Q1: Design a flowchart, Pseudocode, Algorithm for processing a customer order at a restaurant, including handling special requests (Like add on).

Algorithm:

Step 01**:** Start

Step 02: Give Menu to Customer

Step 03: Take Order

Step 04: Give me Cold drink

Step 05: Check If Cold Drink Are Available

Print (“Give The order”)

Else

Print (“Sorry Sir! Cold Drink are not available at this time”)

End

Step 06: Stop

Pseudocode

Start

Give menu to customer and take a order

Customer order a cold drink

Check those particular Cold drink are available or not

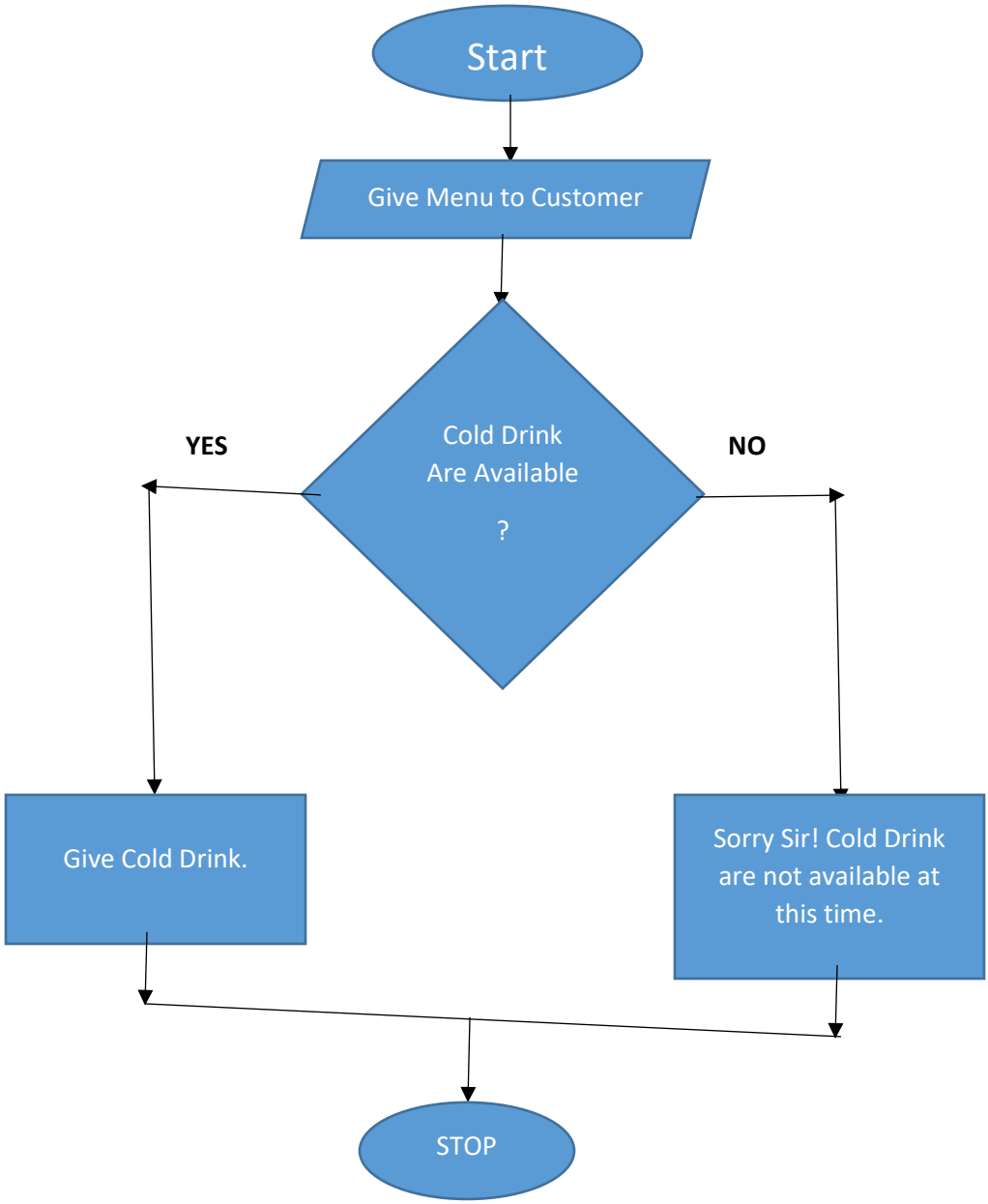
If Cold drink are available

Print “Give Them”

Else

Print “Sorry Sir Cold drink are not available”

End



Q2:

Algorithm:

Step 1: Start

Step 2: Take a ATM Card

Step 3: Go to Bank

Step 4: Insert a ATM Card in ATM Machine

Step 5: Enter ATM PIN

Step 6: If ATM pin are correct

Print “Go to Next Step”

Else

Print “Sorry ATM pin are incorrect transition Failed”

End

Step 7: Enter the Amount and withdraw the amount

Step 8: withdrawal Complete

Step 9: Take ATM Card and Amount

Step 10: Stop

Pseudocode

Start

Go to bank and insert a atm card into atm machine

Enter your pin

Enter the amount and withdraw the amount

Take a atm card and amount and go back to home

End

Q3

Algorithm

Step 1: Start

Step 2: Input a, b, c

Step 3: if a>b then check a>c

If Yes

Print a

Else

Print c

Else

Print (b), and check b>c

If Yes

Print b

Else

Print c

End

Step 4: Stop

Pseudocode

Start

Input A

Input B

Input C

If A is greater than B then check

If A is greater than C

Print A

Else

Print C

Else

Print B and Check

If B is greater than C

Print B

Else

Print C

End

Q4: Implement an algorithm where the user enters a number, and an appropriate month is displayed.

Algorithm:

Step 1: Start

Step 2: Input Number

Step 3: If Number = 1

Print “January”

Else Number = 2

Print “February”

Else Number = 3

Print “March”

Else Number = 4

Print “April”

Else Number = 5

Print “May”

Else Number = 6

Print “June”

Else Number = 7

Print “July”

Else Number = 8

Print “August”

Else Number = 9

Print “September”

Else Number = 10

Print “October”

Else Number = 11

Print “November”

Else Number = 12

Print “December”

Else Number >12

Print “Error”

Step 4: Stop

Q5: Create pseudocode a small calculator which only does ‘+’ or ‘-‘Operations. (Hint: Take three variable inputs with one being used for the operator)

Pseudocode

Start

Input a, b

If +

Print (a + b)

Else -

Print (a - b)

Else print “Invalid Operator”

End

Q7:

Pseudocode

Start

Input X

Input Y

If +

Print (X+Y)

Else -

Print (X-Y)

Else *

Print (X*Y)

Else /

Print(X/Y)

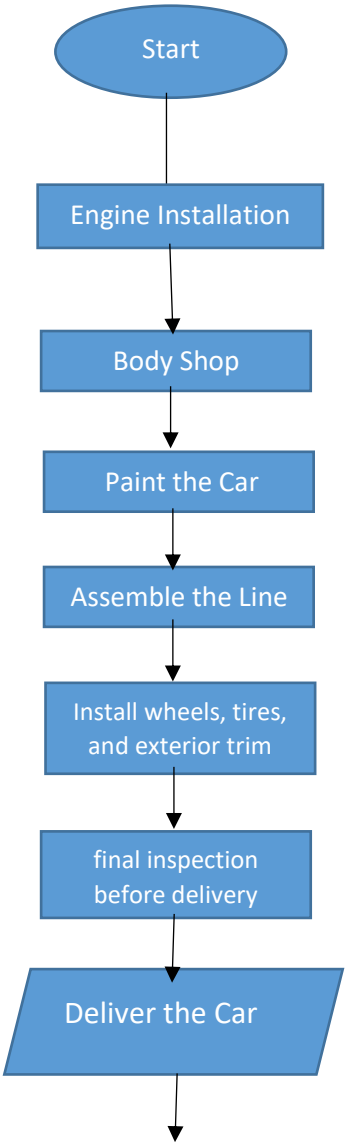
Else %

Print (X%Y)

Else “Invalid Operator”

End

Q6: 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.



Q10: Difference between Algorithm and Pseudocode?

Algorithm:

- An Algorithm is step-by-step instruction for a solving problem.
- Algorithm can be expressed in various form, such as
  1) Natural language
  2) Flowchart

Pseudocode:

- Pseudocode is a high-level representation of a computer program.
- Uses plain language to describe the program's flow and logic.
- Pseudocode typically includes elements like: variable, data types, if/else etc.

Q9: Why we use .gitignore?

- We use .gitignore to tell git which files to ignore in a repository. This is useful for several reasons.
  1) Reduce Repository size
  2) Exclude unnecessary files
  3) Keep sensitive data private