LAB TASK

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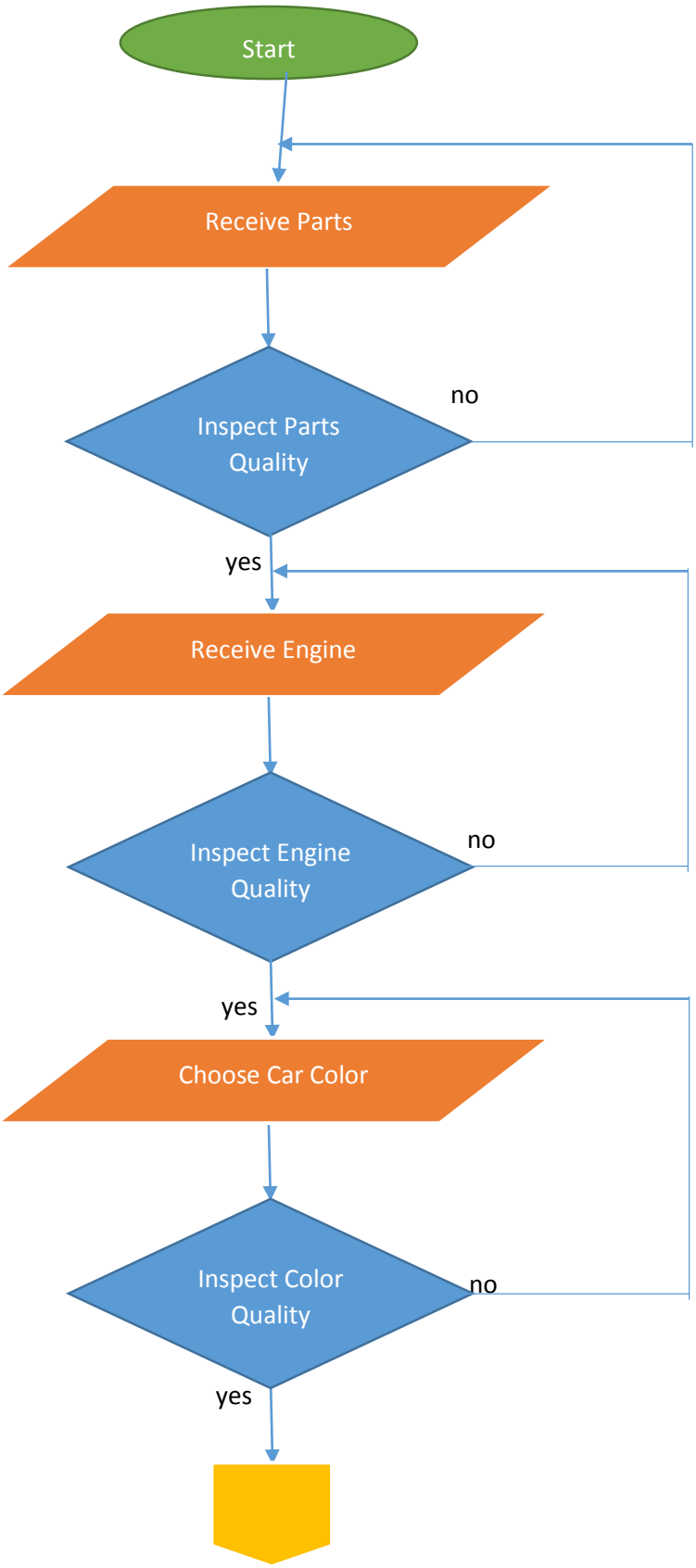
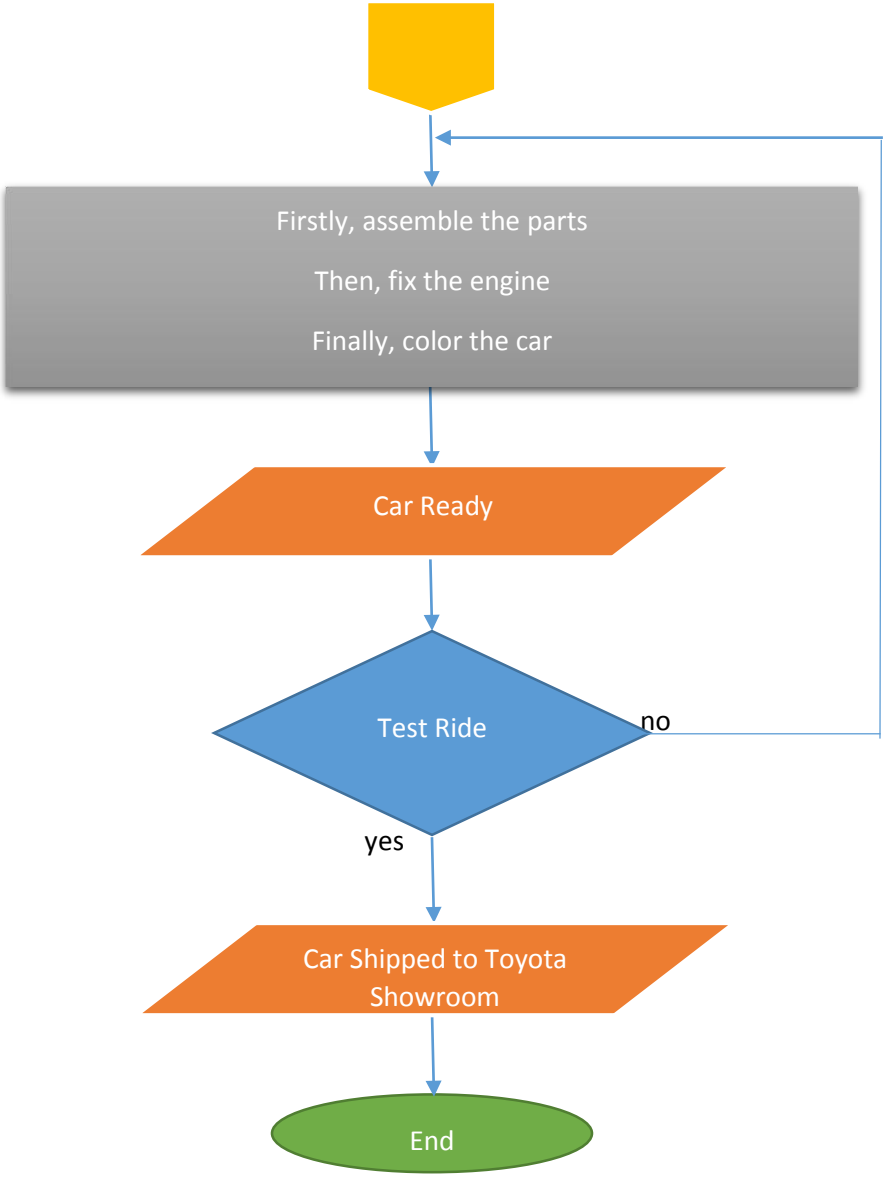
Section: BCS-2A

Course: Programming Fundamental (Lab)

1. 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.




Firstly, assemble the parts
Then, fix the engine
Finally, color the car
Car Ready
Test Ride
no
yes
Car Shipped to Toyota Showroom
End

2. Find the maximum number in any of three variables.

Pseudocode:

1. Start
2. Display “Enter three numbers:”
3. Read numbers.
4. Compare “a number” with “b number”
5. If a number>b number
   Compare “a number” with “c number”
   If
   a number>c number
   Display “a number is the greatest number”
   Else
   Display” c number is the greatest number”
   Go to step 6.
   Else
   Compare “b number” with “c number”
   If
   b number>c number
   Display “b number is the greatest number”
   Else
   Display” c number is the greatest number”
6. End

3. Take three variables as input and add them without using the + operator (Use your head for this)

Pseudocode:

1. Start
2. Display “Enter three numbers:”
3. Read numbers. N1,N2,N3.
4. Let a = -N1-N2
5. Let b = a-N3
6. Then, Ans = b*-1.
7. Display ”Result”,Ans.
8. End

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

Pseudo code:

1. Start
2. Display “Enter first number:”
3. Read first number, a.
4. Display “Enter second number:”
5. Read first number, b.
6. Display “Enter the operator being used:”
7. Read operator, operator.
8. If operator= + Then, result= a+b
   Display” The result is : ”, result.
9. Else If operator= - Then, result= a-b
   Display” The result is : ”, result.
10. Else
    Display” invalid operator.”
11. End.

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

Algorithm:

1. Display a message to enter a number between one to twelve.
2. Read the number.
3. If
   Number is 1.
   Display the message “January”
4. If
   Number is 2.
   Display the message “February”
5. If
   Number is 3.
   Display the message “March”
6. If
   Number is 4.
   Display the message “April”
7. If
   Number is 5.
   Display the message” May”
8. If
   Number is 6.
   Display the message “June”
9. If
   Number is 7.
   Display the message “July”
10. If
    Number is 8.
    Display the message “August”

11. If
    Number is 9.
    Display the message “September”

12. If
    Number is 10.
    Display the message “October”
13. If
    Number is 11.
    Display the message “November”
14. If
    Number is 12.
    Display the message “December”
15. Else
    Display the message “In valid number”.

6. Implement an algorithm for making a simple calculator with all the operators (+,-,*,/,%)

Algorithm:

1. Display a message for entering first number.
2. Read the first number, a.
3. Display a message for entering second number.
4. Read the second number, b.
5. Display a message for entering the operator being use.
6. Read the operator, operator.
7. If the operator= + Then, result= a+b
   Display the result, result.
8. Else If operator= - Then, result= a-b
   Display the result, result.
9. Else If operator= * Then, result= a*b
   Display the result, result.
10. Else If operator= / Then, result= a/b
    Display the result, result.
11. Else If operator= % Then, result= a%b
    Display the result, result.
12. Else display the message of invalid operator.