District 區域

Key	Attribute	Data Type	NN	Comments
PK	distNo	Varchar(5)	YES	Primary key which is *generated by system*. Format is DST01, DST02 etc.
	distName	Varchar(30)	YES	*Valid values are* : HK Island, Kowloon, New Territories

Category 類別

Key	Attribute	Data Type	NN	Comments
PK	catNo	Varchar(5)	YES	Primary key which is *generated by system*. Format is CAT01, CAT02 etc.
	catName	Varchar(30)	YES	Name of the category. E.g. Computer Equipment, Hard Disk, SATA Hard Disk.
FK	catParent	Varchar(5)	NO	The category of the subcategory belongs to. E.g. CAT03 (Hard Disk) is a subcategory of CAT01 (Computer Equipment). Then fill in CAT03 in catNo, and fill in CAT01 in catParent. *catParent is null* if it is not a subcategory of another category.

Supplier 供應商

Key	Attribute	Data Type	NN	Comments
PK	suppNo	Varchar(5)	YES	Primary key which is *generated by system*. Format is S0001, S0002 etc.
	suppName	Varchar(30)	YES	Full name of the company (supplier). E.g. Trendy Shoes Mega Shop.
	suppTel	Varchar(12)	NO	Office phone no. of the company (supplier). May include optional country code "nnn-", e.g. 852-
	suppAddr	Varchar(60)	YES	Complete address of the supplier which includes the district (HK Island/Kowloon/New Territories). E.g. 7B, Block A, Happy Garden, 20 Nathan Road, Kowloon.

Customer 顧客

Key	Attribute	Data Type	NN	Comments
PK	custNo	Varchar(5)	YES	Primary key which is *generated by system*. Format is C0001, C0002 etc.
	custName	Varchar(30)	YES	Full name of the customer. E.g. Chan Tai Man
	custGender	Varchar(1)	YES	*Valid values* are : M, F
	custDOB	Date	NO	Birthdate of the customer.
	custTel	Varchar(12)	NO	Contact phone no. of the customer. May include optional country code "nnn-", e.g. 852-
	custAddr	Varchar(60)	YES	Customer's residental address which excludes the district (HK Island/Kowloon/New Territories). E.g. 7B, Block A, Happy Garden, 20 Nathan Road.
FK	distNo	Varchar(5)	YES	Foreign key which indicates the district of the customer's residential address.

Admin 管理員

Key	Attribute	Data Type	NN	Comments
PK	adminNo	Varchar(5)	YES	Primary key. Format is A0001, A0002 etc. You should *manually create at least one record* in this table.

Key	Attribute	Data Type	NN	Comments
	adminTel	Varchar(12)	NO	Office phone no. of the administrator. May include optional country code "(nnn)-", e.g. 852-

Driver 司機

Key	Attribute	Data Type	NN	Comments
PK	drvID	Varchar(5)	YES	Primary key which is *generated by system*. Format is D0001, D0002 etc.
	drvName	Varchar(30)	YES	Full name of the truck driver. E.g. Chan Tai Man
	drvGender	Varchar(1)	YES	*Valid values* are : M, F

User 用戶

Key	Attribute	Data Type	NN	Comments
PK	userNo	Varchar(5)	YES	Primary key which is *generated by system*. Format is U0001, U0002 etc.
	loginName	Varchar(30)	YES	Username used for login. *It must be unique* and it *can be changed by the user*. The value is "*admin*" for the site administrator.
	loginPswd	Varchar(30)	YES	Password used for login. The value is "*secret*" for the site administrator.
	isLoggedIn	Varchar(1)	YES	The value is 'Y" when *logged in*, and is 'N' when *logged out*.
FK	drvID	Varchar(5)	NO	Foreign key which is not null if this record refers to a driver. Also a record should be added in Driver table before the corresponding record is added in the User table.
FK	custNo	Varchar(5)	NO	Foreign key which is not null if this record refers to a customer. Also a record should be added in Customer table before the corresponding record is added in the User table.
FK	suppNo	Varchar(5)	NO	Foreign key which is not null if this record refers to a supplier. Also a record should be added in Supplier table before the corresponding record is added in the User table.
FK	adminNo	Varchar(5)	NO	Foreign key which is not null if this record refers to an administrator. Also a record should be added in Admin table before the corresponding record is added in the User table.

Product 產品

Key	Attribute	Data Type	NN	Comments
PK	prodNo	Varchar(5)	YES	Primary key which is *generated by system*. Format is P0001, P0002 etc.
	prodName	Varchar(30)	YES	Full name of the product.
	prodPrice	Double(8,2)	YES	Price per unit of the product. This *value must be > 0*.
	prodPhoto	Varchar(30)	YES	It is the partial or complete *filename of the image file* of the product.
	stockQty	Int	YES	It is the *available quantity* can be ordered by customers. *Decrease this value by the order quantity* when a OrderLine record is created. This *value must not be negative*.
FK	catNo	Varchar(5)	NO	*The value is null if the product cannot be categorized* 不能被歸

Key	Attribute	Data Type	NN	Comments
				類, otherwise it stores the value which represents its category.
FK	suppNo	Varchar(5)	YES	It shows which supplier provides the product information to the system.

CustOrder 客戶訂單

Key	Attribute	Data Type	NN	Comments
PK	ordNo	Varchar(5)	YES	Primary key which is *generated by system*. Format is OR001, OR002 etc.
	ordDate	Date	YES	The date the order is finally created by the customer. The ordDate *must be the current system date*.
	ordDiscount	Double(8,2)	NO	The *value is either 0 or 10* (which means 10% discount will be given *if the total order amount* (before discount) *is > $1000*).
	deliAddr	Varchar(60)	YES	The location where the ordered products will be delivered to. The delivery address should exclude the district (HK Island/Kowloon/New Territories). E.g. 7B, Block A, Happy Garden, 20 Nathan Road. The deliAddr & distNo values *can be same or different* to custAddr & distNo values of the Customer table.
FK	custNo	Varchar(5)	YES	The customer who creates this order.
FK	distNo	Varchar(5)	YES	The district where the ordered products will be delivered to.
FK	jobNo	Varchar(5)	NO	It is *null if no truck driver can deliver* the products of this order, otherwise stores the corresponding jobNo found in the Schedule table.

OrderLine

Key	Attribute	Data Type	NN	Comments
PFK	prodNo	Varchar(5)	YES	Foreign key. The product is being ordered.
PFK	ordNo	Varchar(5)	YES	Foreign key. The CustOrder record this OrderLine record belongs to.
	actualPrice	Double(8,2)	YES	actualPrice=(1-ordDiscount%) x prodPrice.
	qty	Int	YES	It is the order quantity which *must be > 0* and less than or equal to the corresponding stockQty before this OrderLine record is created.

Schedule 時間表

Key	Attribute	Data Type	NN	Comments
PK	jobNo	Varchar(5)	YES	Primary key which is *generated by system*. Format is J0001, J0002 etc. *If the jobNo of this record is not assigned to any CustOrder record*, this Schedule record can be *deleted* or the *jobDate & distNo can be changed*.
	jobDate	Date	YES	The date a truck driver is *willing to work*. When this record is created, this value must be *at least 2 days after the current system date*.
FK	drvID	Varchar(5)	YES	Each truck driver *can only choose one district to serve for each day*. Thus, jobDate+drvID *must be unique*.
FK	distNo	Varchar(5)	YES	The district where the truck driver is *willing to deliver* the products.