Use Case Diagrams – Diagnostic test

1. During which phase of the problem solving methodology are UCDs produced?

2. What is the main information given in a UCD?

3. Draw an actor 🡪

4. Which of these **cannot** be an actor: another organisation; a database that is **not** in the system being described; a database that **is** in the system being described; a human.

5. What shape is used to display a use case?

6. What is wrong with this use case? *Create invoice and email it to customer.*

7. An association line connects which two components in an UCD?

8. If an association line has an arrowhead, what does it mean?

9. Data flows along a UCD association line are:

A. Always one-way.  
 B. Always named.  
 C. Better shown in a DFD.  
 D. Not allowed between external entities.

10. In a UCD, the following actors were named: Secretary, Tax Department, Mr Smithers, Customers. Suggest **two** changes that should be made to the names.

11. What is the purpose of a boundary box?

12. How does a UCD help make the scope of software clear?

13. A piece of software is planned for an online book seller. The customers can order books online from a webpage or via email. The sales rep uses the software to handle the order. If the books are out of stock, the software should automatically re-order them from the publisher. The accounts department uses the software to create an invoice for the sale and send it to the customer. The books are then posted to the customer. Represent this software below in a UCD.

Use Case Diagrams – Test solution

1. Analysis.

2. The functional requirements of software.

3. 

4. a database that **is** in the system being described. (Anything that is part of the system appears within the boundary box and cannot be outside of the system)

5. A circle, or ellipse

6. It should be divided into two use cases: *Create invoice. Email it to customer.*

7. An actor and a use case.

8. The actor can initiate the use case.

9. Data flows along a UCD association line are… C. Better shown in a DFD.

10. Mr Smithers should be changed to his role (e.g. Boss). Customers should become ‘Customer’.

11. To enclose all the use cases.

12. If a use case is not there, it is clear that the software is not expected to have that functionality.

13. 