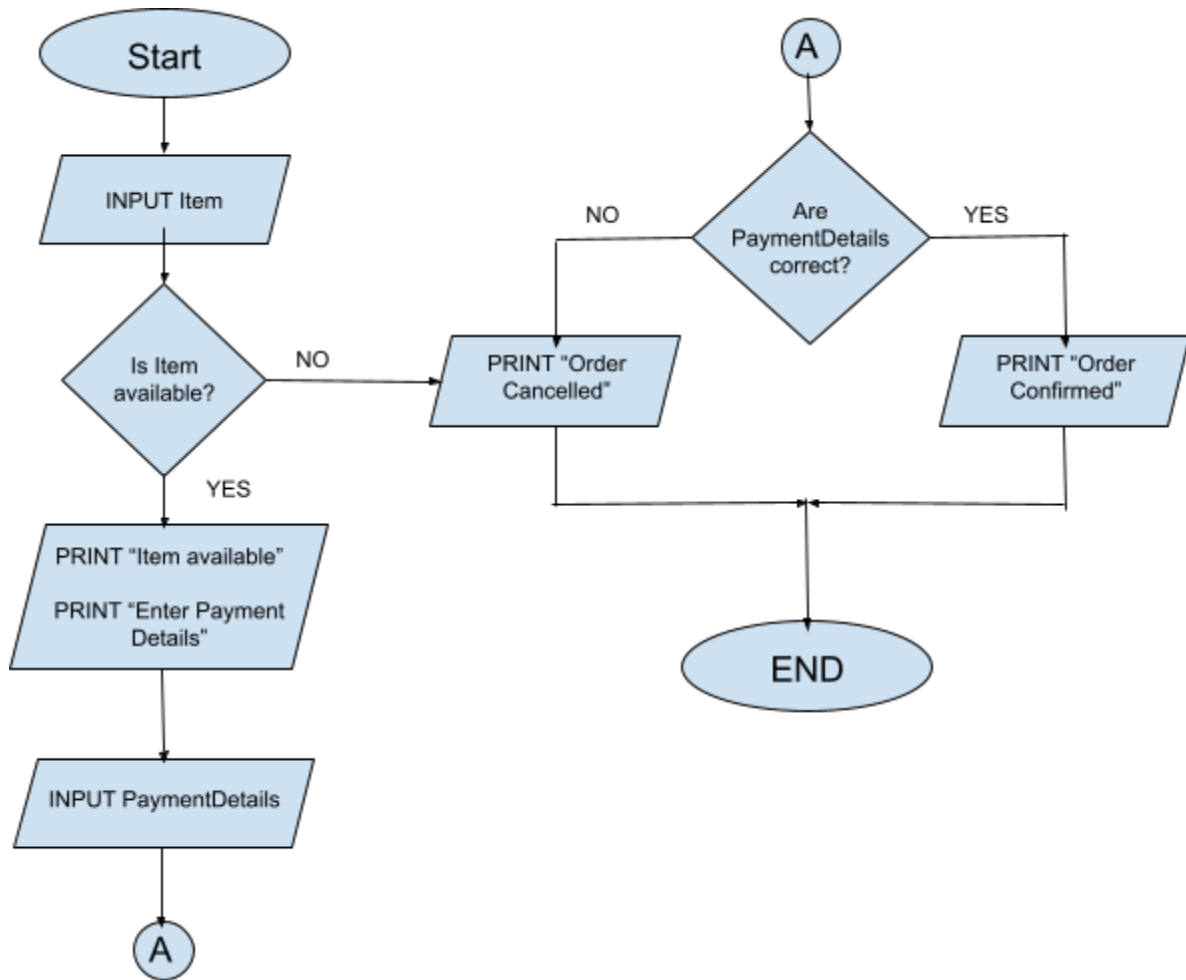


Lab 02

Flowchart



Lab Tasks 1

TASK 1:

START

INPUT number

IF number MOD 5 = 0 THEN

 PRINT "number is a multiple of 5"

ELSE

 PRINT "number is not a multiple of 5"

END

TASK 2:

START

INPUT character

IF character >= 'A' and character <= 'Z' THEN

 PRINT "character is uppercase"

ELSE

 IF character >= 'a' and character <= 'z' THEN

 PRINT "character is lowercase"

 ELSE

 PRINT "character is not a letter"

END

TASK 3:

START

INPUT number1

INPUT number2

INPUT operator

IF operator = "+" THEN

 PRINT number1 + number2

ELSE

 IF operator = "*" THEN

 PRINT number1 * number2

 ELSE

 PRINT "Invalid operator"

END

TASK 4:

START

INPUT number

IF number > 0 THEN

 PRINT "number is positive"

ELSE

 IF number < 0 THEN

 PRINT "number is negative"

 ELSE

 PRINT "number is zero"

END

TASK 5:

START

INPUT age

IF age \geq 13 and age \leq 19 THEN

 PRINT "The person is a teenager"

ELSE

 PRINT "The person is not a teenager"

END

Lab Tasks 2

TASK 1:

1. Ask the user to enter year
2. Set a to (year / 4)
3. Set b to (year / 100)
4. Set c to (year / 400)
5. If a is a whole number and b is not a whole number or if c is a whole number display "this year is a leap year"
6. Otherwise display "this year is not a leap year"

TASK 2:

1. Ask the user to enter a string
2. Set count to total number of occurrences of a character
3. Display the count to the user
4. Do this for each unique character in the string

TASK 3:

1. Ask the user to enter number base
2. Ask the user to enter number exponent
3. Set answer to $\text{base} * \text{base}(\text{exponent}-1 \text{ number of times})$
4. Display answer to the user

TASK 4:

1. Ask the user to enter radius
2. Set Area to $(3.142 * \text{radius} * \text{radius})$
3. Display Area to the user

TASK 5:

1. Ask the user to enter number1
2. Ask the user to enter number2
3. Ask the user to enter number3
4. Arrange the numbers in ascending order from smallest to largest
5. Display the middle value to the user