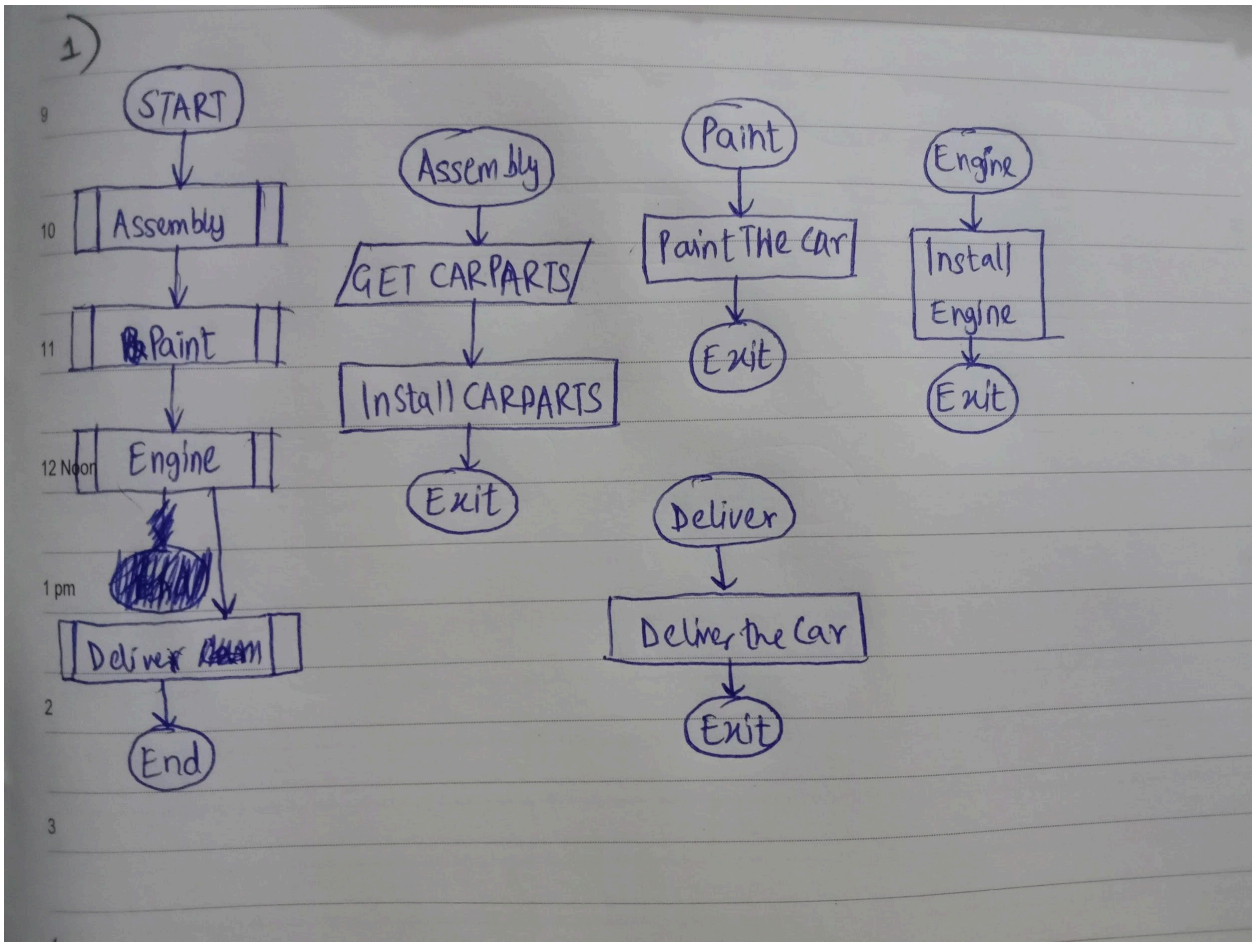
PF LAB 2 ASSIGNMENT

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.



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

START
DISPLAY “Enter Number 1”
INPUT Num1
DISPLAY “Enter Number 2”
INPUT Num2
DISPLAY “Enter Number 3”
INPUT Num3

IF (Num1 >= Num2) and (Num1 >= Num3)
  THEN DISPLAY Num1
ELSE IF (Num2 >= Num3) and (Num2>= Num1)
  THEN DISPLAY Num2

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        ELSE DISPLAY Num3
        END
END
```

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

```
START
DISPLAY “Enter Number 1”
INPUT Num1
DISPLAY “Enter Number 2”
INPUT Num2
DISPLAY “Enter Number 3”
INPUT Num3
sum = Num1 - (- Num 2) - (- Num3)
DISPLAY sum
END
```

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

```
START
DISPLAY “Enter Number 1”
INPUT Num1
DISPLAY “Enter Number 2”
INPUT Num2
DISPLAY “Enter ‘+’ or ‘-’”
INPUT Operator
IF Operator == ‘+’
  THEN PRINT Num1 + Num2
ELSE IF Operator == ‘-’
          THEN PRINT Num1 - Num2
        END
        ELSE DISPLAY “Invalid Operator”
END
```

5) Implement an algorithm for determining if an Nth is a divisor of an n Number (i.e. 2 is a divisor of 6). If so, determine if it’s an even number or odd number as well.

1. Ask the user to enter Num1
2. Ask the user to enter Num2
3. Set Remainder to (Num1 % Num2)
4. If Remainder is equal to 0 then Display Num2 is a divisor of Num1

5. If Remainder is Not 0, then Set answer to (Num1 % 2)
6. If answer is 0 then Display even
7. Else Display odd

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

1. Ask the user for a number between 1 and 12 inclusive
2. Repeat step 1, if number is not between 1 and 12
3. If the number is 1 display “January”
4. If the number is 2 display “February’
5. If the number is 3 display “March”
6. If the number is 4 display “April”
7. If the number is 5 display “May”
8. If the number is 6 display “June”
9. If the number is 7 display “July”
10. If the number is 8 display “August”
11. If the number is 9 display “September”
12. If the number is 10 display “October”
13. If the number is 11 display “November
14. If the number is 12 display “December”

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

1. Ask the user to enter Num1
2. Ask the user to enter Num2
3. Ask the user to enter an operator
4. Repeat step 3 if operator entered is other than +,-,*,/,%
5. If operator is ‘+’, then display Num1 + Num2
6. If operator is ‘-’, then display Num1 - Num2
7. If operator is ‘*’, then display Num1 * Num2
8. If operator is ‘/’, then display Num1 / Num2
9. If operator is ‘%’, then display Num1 % Num2