Chapter 11
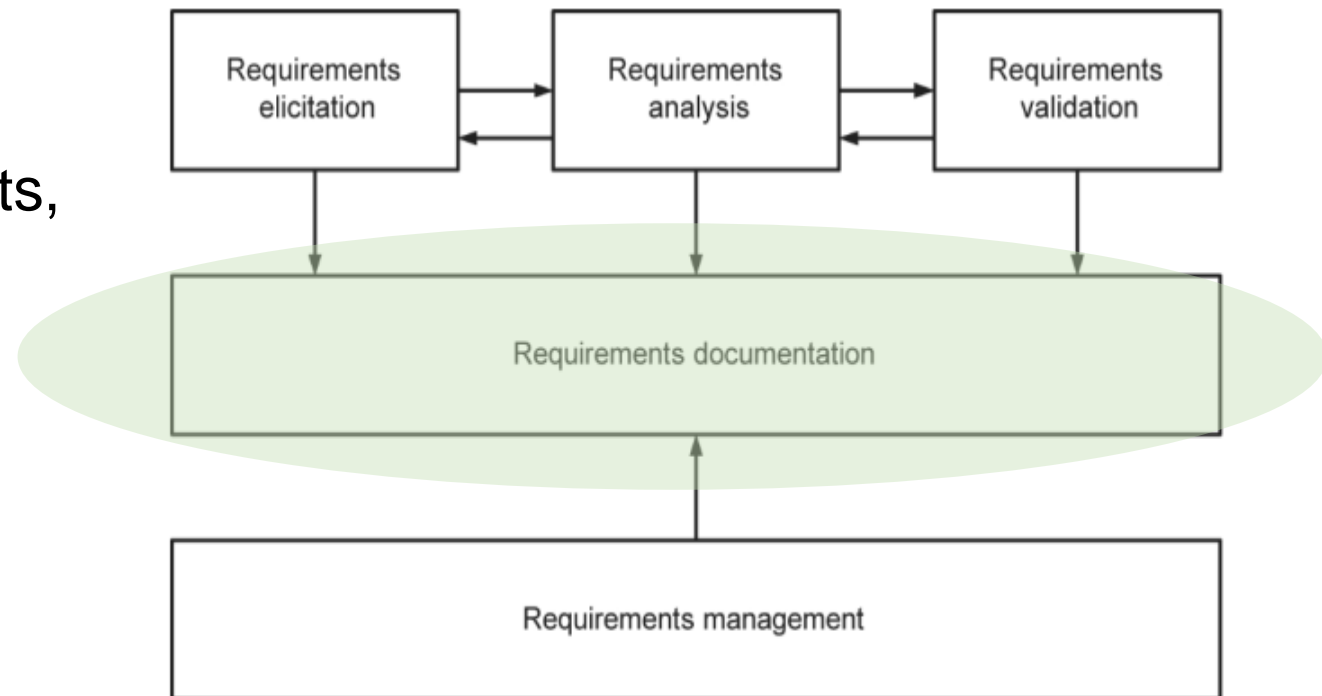# Documenting and modelling requirements

BCS Foundation Certificate in Business Analysis

Courseware

Documenting and managing requirements

Requirements documentation: This stage is concerned with producing narrative and diagrammatic definitions of the requirements, at varying levels of accuracy and completeness.

Business Analysis (4th Edition) Figure 10.1

Documentation styles

- There are various ways in which requirements may be recorded. Some are **narrative** techniques while others are **diagrammatic.**

Requirements catalogue

Requirement identifier	**Stakeholders**
Requirement name	**Associated non-functional requirements**
Requirement description	**Acceptance criteria**
Source	**Related requirements**
Owner	**Related documents**
Author	**Comments**
Type of requirement	**Rationale**
Priority	**Resolution**
Business area	**Version history**

User stories

- User stories tend to be used when a project is applying an Agile software development approach, although this is not necessarily the case as they offer a useful approach for discussing requirements.

- They define, in outline, the features actors require from a system.

- They are written from an actor, or user role, perspective and set out what is required by an individual or group.

User stories

 As a … (who is the user role or actor?)

I want … (what capability or feature is needed by the user role?)

so that … (why is the user story beneficial to the user role?)

User stories

Name: View order   Business Analysis (4th Edition) Chapter 11

As a registered customer

I want to view the orders I have placed for products

So that I can track when the products will be delivered

Priority: Should have

Story points: 8

Confirmations:

- Only registered customers are able to view orders
- Each registered customer can view orders they have placed
- Only orders placed by the registered customer will be displayed
- Information about product location will be displayed for orders not yet fulfilled
- The delivery date will be displayed for all products that have been delivered

Documentation styles – User stories

- User stories can be extremely complex or contain compound requirements.

- Where this is the case, they are often referred to as 'epics' and each epic may be decomposed into several individual user stories. It is helpful to do this as it is more straightforward to prioritise, analyse, explore and develop the decomposed user stories.
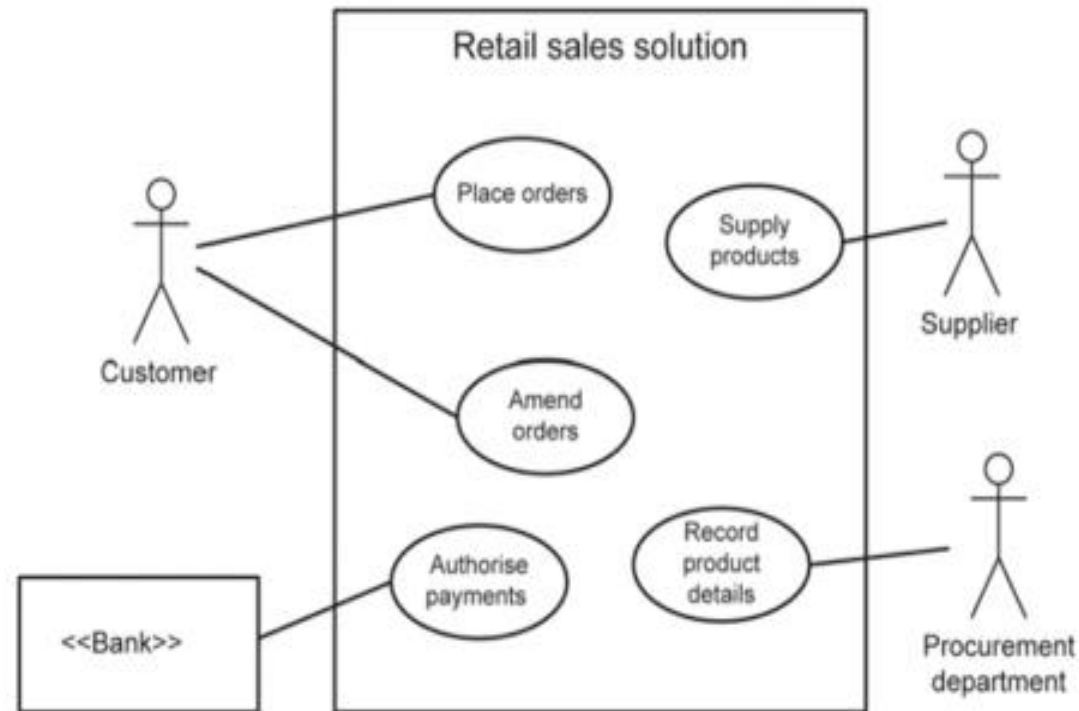

Business Analysis (4th Edition) Figure 8.2 (© Assist Knowledge Development Ltd.)

Use case diagram

- Use case models provide a **diagrammatic representation of the actors who will engage with the system and the features the actors need to access**.

- They are very effective for improving understanding of **functional requirements**.

Business Analysis (4th Edition) Figure 11.2

Context diagram

This initial diagram is known as a 'context diagram' and it has many uses in that it provides:
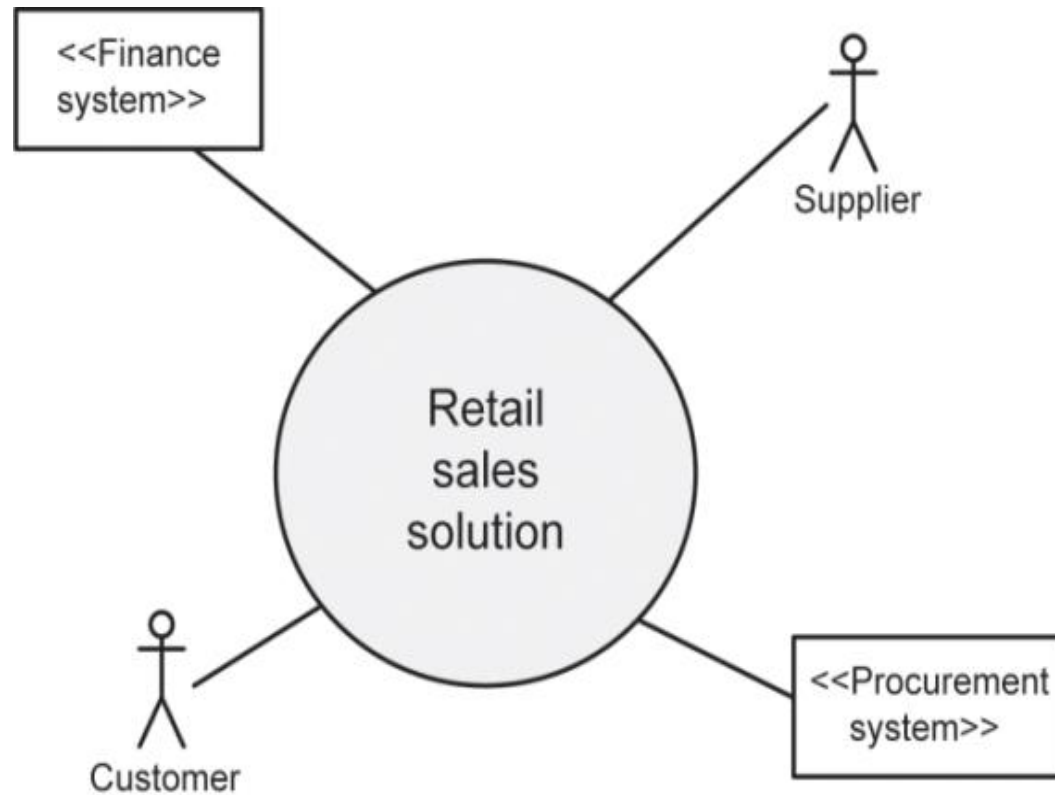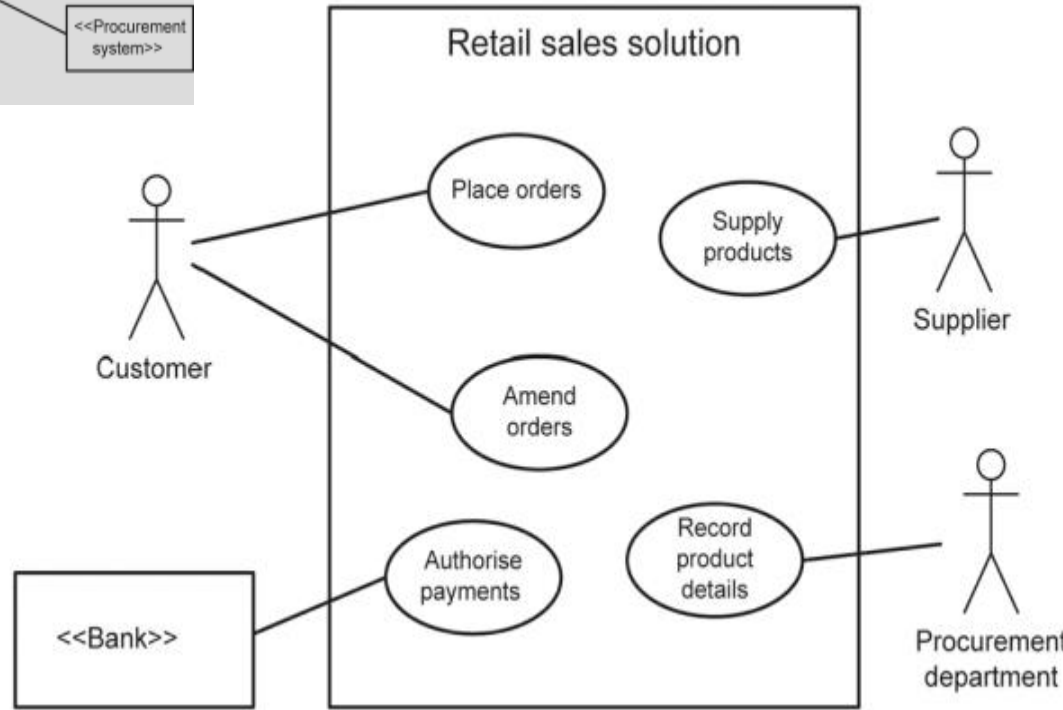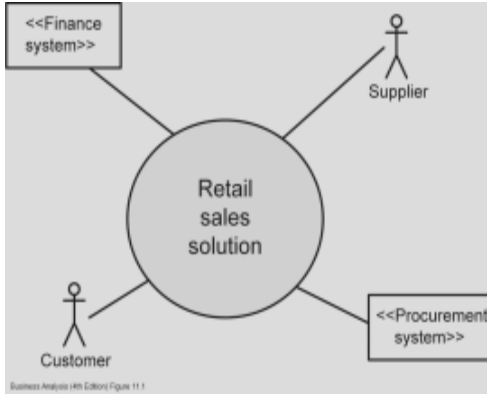

Business Analysis (4th Edition) Figure 11.1

A statement of where the solution fits within an organisation and the wider business context.	**An initial view of the scope of a solution by defining the actors and their interactions with it.**
A means of exploring each of the major interactions with the solution.	**A basis for identifying the individual use cases to be available to the actors..**

Use case diagram

Business Analysis (4th Edition) Figure 11.1

Business Analysis (4th Edition) Figure 11.2

The context diagram is developed into a business use case diagram.

A business use case diagram shows the set of features that stakeholders require from a solution.

Each individual use case represents a particular feature that an actor wishes to undertake through interacting with a solution.

Class model

- Class modelling from UML is a data modelling technique.

- A **class** is a set of attributes that collectively describe something of interest to a system.

- A **class model** is a graphic representation of all of the classes in a business system and their associations with each other.

- An Entity Relationship Diagram (ERD) is an alternative data modelling technique.

Business Analysis (4th Edition) Figure 11.20 (© Assist Knowledge Development Ltd.)
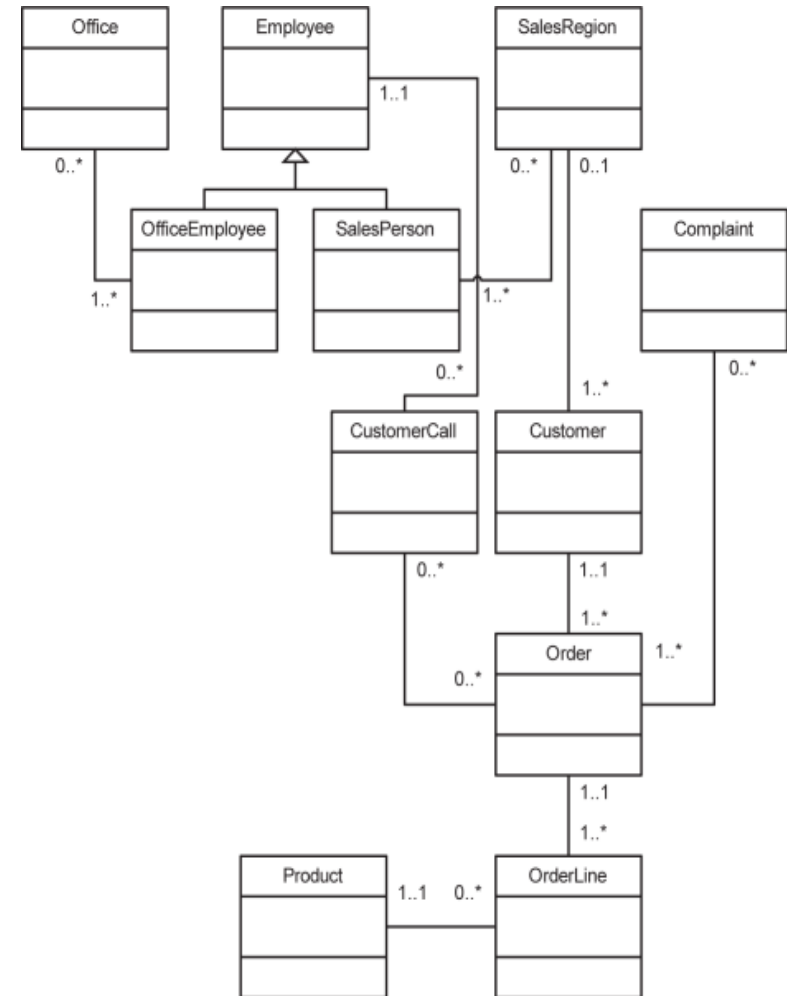
The product backlog in an agile environment

A helpful approach is to develop:

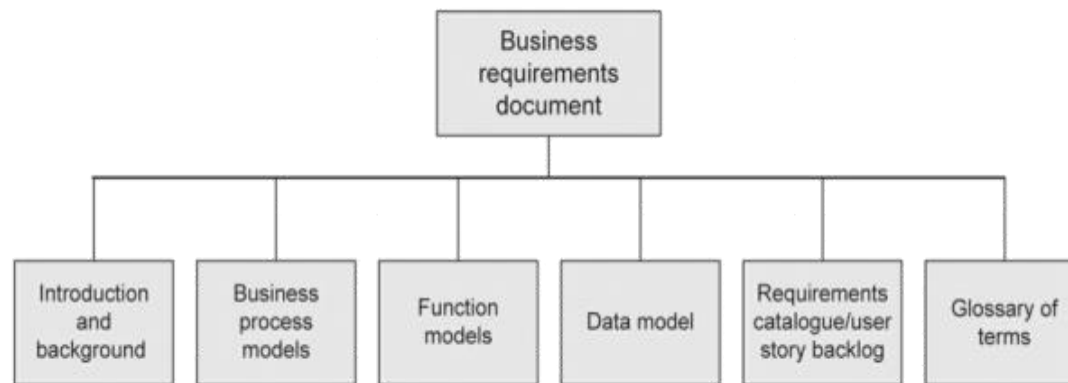|		
An initial set of general and technical requirements, possibly using elements of the requirements catalogue template.	**A context diagram to represent the place of the solution within the business context.**	**A use case diagram** with business staff to offer a clear view of the overall scope of the solution and its required features.
A backlog of user stories through consulting the actors on the use case diagram to develop the user stories they would like the solution to fulfil.	**Outline definitions of non-functional requirements** that require further exploration. Where they apply to the entire project, such as usability requirements, one definition – possibly using the requirements catalogue template – may be developed for each non-functional requirement that can then be applied across all development activity.	**A data model to ensure the data requirements are represented in an effective way.**

The business requirements document

In some situations, a BRD is required to define what should be delivered.
The content of a BRD varies from organisation to organisation and project to project.

Typically, a BRD is produced when a linear approach has been decided upon for a particular project; however, this is not necessarily the case, as it can be helpful to produce a document that brings together different artefacts as part of the initiation of a project.

The style, depth and nature of the artefacts should reflect the project context and be sufficient to meet the needs of the project.

Business Analysis (4th Edition) Figure 11.29