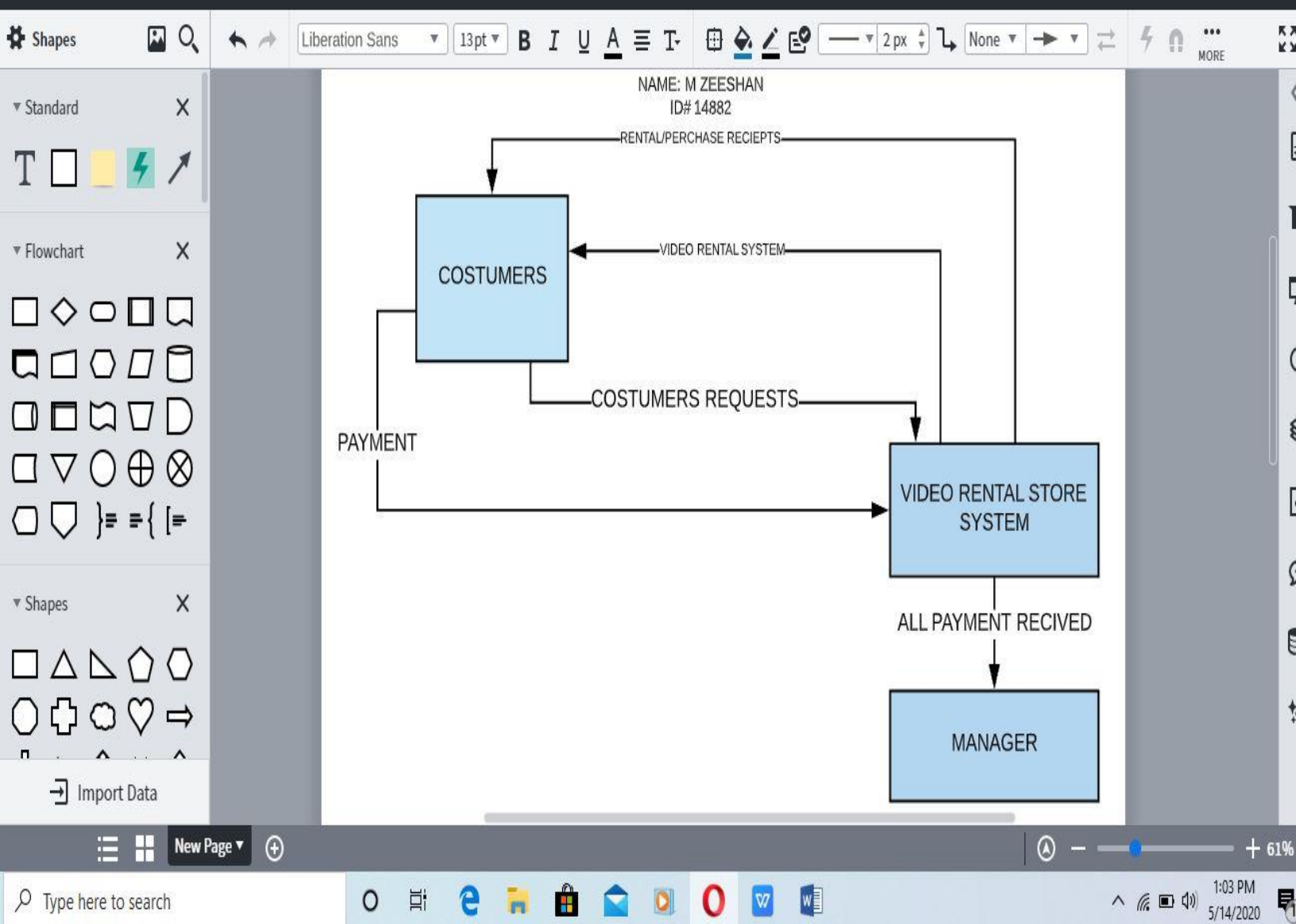| NAME | M ZEESHAN |
ID#	14882
SECTION#	B
DEPARTEMENT	BS (SE)
SESSIONAL ASSIGNMENT	SOFTWARE ENGINEERING

INSTRUCTOR:

GHASSAN HUSNAIN

QUESTION#1

The store lends videos to customers for a fee, and purchases its videos from a local supplier. A customer wishing to borrow a video provides the empty box of the video they desire, their membership card, and payment – payment is always with the credit card used to open the customer account.

Video-Rental LTD is a small video rental store. The store lends videos to customers for a fee, and purchases its videos from a local supplier. A customer wishing to borrow a video provides the empty box of the video they desire, their membership card, and payment – payment is always with the credit card used to open the customer account. The customer then returns the video to the store after watching it. If a loaned video is overdue by a day the customer's credit card is charged, and a reminder letter is sent to them. Each day after that a further card is made, and each week a reminder letter is sent. This continues until either the customer returns the video, or the charges are equal to the cost of replacing the video. New customers fill out a form with their personal details and credit card details, and the counter staff gives the new customer a membership card. Each new customer's form is added to the customer file. The local video supplier sends a list of available titles to Video-Rental LTD, who decide whether to send them an order and payment. If an order is sent, then the supplier sends the requested videos to the store. For each new video a new stock form is completed and placed in the stock file.

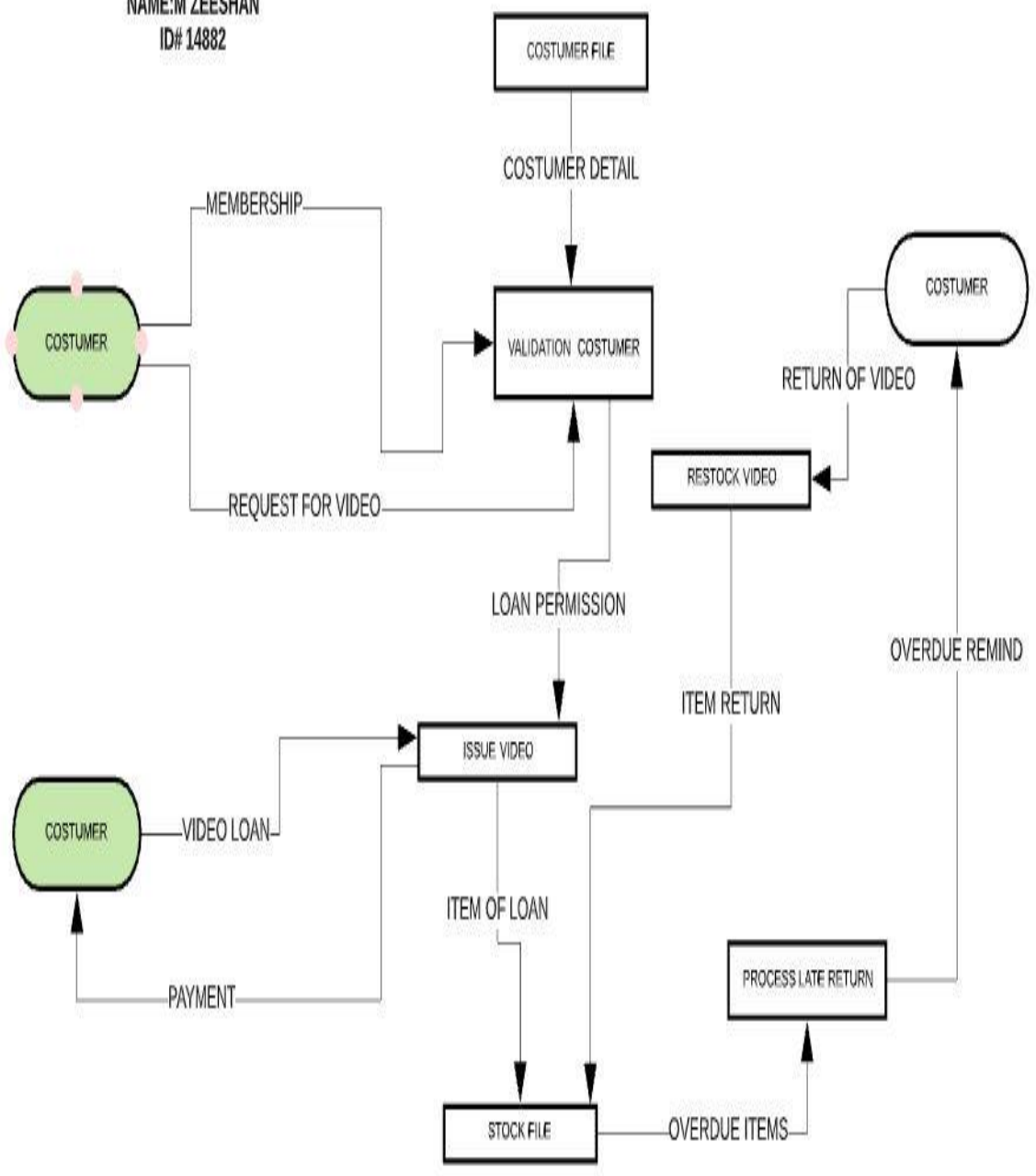➜**Draw a Context diagram for Video-Rental LTD:**

➔ Draw a Level 1 Data Flow Diagram (DFD) for the above case study:

NAME: M ZEESHAN
ID# 14882

COSTUMER FILE

COSTUMER DETAIL

MEMBERSHIP

COSTUMER

VALIDATION COSTUMER

COSTUMER

RETURN OF VIDEO

RESTOCK VIDEO

REQUEST FOR VIDEO

LOAN PERMISSION

OVERDUE REMIND

ITEM RETURN

ISSUE VIDEO

COSTUMER

VIDEO LOAN

ITEM OF LOAN

PROCESS LATE RETURN

PAYMENT

STOCK FILE

OVERDUE ITEMS

➔Draw a Level 2 DFD for Video-Rental LTD case study stated above:

customer

membership card

customer Detail

Customer Detail

customer

Request for vedio

payment

Member ship

D1 customer Detail

custtomer detail

1 Creat New Customer

supplier

available tile

purchase vedio

Return of vedio

2 loan of vedio

3 stock contole

oreder

payment

supplier

overdue Reminder

vedio Loan

overdue items

new vedio details

item on loan

iteam return

customer

D2 Stock file

2: Estate Agency case study:

Clients wishing to put their property on the market visit the estate agent, who will take details of their house, flat or bungalow and enter them on a card which is filed according to the area, price range and type of property. Potential buyers complete a similar type of card which is filed by buyer name in an A4 binder. Weekly, the estate agent matches the potential buyer's requirements with the available properties and sends them the details of selected properties. When a sale is completed, the buyer confirms that the contracts have been exchanged, client details are removed from the property file, and an invoice is sent to the client. The client receives the top copy of a three-part set, with the other two copies being filed. On receipt of the payment the invoice copies are stamped and archived. Invoices are checked on a monthly basis and for those accounts not settled within two months a reminder (the third copy of the invoice) is sent to the client.

Identify the system boundaries:

The easiest place to making a data-flow model of a system is to identify what the external entities of the system are and what inputs and outputs they provide. These give you the boundary between the system and the rest of the world. External entities must provide inputs or receive outputs. There are usually one or two external entities which stand out as obviously interacting with the system but not being part of the system. In the Estate Agent system, Client and Buyer stand out as external entities. Others may be harder to spot, but by consider nouns in the case study and add them to a list of possible external entities. It may be tempting to add Estate Agent as an external entity as it obviously interacts with the system. However, the estate agent is in fact part of the system in that s/he manipulates the data within the system. Another way to think about it is that the estate agent will actually be replaced by the new system and so does not need to appear on the data-flow diagram.
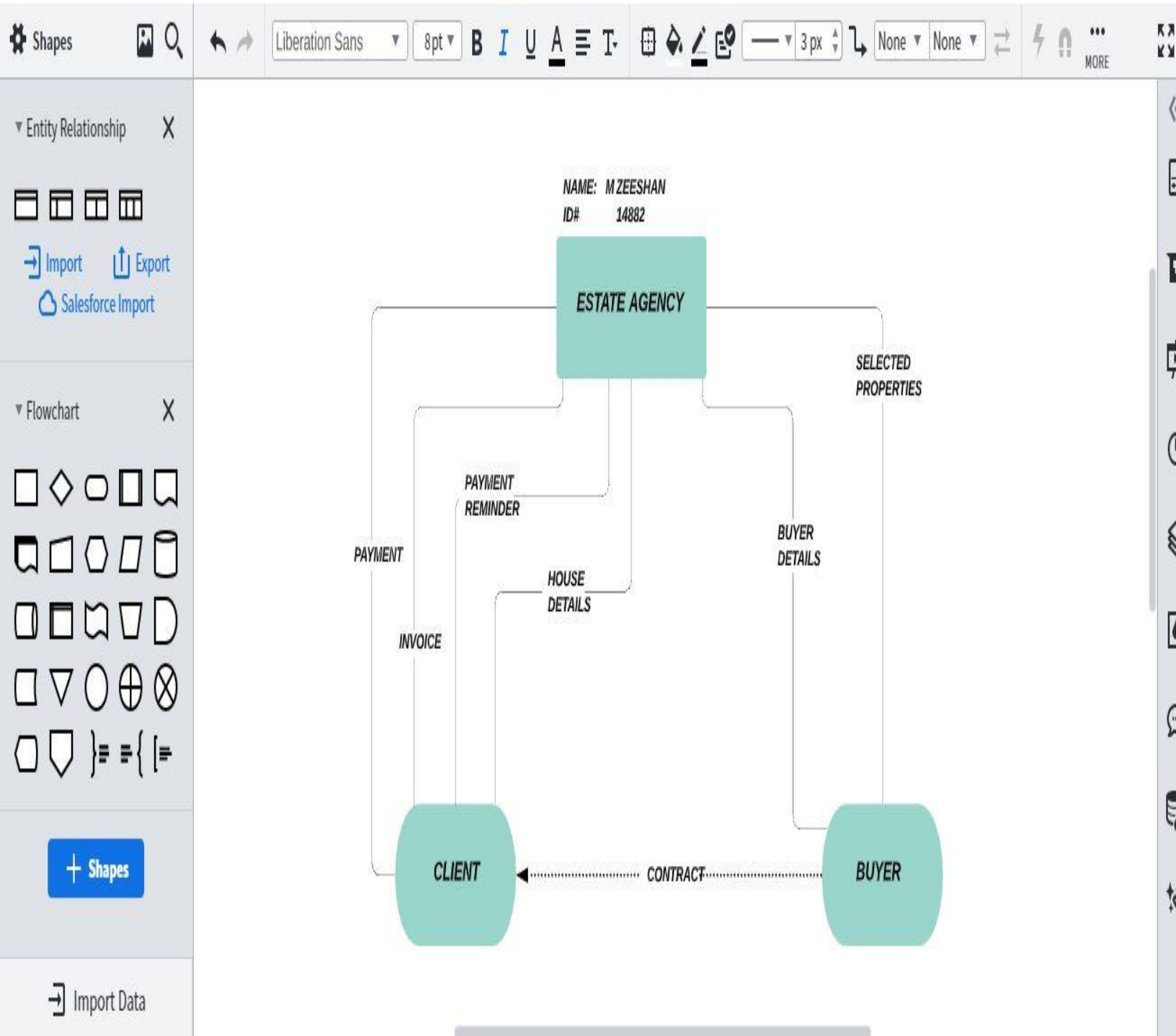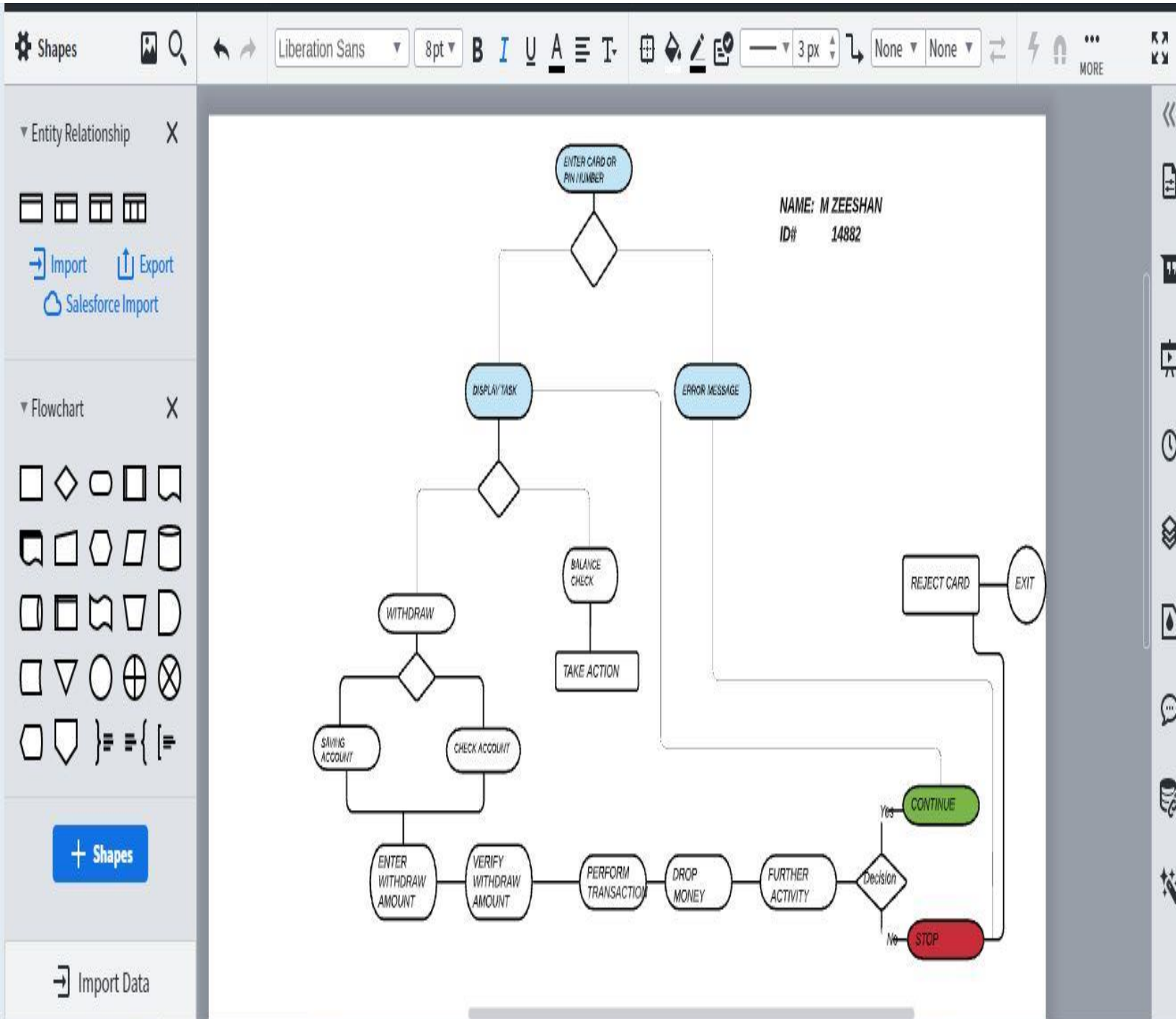
ANSWER:

Q3: Based on your experience with a bank ATM, draw an activity diagram that models the data processing involved when a customer withdraws cash from the machine?

ANSWER:

THANK YOU SIR