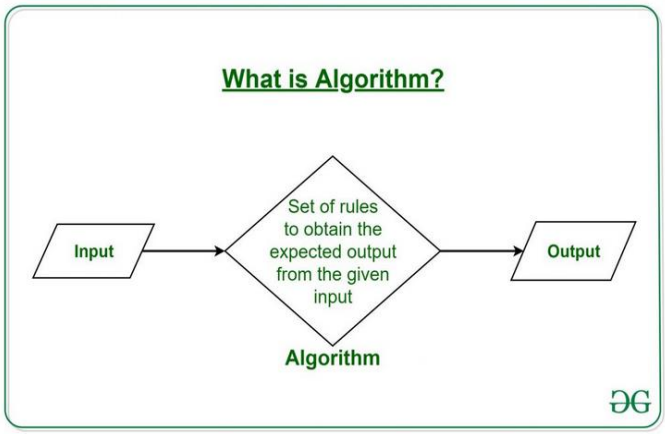
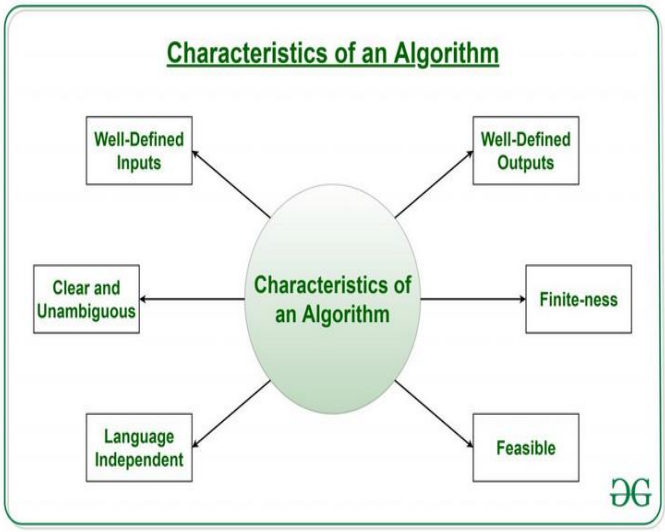
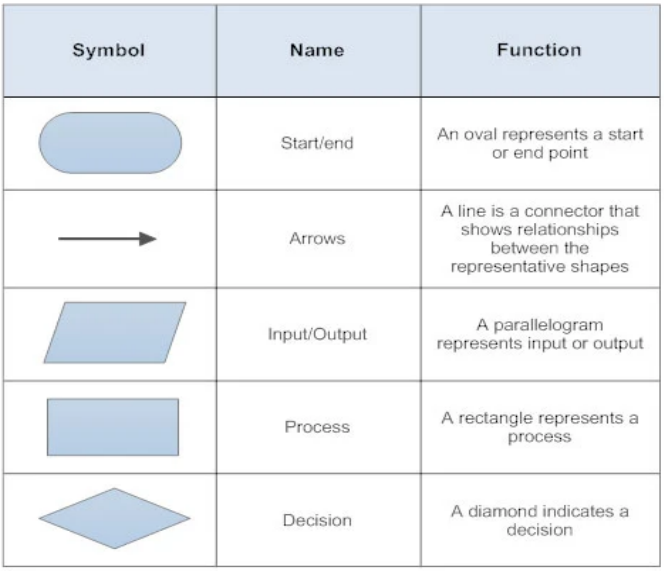
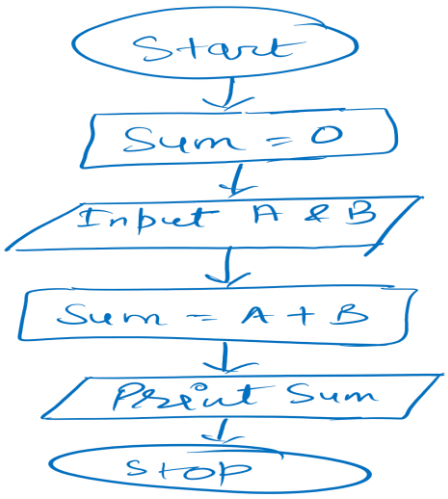
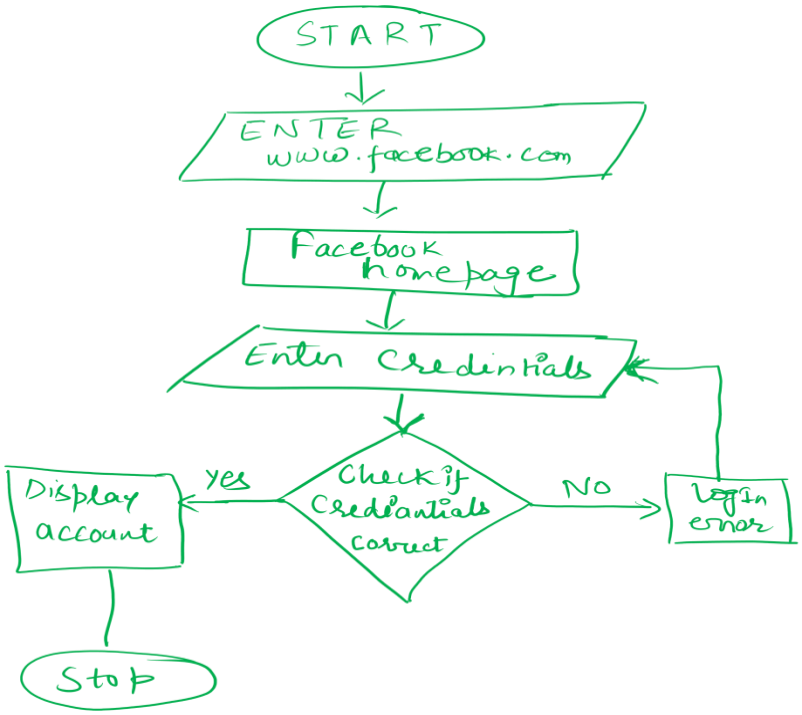
Algorithms	Algorithm can be defined as: "A sequence of activities to be processed for getting desired output from a given input." 
Main properties of an Algorithm	
Problem Solving	Problem solving is the act of defining a problem; determining the cause of the problem; identifying, prioritizing, and selecting alternatives for a solution; and implementing a solution. The problem-solving process. Problem solving resources.
Flowcharts	A flowchart is a type of diagram that represents an algorithm, workflow or process. The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows. This

	diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields.
Symbols Used	
CPU	CPU itself has following three components. -Memory or Storage Unit. -Control Unit. -ALU(Arithmetic Logic Unit)

1. Make a flowchart to read two numbers, and find their sum.



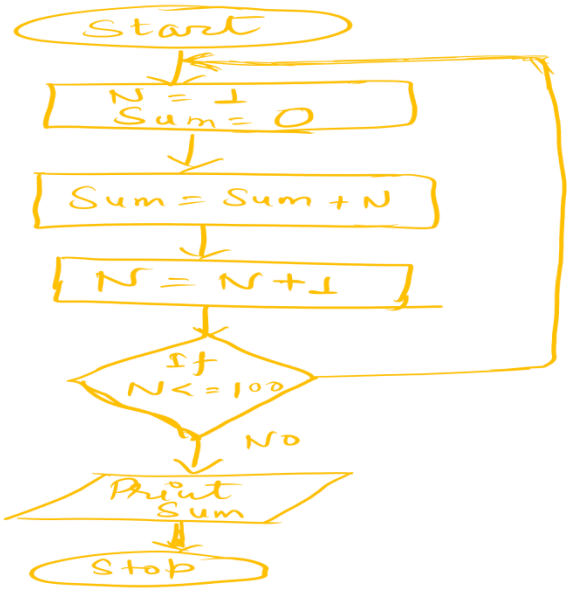
2. Suppose you are tech savvy student. You have account in all social media platforms. One of your colleague has joined you in Bennett University, he is not much aware of these platforms; draw a flowchart for him to understand how he will open a face book account.



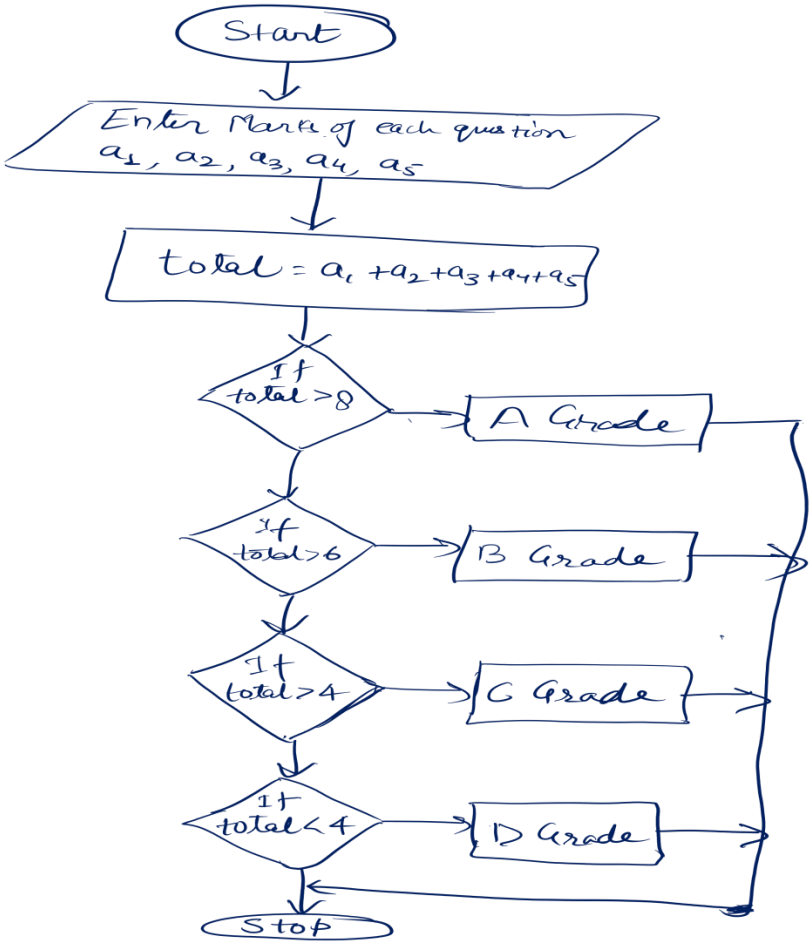
3. Amar, Akbar and Anthony are three brothers; their height is given to you. Write an algorithm to find who is tallest among all.
    - Step 1 : Start
    - Step 2 : Declare height h1, h2, h3, max_height
    - Step 3 : If **h1 > h2** go to step 4 Otherwise go to step 5
    - Step 4. If **h1 > h3** SET max_height = h1 Otherwise max_height = h3
    - Step 5 : If **h2 > h3** SET max_height = h2 Otherwise max_height = h3
    - Step 6 : End

4. Aditya has joined Bennett University recently and living in the hostel. While leaving home his mother has instructed him to eat fruits every day. He goes to nearby Aichher market and buys some fruits. He is having 500 Rupees with him. He purchased 2.0 kg Apples for Rs. 100.0 per kg, 1 kg orange priced Rs.45.0 per kg, 1.5 kg banana priced Rs.30.0 per kg, and 1 kg pomegranate priced Rs. 115 per kg. He gives Rs. 500 to the shopkeeper. Write down an algorithm for this problem, also tell number of items and the saved amount.
    - Step 1: Start
    - Step 2: Read the total_amount (X), amount to buy fruits from aichher market.
    - Step 3: Repeat the step 4 and 5 for total number of purchased items from each shop.
    - Step 4: Total_item <- total_item + purchased_item
    - Step 5: Total_expenditure <- total_expenditure + (purchased_itme * item_amount)
    - Step 6: Balance_amount <- X - total_expenditure
    - Step 7:End

5. Draw a flowchart to find the sum of first 100 natural numbers.



6. Mahima is also enrolled in python lab also. Her "Every Day" lab performance is been graded by using A, B, C, D grades. For each lab she has been given five problems, and each problem is having 2 marks. If she gets more than 8 marks then she will get 'A' grade, if it is more than 6 then the grade will be 'B', if she gets more than 4 then she will receive 'C' grade, otherwise she will be graded 'D'. Draw a flowchart to display mahima's grade.



7. Write down an algorithm to find out the factorial of N.
    - Start
    - Read number n
    - Initialize i and fact to 1
    - Repeat step 4 and step 5 while i is not equal to n
    - fact <- fact * i
    - i <- i +1
    - Return fact
    - End

8. Write an algorithm to calculate even number from 0 to 99.
    - Step 1- Start

- Step 2- Read / input the number between 0 to 99
- Step 3- if n%2==0 then number is even
- Step 4- else number is odd
- Step 5- display the output
- Step 6- End

9. Aditi is the student of EB19 batch, she is taking python class, her teacher asked her to convert a decimal number to its binary format, but she does not know how to do it. Help her understand the decimal to binary conversion using flowchart.