

HOMEWORK 4

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Yuji Shimojo

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Instructor: Denton Guy-Williams

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Question

Choose Oracle datatypes for the following attributes from a normalized relation including:

Vendor (VendorID, Address, ContactName)

Item (ItemID, Description)

PriceQuote (VendorID, ItemID, Price)

Describe why you selected the datatypes for each attribute.

Table Information and Entity-relationship Diagram

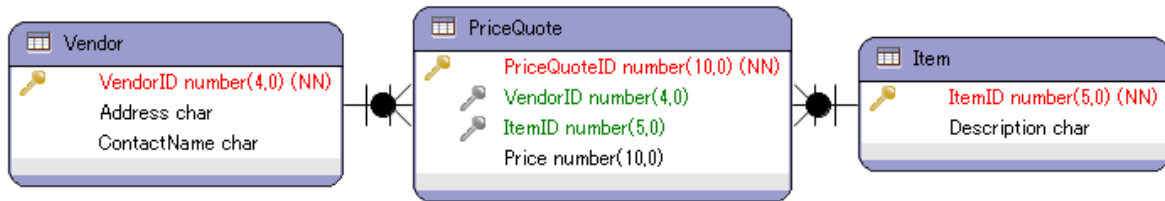
I chose datatypes for each attribute as shown in Table 1 below, and I created the E-R diagram as shown in Entity-relationship Diagram 1.

Table 1

Table name	Column name	Type	PK	FK
Item	ItemID	number(5,0)	*	
	Description	char		
PriceQuote	PriceQuoteID	number(10,0)	*	
	VendorID	number(4,0)		-> Vendor.VendorID
	ItemID	number(5,0)		-> Item.ItemID
	Price	number(10,0)		
Vendor	VendorID	number(4,0)	*	
	Address	char		
	ContactName	char		

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Entity-relationship Diagram 1



Because the maximum size of char type is 2,000 bytes, its length is enough for Item.Description, Vendor.Address, and Vendor.ContactName

The reason why the digit number of ItemID is larger than VendorID is that a single vendor might produce multiple items. Likewise, the digit number of PriceQuoteID is supposed to be the largest since the PriceQuote table relates to the Vendor table and the Item table in one-to-many relationships.