**CS LAB # 2:**

**Lab Task :**

Q#1) Processing a customer order at a restaurant, including handling special requests (Like add on).

***ALGORITHM:***

STEP#1: locate customers that are ready to order.

STEP#2: Note down their orders.

STEP#3: Ask for any add on , drinks, special requests etc.

STEP#4: Take the noted order to the chef.

STEP#5: When prepared serve it to the respective customer.

***PSUEDOCODE:***

START

//INPUT/OUTPUT

Input order

Input add on

//Processing

Take order to the chef to prepare and serve when done to the respective customer.

END

***FLOWCHART:***

START

INPUT

Take order from customer

Ask for add on if any

PROCESS

Take order to the chef for preparation .

OUTPUT

Take order to respective customer.

END

Q#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.

***ALGORITHM:***

STEP#1: START

STEP#2: Input info on cheque for withdrawal for account validity carefully checking info.

STEP#3: Verify the cheque and the account holders id and info.

STEP#4: Take out the customer’s desired amount, count and carefully hand to the customer.

STEP#5: END

***PSUEDOCODE:***

START

//Input/Output

Input cheque values and amount desired for withdrawal.

//processing

Verify cheque and account holder’s info.

Then count and hand the desired amount to the account holder.

END

Q#3) Which of the three provided numbers is the greatest?

***ALGORITHM:***

STEP#1: start

STEP#2: Input number1, number2, number3.

STEP#3: Process and determine which is the greatest .

STEP#4: Print the greatest no.

STEP#5: END

***PSUEDOCODE:***

START

//INPUT/OUTPUT

Input number1, number2, number3

//PROCESS

Determine the greatest number among the provided three

Print greatest number

END

Q#4) Implement an algorithm where user would input a number and an appropriate month would be selected.

***ALGORITHM:***

STEP#1: start

STEP#2: take number form user as input.

STEP#3: see if the no. is present in the appropriate data as follows

1=January

2=February

3=march

4=april

5=may

6=june

7=july

8=august

9=September

10=October

11=November

12=December

STEP#4: If the number matches the data, print the respective month.

***PSUEDOCODE:***

START

//INPUT/OUTPUT

Input number=1-12

//PROCESS

Read the number between 1-12 and print the respective month according to the data.

END

Q#5: Create pseudocode a small calculator which only does ‘+’ or ‘-‘Operations. (Hint: Take three variable inputs with one being used for the operator)

***ALGORITHM:***

STEP#1: start

STEP#2: Input three variables (n1, n2 and n3).

STEP#3: Calculate (N1=n1+n2+n3)

STEP#4: Print “N1”

STEP#5: Calculate (N2= n3-n2)

STEP#6: Print “N2”

STEP#7: end

***PSUEDOCODE:***

START

//INPUT/OUTPUT

Input variables

n1, n2 and n3

//CALCULATE

N1=n1+n2+n3

Print N1

N2=n3-n2

Print N2

END

Q#7) Implement an algorithm for making a simple calculator with all the operators (+,-,\*,/,%)

***ALGORITHM:***

STEP#1: start

STEP#2: Input variables n1 and n2 and total(T)

STEP#3: For ADDITION calculate (A=n1+n2)

STEP#4: Print A

STEP#5: For SUBTRACTION calculate(S=n2-n1)

STEP#6: Print S

STEP#7: For DIVISION calculate(D=n1/n2)

STEP#8: Print D

STEP#9: For PERCENTAGE calculate(P=n1+n2/T\*100)

STEP#10: Print P

STEP#11: For MULTIPLICATION calculate(M=n1\*n2)

STEP#12: Print M

STEP#13: END