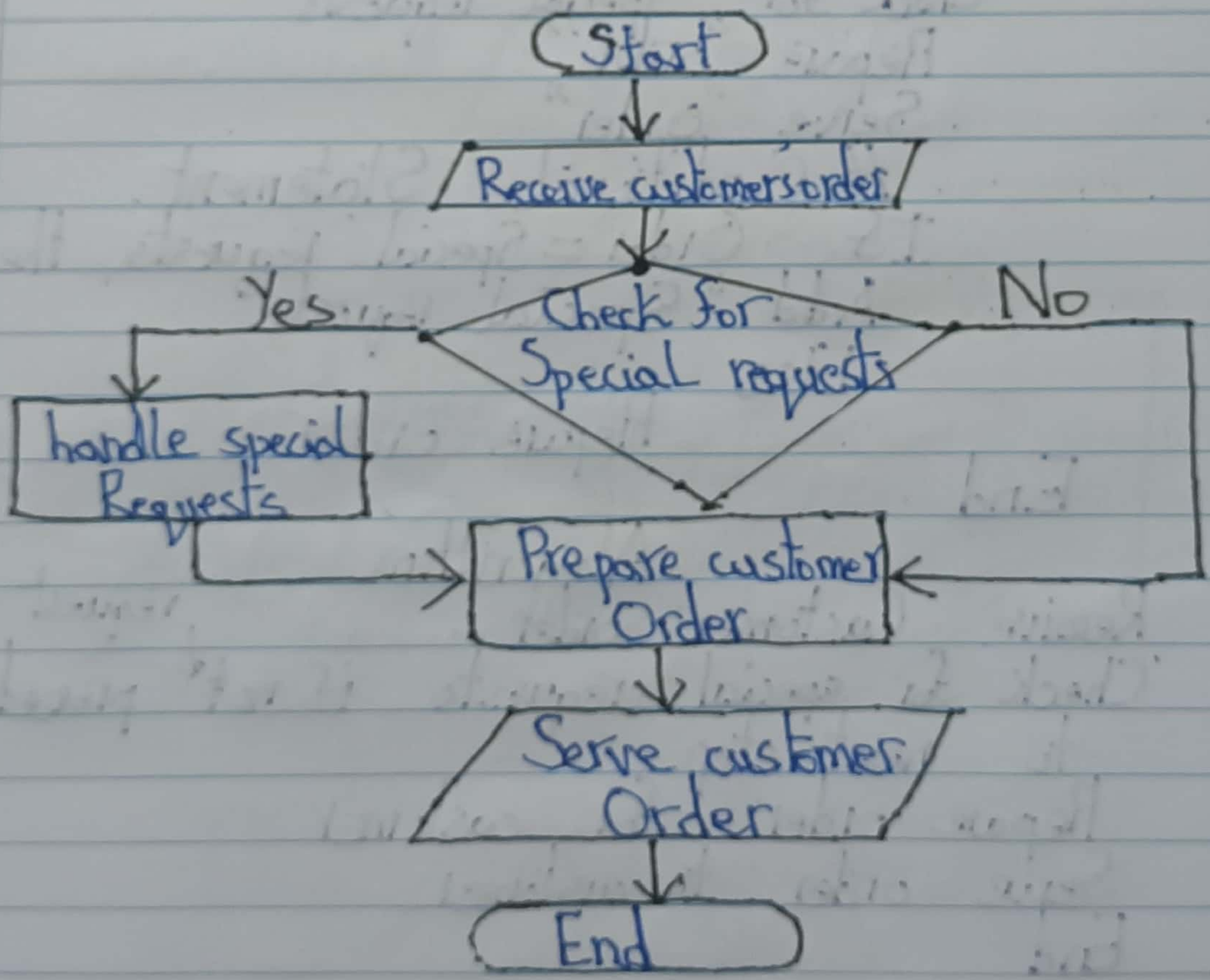
FP Lab: 2

Roll Number: 24k-0001
Name: M.Masoom Khan

Lab Tasks

1 Design a flowchart, Pseudo code, Algorithm for processing a customer order at a restaurant including handling special requests.

Flowchart



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Roll No: 24k0001 Name: M. Masoom Khan

Q1

Pseudocode

```
START

// Input/Output
Receive order
Serve order
Variabes: "Order" "Special requests"
  //Process "steps"
  Recieve "Order"
  Check for "Special requests"
  Prepare "order"
  Serve "Order"
  // Conditional Statement
  If Order = Special requests then
  Add "Special requests"
  Else
  Prepare order
End
```

Algorithm

1. Receive Customer order request
2. Check for special requests if not proceed to next step.
3. Prepare order for customer
4. Serve order to customer
5. End

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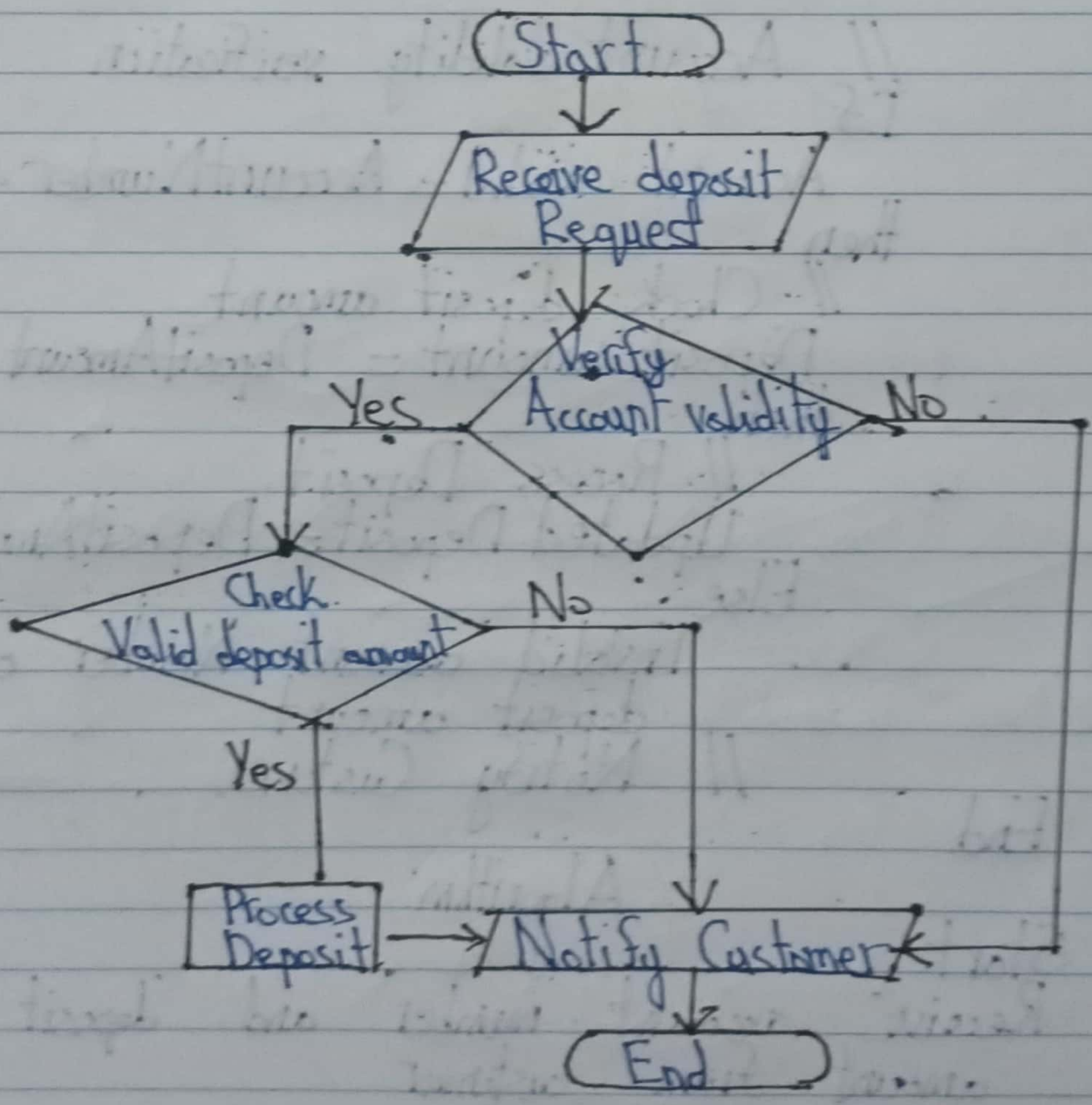
2. Design a flowchart, Pseudocode, Algorithm for handling a customer's deposit transaction at a bank including checks for account validity and deposit amount conditions.

Flowchart



FB Lab: 2

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Q2 Pseudocode

```
START
    // Input
    AccountNumber = get account number from customer()
    DepositAmount = get deposit amount from customer()

    // Account validity verification
    If
        Account valid = AccountNumber
    then
        // Check deposit amount
        Deposit amount = DepositAmount
    then
        // Process Deposit
        Updated Deposit = DepositAmount
    Else
        Invalid account Number or
        deposit amount
        // Notify Customer
End
```

Algorithm

1. Start
2. Receive account number and deposit amount from customer

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02

3 Retrieve account details using account number.
If account number is invalid:
Show "Invalid Account Number"
else move to next step.

4 Check if deposit amount is valid
If deposit amount <= 0:
Show "Invalid deposit amount"
else move to next step.

5 Add new deposit amount to the account and update account balance.

6 Display "Deposit successful."

7 End.

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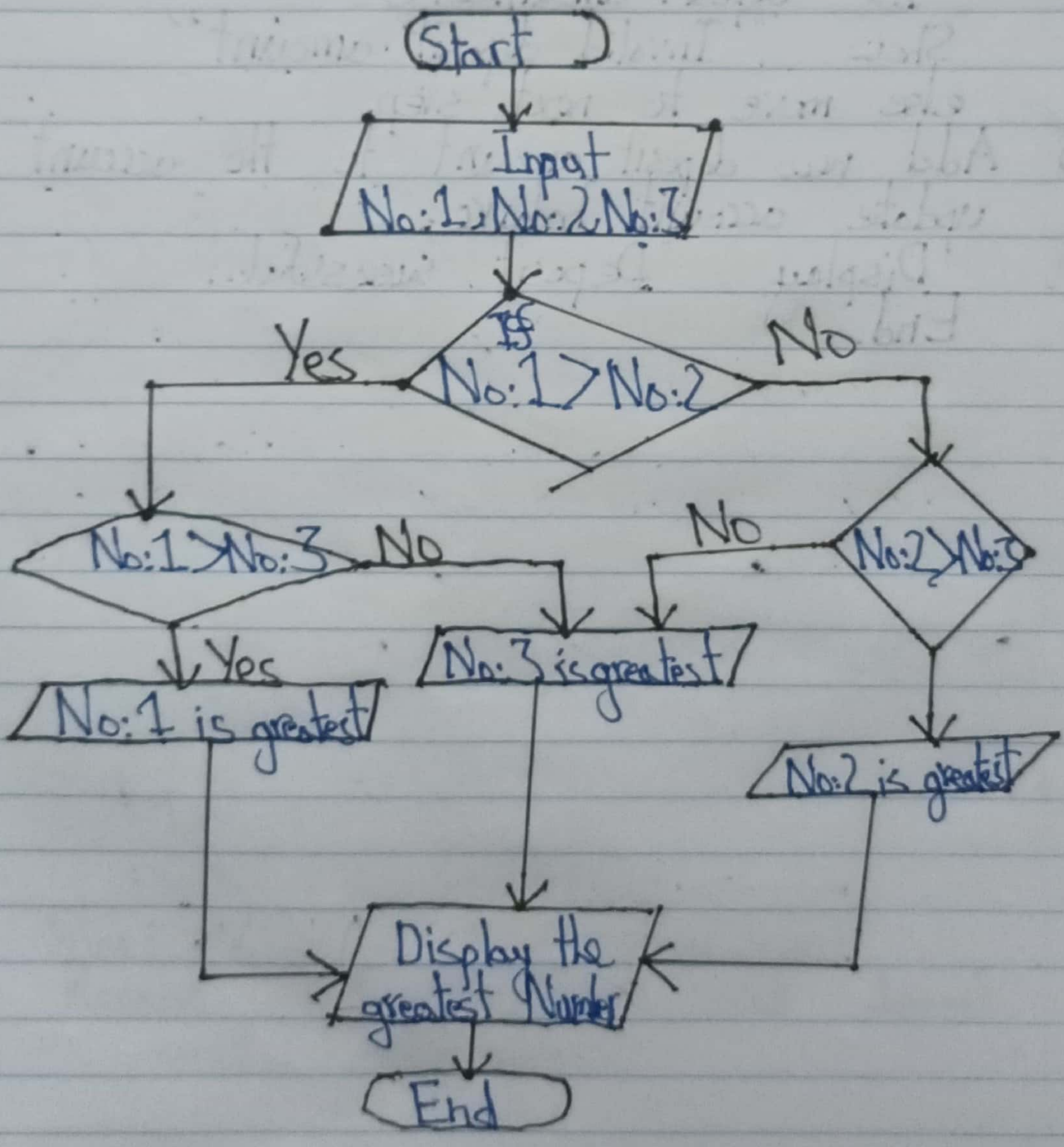
Name: M. Masoom Khan Roll No: 24k-0001

3 Design a flowchart; Pseudocode, Algorithm to determine which of the three provided numbers is the greatest.

Flowchart



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Q3

Pseudocode

```
START
    // Input
    num1, num2, num3
    // Process steps
    If num1 > num2 and
       num1 > num3
    Then
        Print greatest = num1
    Else If
       num2 > num1 and
       num2 > num3
    Then
        Print greatest = num2
    Else
        Print greatest = num3
    // Output
    Print "The greatest number is:"
    , Print greatest
End
```

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Q3

Algorithm

1 Start

2 Input numbers:
N1, N2, N3

3 Compare the numbers such that
if
N1 > N2 and N1 > N3
greatest = N1
Otherwise
If N2 > N1 and N2 > N3
Set greatest = N2
Else
~~Set "greatest number is:" greatest~~
Set greatest = N3

4 Output: "Greatest number is:" greatest

5 End

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4 Implement an algorithm where the users enters a number and an appropiate month is displayed

Algorithm

1 Start

2 Input number n from user such that n = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 or 1

3 Check

If n=1 then output = "January"
If n=2 then output = "February"
If n=3 then output = "March"
If n=4 then output = "April"
If n=5 then output = "May"
If n=6 then output = "June"
If n=7 then output = "July"
If n=8 then output = "August"
If n=9 then output = "September"
If n=10 then output = "October"
If n=11 then output = "November"
If n=12 then output = "December"

4 Else

Input correct number as the number is invalid.

5 End

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5 Create pseudocode, a small calculator which does '+' or '-' Operations.

Pseudocode

```
START
    // Input
    num1, num2, op
    // Processing steps
If  op = +
    // Output
    Print " num1 + num2"
Else
    op = " - "
    // Output
    Print " num1 - num2"
Otherwise
    // Output
    Print "Invalid operator"
End
```

FbP Lab: 2

Roll No: 24k-0001 Name: M. Masoom Khan

Date:

6 You are working at Toyota Indus Motors and want to assemble a car. Design a flowchart with proper process modules and decision structures to replicate a pipeline production.

FAST

FP Lab: 2

Roll No: 24k-0001 Name: M Maseem Khan

7 Implement an algorithm for making a simple calculator with all operation (+, -, *, /, %)

Algorithm

1 Start
2 Input "N1", "N2", op
3 If op = "+" output "N1 + N2"
4 If op = "-" output "N1 - N2"
5 If op = "*" output "N1 * N2"
6 If op = "/" output "N1 / N2"
7 If op = "%" output "N1 % N2"
8 End