Tutorial 06: Domain Model Class Diagram

Given the below scenario of Pergola Man, complete the following tasks:
1. Identify the objects.
2. Identify the relationship between objects.
3. Draw the domain model class diagram

The Pergola Man operates in the northern suburbs of Perth, building pergolas and gazebos for private customers. When a customer approaches him, he visits their house, takes measurements and then discusses possible pergolas or gazebos which might interest the customer. As a result of this discussion, the Pergola Man sends the customer a detailed quotation (see below). The customer may or may not accept the quotation. In due course the customer is sent an invoice for the work done. The Pergola Man allows part-payments over six months in order to encourage more business.

The Pergola Man is considering creating a website as a means of attracting new customers. He anticipates the website will allow customers to browse examples of his work, browse company details including likely prices and timescales, email him with a request for a visit and permit (part-)payment of invoices.

Quotation   **The Pergola Man**

Customer-no:	1234	Quotation-no: 1
Customer-name:	A Punter	
Customer-address:	100 Wanneroo Road	

Construction-type: "P"
Construction-description: Pergola

Materials:

Mat-no	Description	No-off	Unit-cost	Cost
WP-2000	Wooden Post 2m x 200cm x 20cm	8	40	320
JT-3000	Wooden Joist 3m x 20cm x 20cm	6	50	300
PS-3000	Plastic Sheeting 3m x 1m	8	25	200
MT-STD	Mountings	10	5	80
				----
			sub total	900

Labour:

No-hours	Rate	
40	20	800
		----
	total	1700

A UML class diagram containing the following classes and attributes:

Payment
- paymentNumber {key}
- invoiceNumber {key}
- accountNumber
- date
- transactionType
- amount

ConstructionType
- constructionType {key}
- description

Invoice
- invoiceNumber {key}
- customerNumber
- constructionType
- totalAmount

InvoiceLine
- invoiceNumber {key}
- lineNumber {key}
- materialNumber
- quantity
- unitPrice

CustomerAccount
- accountNumber {key}
- totalBilled
- totalPaid
- balance

Query
- queryNumber {key}
- customerNum
- date
- time
- message

Customer
- customerNumber {key}
- firstName
- lastName
- street
- suburb
- state
- postcode
- phone
- email

Visit
- visitNumber {key}
- date
- time

Supplier
- supplierNumber {key}
- supplierName
- address
- phone
- email

Material
- materialNumber {key}
- material
- description
- price
- supplierNumber

QuoteLine
- quoteNumber {key}
- lineNumber {key}
- materialNumber
- quantity
- unitPrice

Quote
- quoteNumber {key}
- customerNum
- constructionType
- totalAmount