixed asset in company
- depreciation calculation
- trading asset with vendor and client

Major user role

- Administrator: View, Insert, Update, Delete every table
- Employee
 - Manager: View, Insert, Update every table
 - Non-manager: View and edit every table related to client and insert new property
- Client: View all property and data to themselves.

Data Dictionary

* {fieldName} ({datatype}[{digits}]) : {Description}

1. AssetMain

- AssetID (varchar[8]) : ID of an asset (00000000 – zzzzzzzz). Asset ID สามารถแสดงรายละเอียดอย่างคร่าวๆของ asset ขึ้นนั้นๆได้ (ex. M0000012 – Machine ID 12)
- AssetName (varchar[50]) : Name of an asset.
- AsserNumber_Quantity (int[4] – 4 digit) : Number of that asset.
- AssetClass (varchar[10]) : Abbreviation of class of an asset (Main Category of an asset).
- PurchaseDate (date) : Purchase date of an asset.
- AcquisitionDate (date) : Acquire date of an asset. (วันที่ได้รับ asset นั้น)
- CapitalCost (int[10]) : Capital of an asset. (เงินลงทุนที่ใช้กับ asset นั้น)
- DepreciationType (varchar[2]) : Type of depreciation of an asset.
- UsefulLife (int[4]) : Expected useful lifespan of an asset .(ช่วงเวลาใช้งานที่คาดหวังเลยช่วงนี้ไปจะกำจัด asset ขึ้นนั้นทิ้ง)
- LocationID (varchar[8]) : ID of location of an asset.
- EmployeeID (int[8]) : ID of employee that response or hold an asset.
- VendorID (int[8]) : ID of vendor of an asset (ID คนขาย asset ขึ้นนั้น).
- Manufacturer (varchar[25]) : Manufacturer or brand of an asset.

2. AssetCategory

- AssetClass (varchar[10]) : Abbreviation of class of an asset. (Main Category of an asset ex. EQ_OF_SM = small office equipment หรือ EQ001001 = equipment type 1 size 1 หรืออื่นๆ)
- ClassDefinition (varchar[50]) : Definition of abbreviation of class + more details.
- TransactionType (varchar[10]) : Type of accounting transaction. (ประเภทของการลงบัญชี)
- DepreciationType (varchar[2]) : Type of depreciation of an asset.

3. AssetDepreciation

- AssetDepreciationID (int[8]) : Surrogate key
- AssetID (varchar[8]) : ID of an asset.
- PurchasePrice (int[10]) : Price(Cost) of an purchased asset.
- SalvageValue (int[10]) : Salvage Value of an asset. (มูลค่าซาก : มูลค่าของ asset เมื่อพ้น Useful Lifespan)
- DepreciationValue (int[10]) : Depreciation **per year** of an asset.
- DepreciationRatio (int[2]) : Depreciation rate of an asset (percentage).
- DepreciationType (varchar[2]) : Abbreviation of depreciation calculation type. (how we calculate depreciation for an asset)
- DepreciationArea (varchar[30]) : Type of depreciation of an asset. (ex tax, accounting, management, investment, etc)

4. AssetInnerLocation

- RunningNO (int[8]) : Surrogate key.
- LocationID (varchar[8]) : ID of location of an asset.
- AssetID (varchar[8]) : ID of an asset.
- InsideLocation (varchar[20]) : Department that an asset is located. (ตำแหน่งของ asset ในสถานที่นั้นๆ)

5. AssetLocation

- LocationID (varchar[8]) : ID of location of an asset. Asset location can briefly explain detail of the location.
- LocationName (varchar[50]) : Name of location of an asset. (เป็นตัว asset เองได้ในบางกรณี)
- LocationAddress (varchar[100]) : Address of location of an asset. (ที่อยู่ของ location ของ asset)

6. AssetLocationMovement

- MovementNO (int[8]) : Number(times) of movement – surrogate key.
- LocationID (varchar[8]) : Old location of an asset.
- NewLocationID (varchar[8]) : ID of new location of an asset. (one of locationID in AssetLocation Table)
- NewLocatoinName (carchar[50]) : new location name.
- TranferDate (date) : date that an asset is/was moved.
- EmployeeID (int[8]) : ID of employee that response/host to the movement of an asset.

7. AssetPurchase

- PurchaseID (int[8]) : ID of invoice of purchasing. (ID ที่ระบุการจัดซื้อครั้งนั้นๆ) – surrogate key.
- AssetID (varchar[8]) : ID of an asset.
- PurchaseDate (date) : Purchase date of an asset.
- PurchasePrice (int[10]) : Price(Cost) of a purchased asset.
- EmployeeID (int[8]) : ID of employee that response to the purchasing or buy an asset.
- VendorID (int[8]) : ID of vendor of an asset.

8. AsssetSold

- SoldID (int[8]) : ID of invoice of sale. (ID ที่ระบุการขายครั้งนั้นๆ) – surrogate key.
- AssetID (varchar[8]) : ID of an asset.
- SoldDate (date) : Sold date of an asset.
- SoldPrice (int[10]) : Selling price of an asset.
- EmployeeID (int[8]) : ID of employee that response to the sale process or sell an asset.
- ClientID (int[8]) : ID of client that buy an asset.

9. Client

- ClientID (int[8]) : ID of a client.
- FirstName (varchar[20]) : First name of a client.
- LastName (varchar[20]) : Last name of a client.
- Address (varchar[100]) : Address of a client.
- PhoneNO (int[10]) : Phone number of a client.
- Email (varchar[20]) : Email address of a client. (Can be NULL)
- CompanyID (int[8]) : ID of a client's company. (Can be NULL)
- RoleID (int[2]) : ID of role level. (ID ระบุระดับหน้าที่ตำแหน่งและการเข้าถึงข้อมูล)

10. ContactedCompany

- CompanyID (int[8]) : ID of a contacted company.
- CompanyName (varchar[50]) : Name of a contacted company.
- CompanyAddress (varchar[100]) : Address of a contacted company.
- CompanyPhoneNO (int[10]) : Phone number of a contacted company.
- CompanyFaxNp (varchar[15]) : Fax number of a contacted company. (Can be NULL)
- CompanyEmail (varchar[20]) : Email address of a contacted company. (Can be NULL)
- SeondaryPhoneNO (int[10]) : Second phone number of a contacted company. (Can be NULL)

11. DepreciationKey

- DepreciationType (varchar[2]) : Abbreviation of depreciation calculation type.
(how we calculate depreciation for an asset)
- DepreciationDef (varchar[100]) : Definition and detail of Abbreviation of depreciation calculation type.
- DepreciationMethod (varchar[50]) : Depreciation method. (Straight Line, Double-Declining Balance, etc.) (สมการที่ใช้ในการคำนวณค่า Depreciation)
- DepreciationConstraint (varchar[100]) : Constraint of depreciation calculation.
(เงื่อนไขการคำนวณ Depreciation)

12. Employee

- Employee (int[8]) : ID of an employee.
- FirstName (varchar[20]) : First name of an employee.
- LastName (varchar[20]) : Last name of an employee.
- Address (varchar[100]) : Address of an employee.
- PhoneNO (int[10]) : Phone number of an employee.
- Email (varchar[30]) : Email address of an employee.
- RoleID (int[2]) : ID of role level. (ID ระบุระดับหน้าที่ตำแหน่งและการเข้าถึงข้อมูล)

13. RoleAndPermission

- RoleID (int[2]) : ID of role level that identify position and permission level.
- RoleName (varchar[30]) : Role name. (position name)
- PermissionLevel (int[1]) : Level of permission of user to access the database.
(client, common_employee, CEO, admin)

14. Vendor

- VendorID (int[8]) : ID of a vendor
- FirstName (varchar[20]) : First name of a vendor.
- LastName (varchar[20]) : Last name of a vendor.
- CompanyID (int[8]) : ID of a vendor's company. (Can be NULL)
- VendorPhoneNO (int[10]) : Phone number of a vendor.
- VendorEmail (varchar[30]) : Email address of a vendor.
- BuyLocation (varchar[50]) : Trading location and address. (Can be NULL)