**Relation: Department**

Attribute: DepCode Domain: alpha[4]

Attribute: DepName Domain: alpha[20]

~~Attribute: Type Domain: {‘Retail’, ‘Administrative’} NOT NULL~~

Primary key: DepCode

**Relation: Administrative**

Attribute: DepCode Domain: alpha[4]

Attribute: DepName Domain: alpha[20]

Primary key: DepCode

Foreign key: DepCode References: attribute DepCode in relation Department

**Relation: Retail**

Attribute: DepCode Domain: alpha[4]

Attribute: DepName Domain: alpha[20]

Primary key: DepCode

Foreign key: DepCode References: attribute DepCode in relation Department

**Relation: Employee**

Attribute: EmID Domain: digit[6]

Attribute: EmName Domain: alpha[30]

Attribute: Skill Domain: alpha[30]

Attribute: Assign\_DepCode Domain: alpha[4] NOT NULL

Attribute: Manage\_DepCode Domain: alpha[4]

Primary key: EmID, Skill

Foreign key: Assign\_DepCode References: attribute DepCode in relation Deparment

Foreign key: Manage\_DepCode References: attribute DepCode in relation Administrative

**Relation: Items**

Attribute: ItemNumber Domain: digit[6]

Attribute: ItemName Domain: alpha[30]

Attribute: Description Domain: alpha[120]

Attribute: Price Domain: X = {x| x is Real Number & x >= 0}

Attribute: Quantity Domain: X = {x| x is integer & x >= 0}

Attribute: ShippingCost Domain: X = {x| x is Real Number & x >= 0}

Attribute: Retail\_DepCode Domain: alpha[4] NOT NULL

Primary key: ItemNumber

Foreign key: Retail\_DepCode References: attribute DepCode in relation Retail

**Relation: Supplier**

Attribute: SupCode Domain: digit[6]

Attribute: SupName Domain: alpha[30]

Attribute: Location Domain: alpha[30]

Primary key: SupCode

**Relation: canSupply**

Attribute: Cost Domain: X = {x| x is Real Number & x >= 0}

Attribute: SupCode Domain: digit[6]

Attribute: ItemNum Domain: digit[6]

Primary key: SupCode, ItemNum

Foreign key: SupCode References: attribute SupCode in relation Supplier

Foreign key: ItemNum References: attribute ItemNum in relation Items

**Relation: Procurement**

Attribute: TransNum Domain: digit[5]

Attribute: Date Domain: char[20]

Attribute: Quantity Domain: X = {x| x is integer & x >= 0}

Attribute: SupCode Domain: digit[6]

Attribute: ItemNum Domain: digit[6]

Primary key: TransNum, ~~SupCode, ItemNum~~

Foreign key: SupCode References: attribute SupCode in relation Supplier

Foreign key: ItemNum References: attribute ItemNum in relation Items

**Relation: Customer**

Attribute: Name Domain: alpha[30]

Attribute: CusID Domain: digit[6]

Attribute: Address Domain: char[50]

Primary key: CusID

**Relation: CreditCard**

Attribute: Number Domain: digit[20]

Attribute: Type Domain: alpha[10]

Attribute: Expiration Domain: digit[4]

Attribute: Limit Domain: X = {x| x is Real Number & x >= 0}

Primary key: Number

**Relation: CardOwner**

Attribute: CusID Domain: digit[6]

Attribute: CardNum Domain: digit[20]

Primary key: CusID, CardNum

Foreign key: CusID References: attribute CusID in relation Customer

Foreign key: CardNum References: attribute Number in relation CreditCard

**Relation: Purchase**

Attribute: ItemNum Domain: digit[6]

Attribute: CusID Domain: digit[6]

Attribute: Date Domain: char[20]

Attribute: Quantity Domain: X = {x| x is integer & x >= 0}

Attribute: CardNum Domain: digit[20]

Primary key: CardNum, CusID, Date

~~Foreign key: CardNum References: attribute Number in relation CreditCard~~

~~Foreign key: CusID References: attribute CusID in relation Customer~~

Foreign Key: (CusID, CardNum) References: attribute (CusID, CardNum) in relation CardOwner

Foreign key: ItemNum References: attribute ItemNum in relation Items