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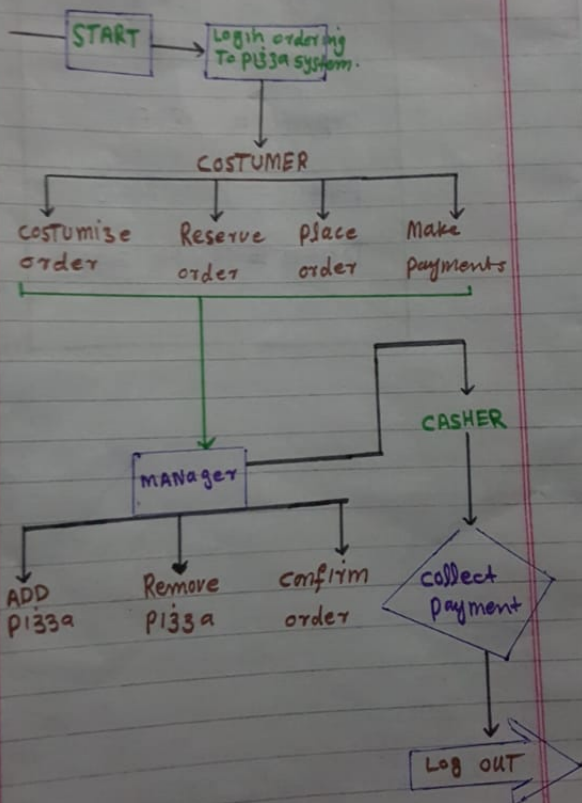
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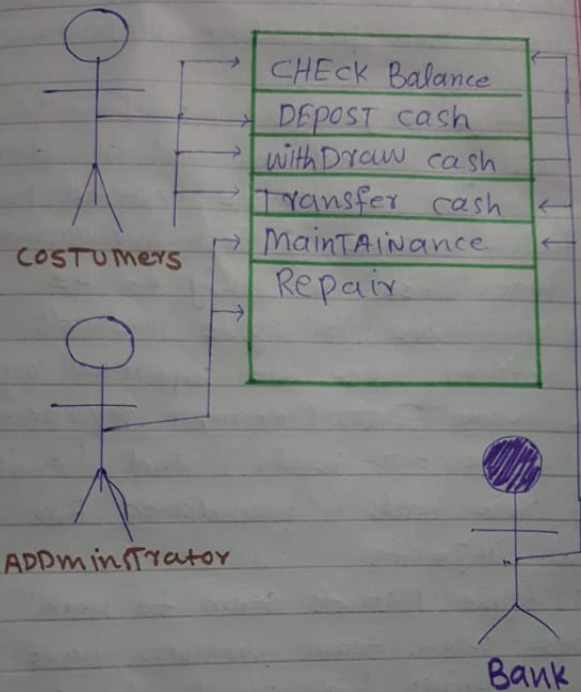
Paper = Software engg

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Question No 01 /:-

Answer No 01 /:-





Q 2 /:-

Suggest how an engineer responsible for drawing up a system requirements specification might keep track of the relationship between functional and non-functional requirements?

Answer 2 /:-

Engineer would have to make a system requirements documents. A engineer could provide documents for each functional and non-functional requirements. The engineer should use natural language for non-functional requirements. and structures language for functional requirements. The functional requirements are more for developers eye and to use. The non-functional requirements are what user ~~wants~~ 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 don't conflict with the functional requirements.

### Question 03 /:-

To reduce costs and the environmental impact of commuting, your company decides to close a number of offices and to provide support for staff to work from home. However, the senior management who introduce the policy are unaware that software is developed using agile methods, which rely on close team working and pair programming. Discuss the difficulties that this new policy might cause and how you might get around these problems.

### Answer 03 /:-

→ Large companies for a number of reasons.

1) Project managers who don't have experience of agile methods may be reluctant to accept the risk of a new approach, as

They do not know how this will affect their particular projects.

2) Large organizations often have quality procedures and standards that all projects are expected to follow because of their bureaucratic nature, 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) Agile Methods seem to work best when team members have a relatively high skill level. However within large organizations there are likely to be a wide range of skills and abilities. And people with lower skill levels may not be effective team members in agile processes.

4) There are maybe cultural resistance to agile methods,



Specially in those organizations that have a long history of using conventional systems engineering processes.

5) change management and testing procedures are example of company procedures that may not be compatible with agile methods.

6) change management is the processes of controlling changes to a system so that impact of changes is predictable and costs are controlled.

7) All changes have to be approved in advance before they are made and this conflicts with the notion of refactoring.

8) In XP, any developer can improve any code without getting external approval for large system, there are also testing standards.

9) where a system build is handed over to an external testing team. this may conflict with the test first and test often approaches used in XP.

## Question No 04 /:-

Discovers difficulties / ambiguities or omission in the following statement of requirements for part of a ticket-issuing system.

## Answer No 4 /:-

Ambiguities and omission include:-

- Can customer buy several tickets for some destination together or must they be bought one at a time.
- Can customers cancel request if a mistake has been made.
- How should the system respond if an invalid card is input.
- What happen if customers try to put their card in before selecting a destination (as they would in ATM machines).
- Must the user press the start button again if they wish to



buy another ticket to different destination.

- Should the system only sell tickets between the station where the machine situated and direct connections or should it include all possible destinations.

### Question 05 /:-

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

### Answer 5 /:-

- The user inserts card into the reader. The ATM asks for pin. user enters PIN correctly
- The ATM display user banks information and user click on with draws cash and then he select how much money the users wants to with ~~at~~ draw.
- When he choose the amount

of money and click ok. He is done with the procedure.

→ Now the ATM first eject the card than dispenses the money and Receipt.

2nd case :-

The user insert card into the reader. The card cannot be read. The ATM display the error and ejects the card.

Ended.