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Section	B
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Question-1 online Piza ordaring system:

Online Pizza ordering system is a web-based application which enables customers to order their pizzas online for home delivery or pick up from the pizzeria.

The following case diagram is made in lucidchart.com. This case diagram is the infrastructure of an online pizza ordering   system.
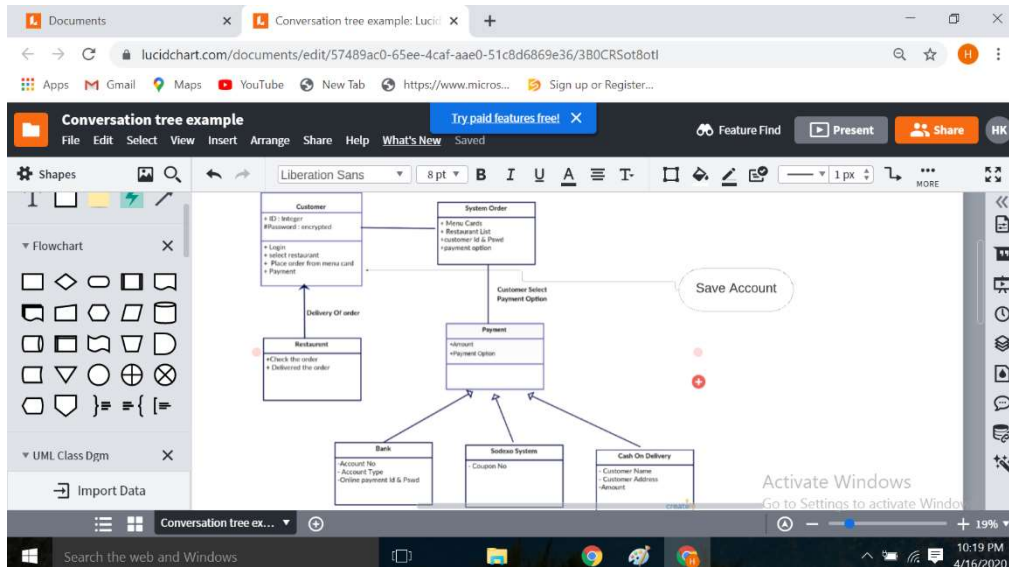
Case diagram of online pizza ordering system:-
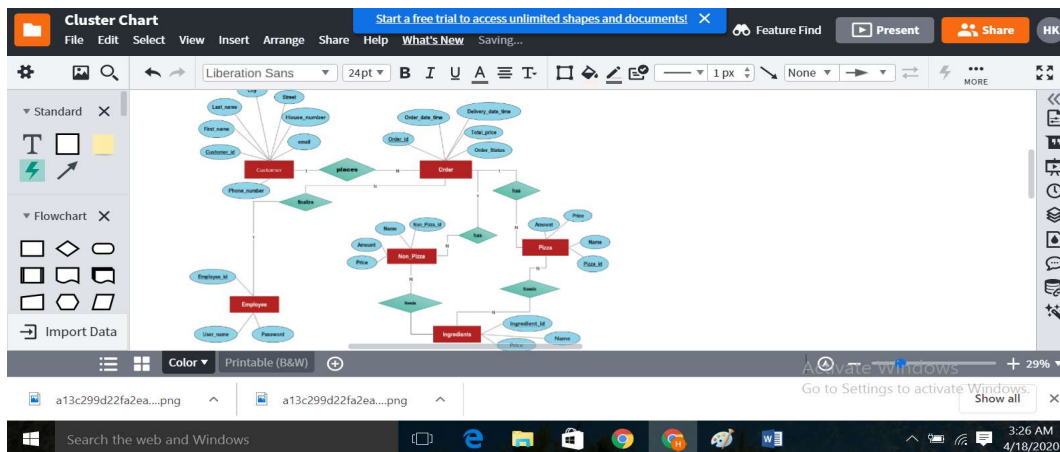
Payment method:-

There will be basically 2 payment options i.e. online payment using Credit/Debit cards and Internet banking or Cash on delivery. Before making payment your order details are shown and confirmed.
This system makes transactions easier as the need to pay with cash is not there.

End of question 1

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Question 2 : sugest how an engineer is responsible for drawing up a system requairments spesification might keep track of the relationship b/w functional and non functional requirments?

<u>Ans:-</u> **Functional requirements describe** the system what it will do.

Ex: inputs and outputs.

Non-functional requirements describe the expectations but it is not concerned with the system.

Ex: security

While drawing up a system requirements 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, portability etc.

• Design the system so that it ensures the safety and security.

• Implementing the system in an efficient manner.

• The cost and time required for the development should not affect the design and implementation of the system

Here, the non-functional requirement defines what are the expectation to get out and the user requirements.

The functional requirement defines the use of the developer knowledge.

It does not conflict with each other.

The first step is to make the **Systems Requirement Document.**

It is engineer responsible to prepare documents to each functional and non-functional requirement.

• The engineer needs to prepare the document depending on this; Non-functional requirements need the **natural languag**e and functional requirements need the **structured language** to understand better.

• It gives the **matrix** that shows each requirement related to each other.

• It is **very difficult to manage** because the functional and non-functional requirements put efforts with each other on track of relationships.

• Non-functional requirements linked with functional requirements to list, identify the system levels that have related each other.

• The engineer needs to prepare the way to link the functional to non-functional to implement it.

• The functional requirements **enforce** the non-functional requirements that shall be recorded and tracked.

For example,

The user needs to search for the candidate list for the interview.

It is a functional requirement.

That the search should return all the list of candidates who are attending the interview.

It is a non-functional requirement.

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

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

End of question 2

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Question 3: To reduce cost and the envairalmental impacts of commuting, your company decide to close a number of offices and to provides support for staff to work from home. However the senior management who introduce are unaware that the software is developed is using agile method, which rely and close tem working and pair programming. Discus the difficulties that this new policy might get around these problems.

Answer 3:-

if the company decided to close down a number of offices that was specialized in using agile method they may face multitude difficulties. When a company is driven by a close team and is divided they will be unable to have daily meeting, which can Couse issues with communication, programming in fair would not be possible, communication gab will be created, productivity will be slow down due to communication issues, and deducting error would quit difficult. These problem can

be avoided by creating merging offices together so fair programming can be established. If that is not possible, a communication consisting of webcams, desktop viewing software and microphone should be crated to allow better communication.

<div align="center">End of question 3</div>

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Question 4:- discus difficuilties / ambiguities or ommision in the following statement of requairmnets for part of ticket issunig system :

An atumated ticket-issuing system sell raill tacket. User select their distenation and input a credit card and a personal identificatiion number. The raill ticket is issuid and their credit card account charged. When the user preces start button, a menu display of potentional destination is activaated, along with the messege to the user to select a destination. Once a destination. User are requested to input their credit card. Its validity is cheked and the user is then requested to input a personal identifier. When the credit card transiction has been validated. The ticket is been issued.

 Answer 4 :- Ammbiguttes And ommsion includes:-

1 Can a customer buy serval tickets from the same destination are must they be bought one at a time?

2 Can customer cancel a request if a mistake has been made?

How should the system responed if an invalid card is input?

What happen if the customer try to put there is before selecting a destination(as they would in ATM machine).

3 must the user press the start button again if they wish to buy another ticket to a different destination.

4 should the sysytem sell only ticket b/w the station where the machine is situated and direct connectiion or should include all possible destination?

* End of question 4 *

Question 5:- Using your knowledge of how an ATM is used, develop a set of use cases that could serve as a baic for understanding the requirment for an ATM system.

Answer 5:- ATM is an Automated Teller Machine (ATM) An automated teller machine (ATM) is a computerized telecommunications device that provides the customers of a financial institution an access to financial transactions in a public space without the need for a human clerk or bank teller. On most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smartcard with a chip, that contains a unique card number and some security information, such as an expiration date or CVC (CVV). Security is provided by the customer entering into ATM Machine.

ATM Case Diagram:-
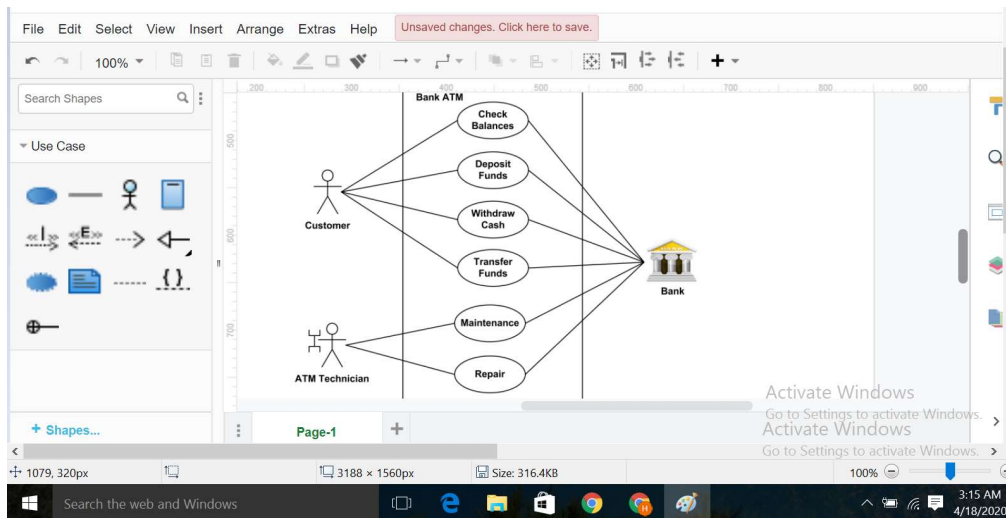
 4. Basic Flow of Events

1. 4.1 **Insert Card**: use case begins when the actor Customer inserts their bank card into the card reader on the ATM. The system allocates an.
2. **Read Card**: The system reads the bank card information from the card.
   3 Authenticate Customer: Perform Subflow Authenticate Customer to authenticate the use of the bank card by the individual using the machine.

3 **Select Withdrawal**: The system displays the service options that are currently available on the machine. The Customer selects to withdraw cash.

4 **Select Amount**: The system prompts for the amount to be withdrawn by displaying the list of standard withdrawal amounts. The Customer selects an amount to be withdrawn.

5 **Confirm Withdrawal**: Perform Sub flow Assess Funds on Hand Perform Sub flow Conduct Withdrawal

6 **Eject Card**: The system ejects the Customer's bank card. The Customer takes the bank card from the machine.

7 **Dispense Cash**: The system dispenses the requested amount of cash to the Customer. The system records a transaction log entry for the withdrawal.

Use Case Ends: The use case ends.

Paper end

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