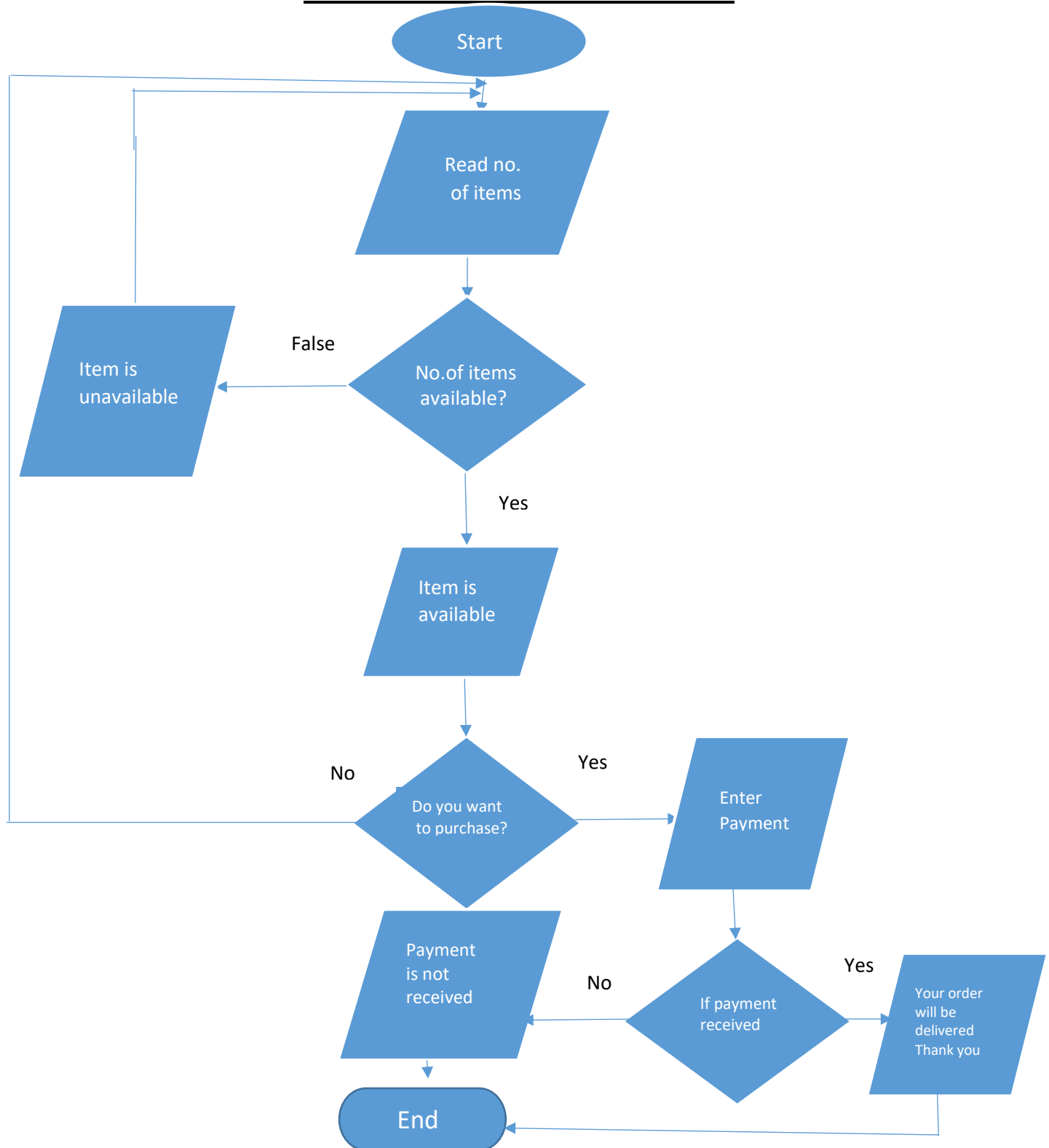


LAB 02 (TASK 01 FLOWCHART)



LAB 02(TASK 02 PSEUDOCODE)

Problem 1:

```
Start
    Input number =a
    Check if  $a \% 5 = 0$ 
        then print "it is divisible"
    Else
        print "It is not divisible".
End.
```

Problem 2:

```
Start
    Input character
    If "A" < character < "Z"
        Then print it is in upper case
    Else
        print "It is in lower case".
End
```

Problem 3:

```
Start
    Input First number = a. Input Second number =b. Input a character "+" or "*" = c.
    If c = "+"
        Then print a+b.
    If c = "*"
        Then print a*b.
End.
```

Problem 4:

```
Start
    Input number = a
    If  $a == 0$ 
        Then Print, "It is 0"
    If  $a > 0$ .
        Then print, "It is positive"
    Else:
        Print "It is negative"
End.
```

Problem 5:

```
Start
    Input age = a
    If  $13 < a < 19$ 
        Then Print "You are a teenager".
    Else: "
        Print You are not a teenager".
End.
```

LAB 02 (TASK 03 ALGORITHMS)

Problem 1:

Step1: Input Year = a
Step2: If remainder of a by 400 is zero print "It is a leap year".
Step3: If remainder of a by 4 is zero then check remainder of a by 100 is not zero then print "It is a leap year. Else print "It is not a leap year."
Step4: End

Problem 2:

Step1: Input string
Step2: Create an empty dictionary from "A" to "Z".
Step3: Check the first character of string.
Step4: If the character of string is already appeared in the dictionary increment one to its counter.
Step5: Check the next character and perform step 4 until null character is detected.
Step6: End.

Problem 3:

Step1: Input base and power.
Step2: Set answer = 1
Step3: Multiply answer and base
Step4: Decrement power
Step5: If power is not equal to zero perform step 3
Step5: End

Problem 4:

Step1: Input radius
Step2: Calculate area = πr^2
Step3: Print area.
Step4: End.

Problem 5:

Step1: Input a, b and c
Step2: Arrange them in ascending order.
Step3: Median = (3+1/2)th term
Step4: Print median

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Step4: End.