

NAME: MUHAMMAD USMAN Khan

ID NO: 15038

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Q1)

Answer:

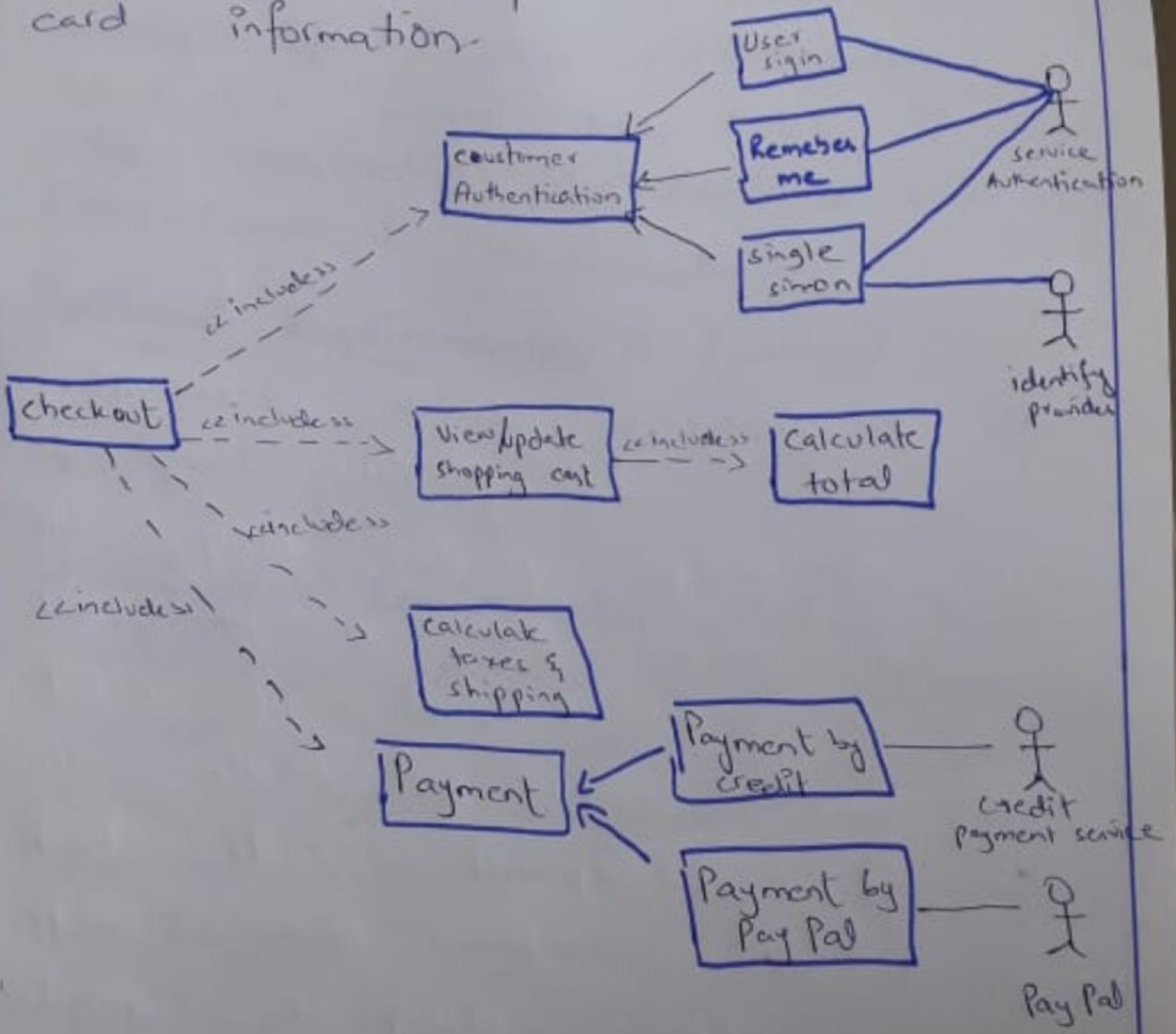
The pizza ordering system

The pizza ordering system allows the user of a web browser to order pizza for home delivery to place an order a shopper searches to find items to purchase ads, items one at a time to find items to purchase ads, items one at a time to a shopping cart and possibly searches again for more items. When all items have been chosen, the shopper provides a delivery addresses. If not paying with cash,

UML Use Case Diagram - New York NY

the shopper also provides a credit card information

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Q2 suggest how an engineer responsible for drawing up a system requirements specification might keep track of the relationship b/w functional and non-functional requirements?

Ans Functional Requirements:- A functional requirement defines a system or its components

Non-functional Requirements:- defines the performance attribute of a software system.

- Some typical functional and non-functional requirements are following:-
- Non-functional requirements
- Performance
- scalability
- capacity
- Availability
- Reliability
- Recoverability
- Maintainability
- serviceability etc.

- While drawing up a system requirement <sup>document</sup> specification, an engineer might keep track of the functional and non-functional requirements by ensuring the following:-
- The requirements needed to design meets the requirements such as compatibility and portability etc.
  - Design the system that it gives safety and security.
  - Implement the system in an efficient manner that it is error free.
  - The cost and time required for the design should not be affected.

Software engineer make a system requirement document. The engineer could provide documents for each functional and non functional requirements.

The functional requirements are more for the developer's eyes and to use.

The non-functional requirements are what the user wants and what they expect to get out of the software being developed. The engineer would also have to make sure that the non-functional requirements.

For example,

The user needs to search for the student list who are attending the class. It is a functional requirement. That the search should return all the list of candidates who are attempting the class - It is non-functional requirement.

Therefore it helps the engineer to avoid overlap and that relates to each other.

And it keeps track the relationship between functional and non-functional requirements.

Q3 To reduce costs and the environmental impact of commuting your company decides to close -----  
----- using agile methods which rely on close team working and pair programming.

Ans It is difficult to introduce agile methods into large companies for a number of reasons:-

1) Agile method seem to work best as a team members have relatively high skill levels and abilities. People with lower skill levels may not be effective team members in agile process.

2) large organization have different qualities of procedures to attempt all the projects easily with there administrative nature, but some of these are likely to be incompatible with agile methods. Sometimes these are supported by software tools (example requirement management tools) and the use of these tools is mandated for all projects.

3) project managers don't have experience of agile method may be not willing to accept the risk of a new approach as they don't know how this will effect their particular project

4) There may be cultural resistance to agile to agile methods, specially in those organization that have a long history of using conventional system engineering process.

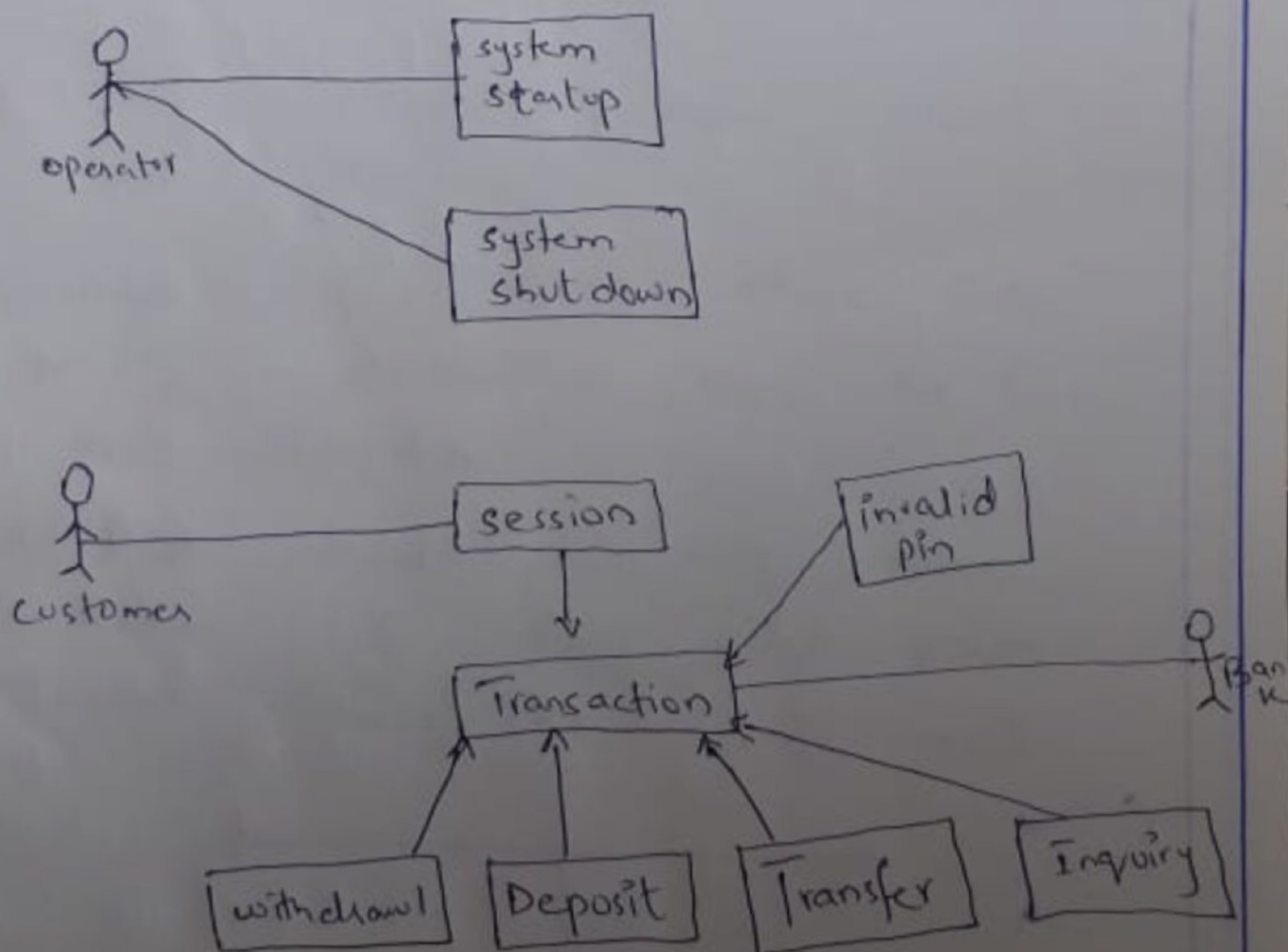
In agile method changing management and testing procedures may not be compatible change management is the process of controlling changes to the system. So that impact of changes is predictable and costs are controlled. All changes have to be approved in advance before they are made and this conflicts with the notion of refactoring

In XP, and developer can approve any code without any code ~~review~~

getting external approval for large system build is handed over to an external testing team. This may conflict with the test first and test often approaches used in XP.

Q5 Using your knowledge of how an ATM is used, develop a set of use cases that could serve as a basis for understanding the requirements for an ATM system?

Ans ATM system:-





Q Discover difficulties / ambiguities or omissions <sup>pay to</sup>  
in the following statement of  
requirements for a part of ticket issuing system

Ans ::

- An option for pay by cash must be there because one might find difficulty using credit card.
- An option for cancellation of destination must be there because there must be number of reasons for the passenger on cancelling the ticket of certain destination.
- There must be an operator facility for blind or disable users which helps them to find the solution of there problems.
- Refunding of cash must be there if a passenger is cancelling the ticket or change his/her mood for travelling.