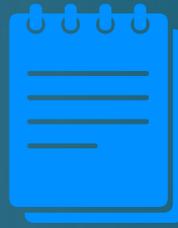
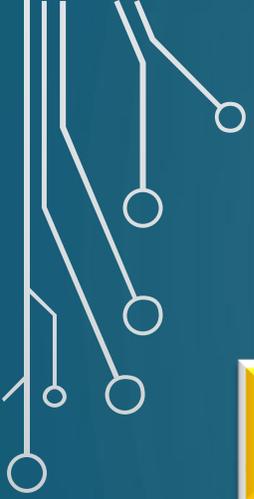


COMPUTER SCIENCE



ALGORITHM IN
PSEUDOCODE



LESSON OBJECTIVES

Students should be able to:

- Do Pseudocode and flowchart Practice

Pseudocode Problem

Duration: 5 minutes



3

Write a pseudocode that reads two numbers and multiplies them together and print out their product.

Pseudocode Problem

Duration: 3 minutes



INPUT Num1

INPUT Num2

Multi = Num1 * Num2

PRINT Multi

Pseudocode Problem with Flowchart

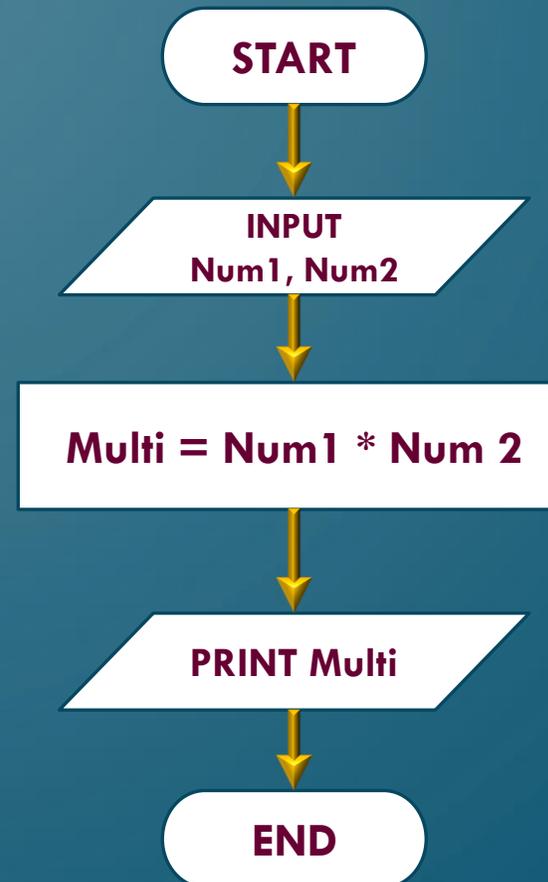
Duration: 3 minutes

INPUT Num1

INPUT Num2

Multi = Num1 * Num2

PRINT Multi



Pseudocode Problem

Duration: 5 minutes



Write pseudo code that tells a user that the number they entered is not a 5 or a 6.

Pseudocode Problem

Duration: 3 minutes



Write pseudocode that tells a user that the number they entered is not a 5 or a 6.

```
INPUT Num1
If Num1 = 5 then
    Print "Your number is 5"
ELSEIF Num1 = 6 then
    Print "Your number is 6"
ELSE
    PRINT "Your number is not 5 or 6"
ENDIF
```

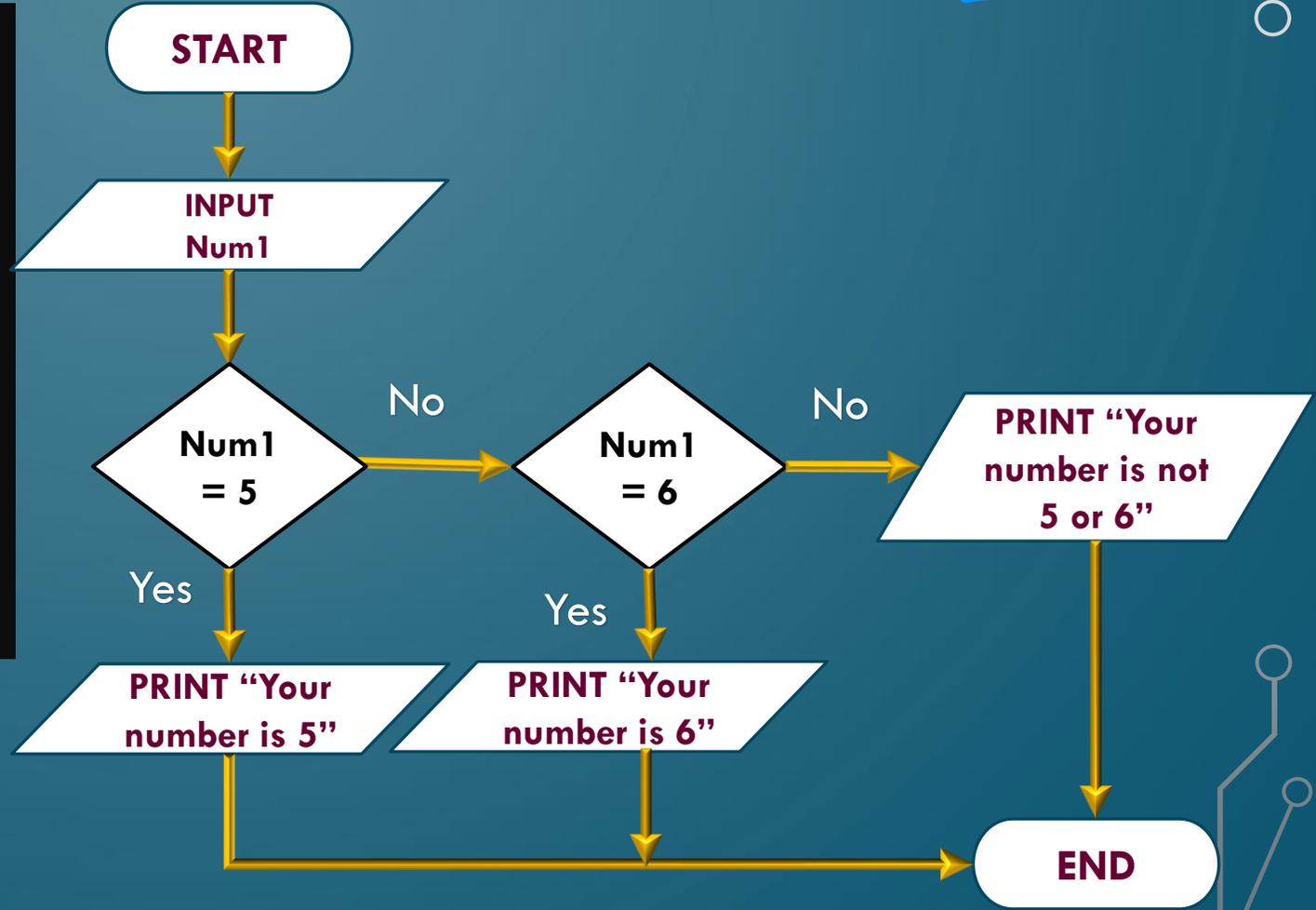
Pseudocode Problem with Flowchart

Duration: 3 minutes



8

```
INPUT Num1
If Num1 = 5 then
    Print "Your number is 5"
ELSEIF Num1 = 6 then
    Print "Your number is 6"
ELSE
    "Your number is not 5 or 6"
ENDIF
```



Pseudocode Problem

Duration: 5 minutes



Find the biggest of 3 inputted numbers
(if else statement)

Pseudocode Problem

Duration: 5 minutes

Find the biggest of 3 inputted numbers (if else statement)



```
INPUT num1
INPUT num2
INPUT num3
IF num1>num2 AND
num1>num3 THEN
    OUTPUT num1+ "is higher"
```

```
ELSE IF num2 > num3 THEN
    OUTPUT num2 + "is
higher"
ELSE
    OUTPUT num3+ "is higher"
ENDIF
```

Pseudocode Problem

Duration: 5 minutes



Print Numbers from 1 to 100
FOR ... TO... NEXT statement

Pseudocode Problem

Duration: 5 minutes



Print Numbers from 1 to 100 (FOR ... TO... NEXT statement)

```
FOR counter = 1 TO 100 STEP 1 DO
    PRINT counter
NEXT
```

Pseudocode Problem

Duration: 5 minutes



Write a keyboard WSAD keys movement code using the CASE statement, a BEEP will sound when other keys are pressed.

Pseudocode Problem

Duration: 5 minutes

Write a keyboard WSAD keys movement code using the CASE statement, a BEEP will sound when other keys are pressed.

INPUT Move

CASE Move OF

'W': Position \leftarrow Position - 10

'S': Position \leftarrow Position + 10

'A': Position \leftarrow Position - 1

'D': Position \leftarrow Position + 1

OTHERWISE : Beep

ENDCASE



Activity-1

Duration: 20 minutes

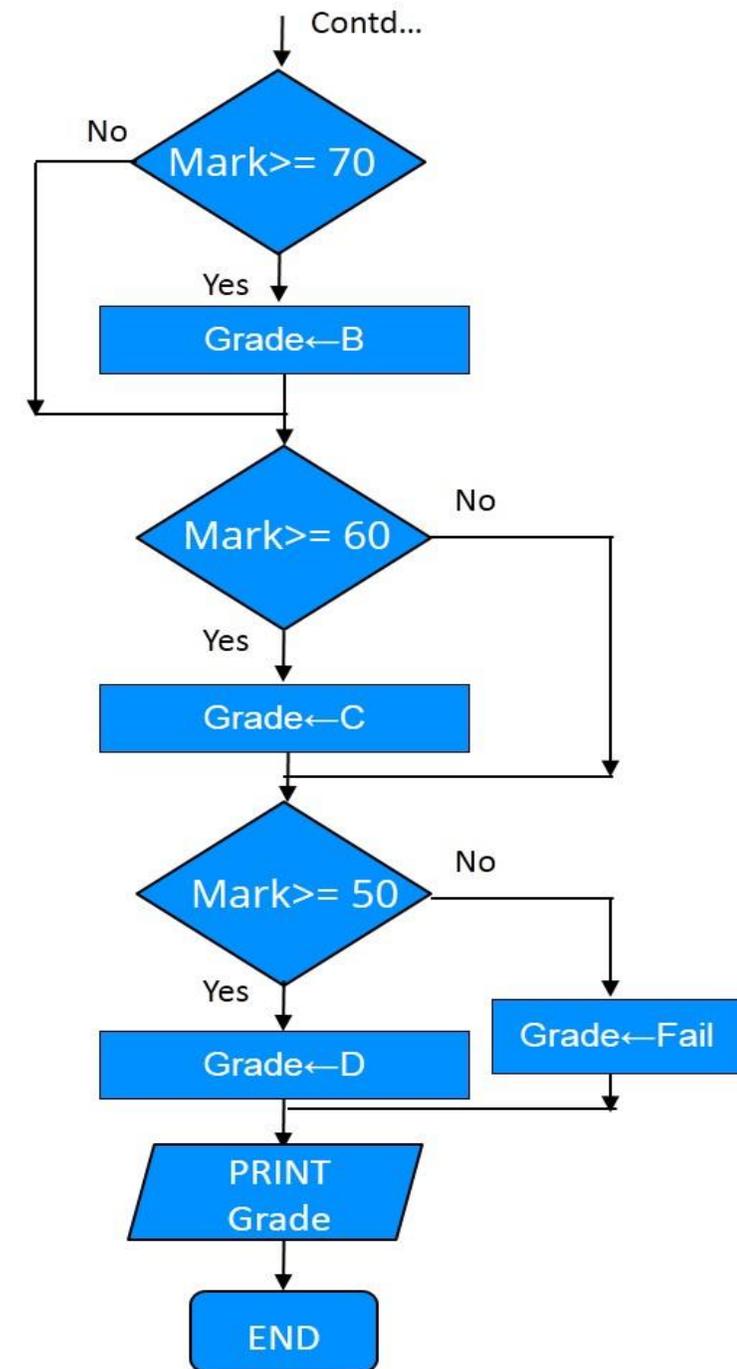
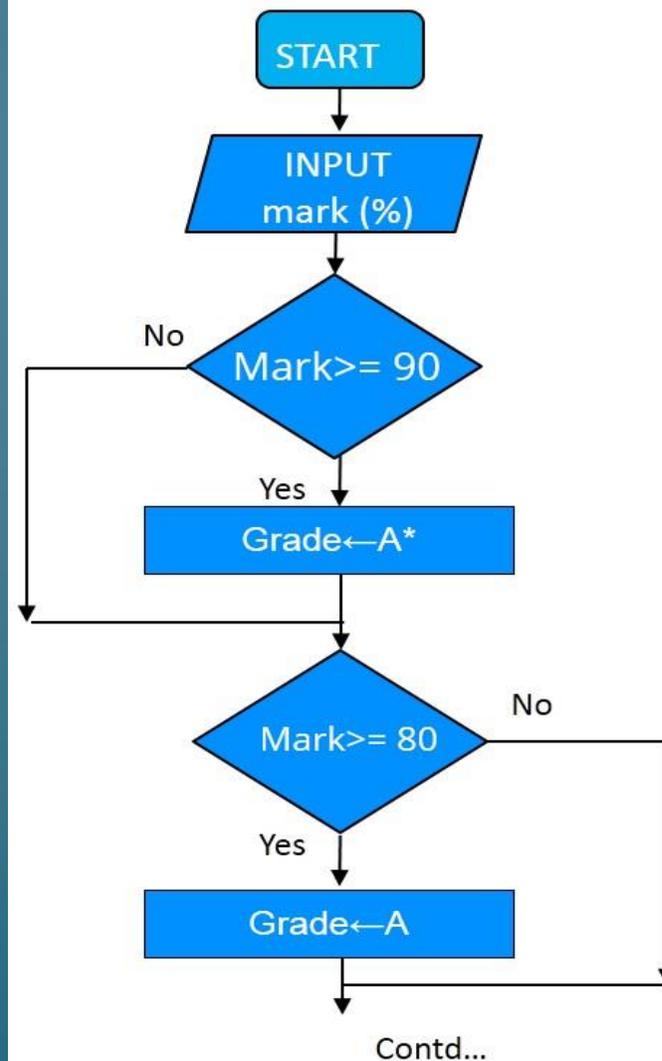
1. Software is designed to calculate grades of students according to the marks scored. The grades for marks scored are given in the table.

Create the pseudocode and flowchart of the algorithm.

Marks (%)	Grade
90-100	A*
80-89	A
70-79	B
60-69	C
50-59	D
Below 50	Fail

ACTIVITY 1 ANSWER

Marks (%)	Grade
90-100	A*
80-89	A
70-79	B
60-69	C
50-59	D
Below 50	Fail



ACTIVITY-2

DURATION: 15 MINUTES



17

1. Create a flowchart and pseudocode for an algorithm to calculate factorial of a number.

ACTIVITY 2 ANSWER

Create a flowchart and pseudocode for an algorithm to calculate factorial of a number.

Pseudocode:

```
Input num  
count ← 1  
fact ← 1  
    While (count < num) Do  
        fact = fact × count  
        count = count + 1  
    endwhile  
Print fact
```

ACTIVITY 2 ANSWER

Create a flowchart and pseudocode for an algorithm to calculate factorial of a number.

Pseudocode:

Input num

count ← 1

fact ← 1

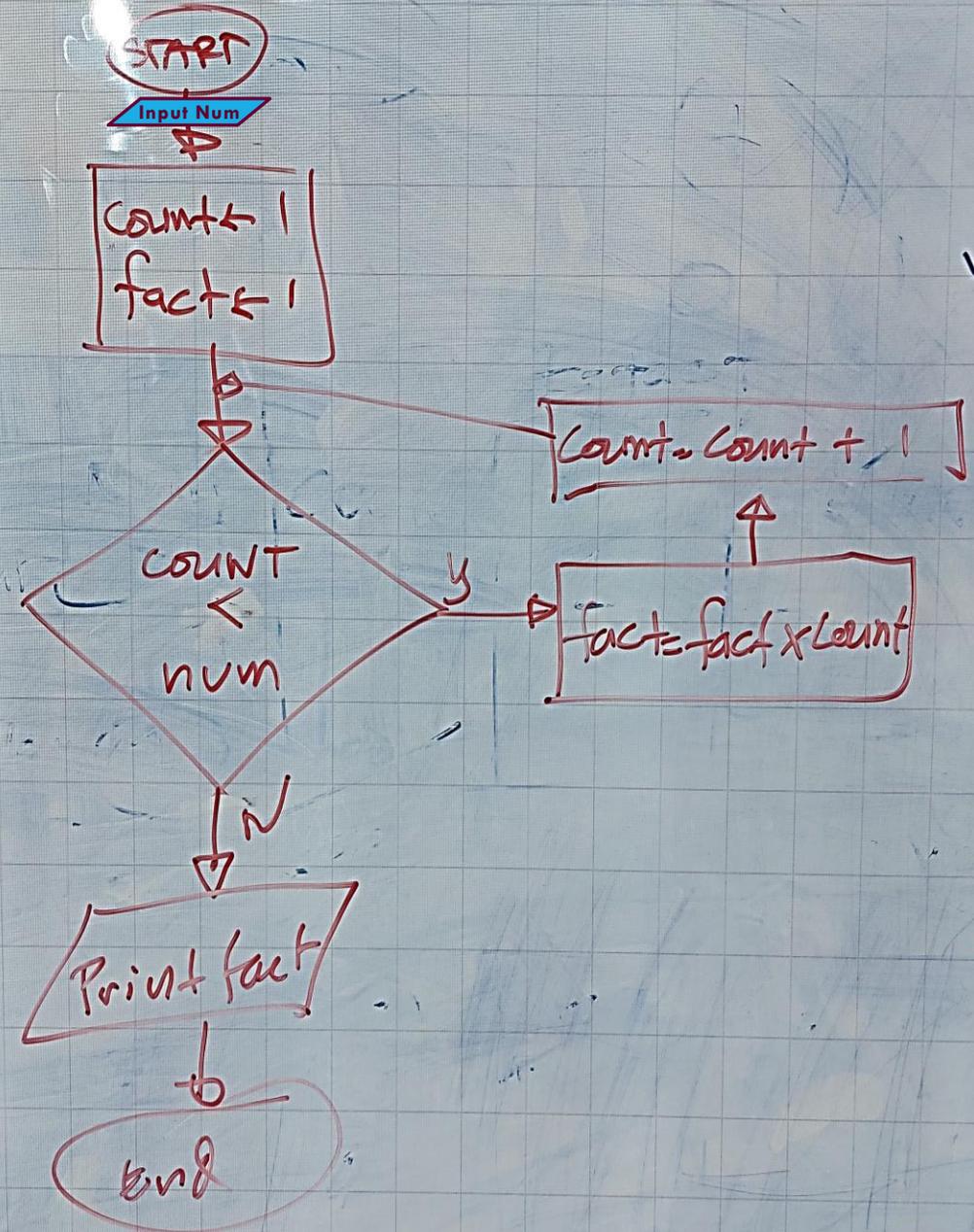
While (count < num) Do

fact = fact × count

count = count + 1

endwhile

Print fact

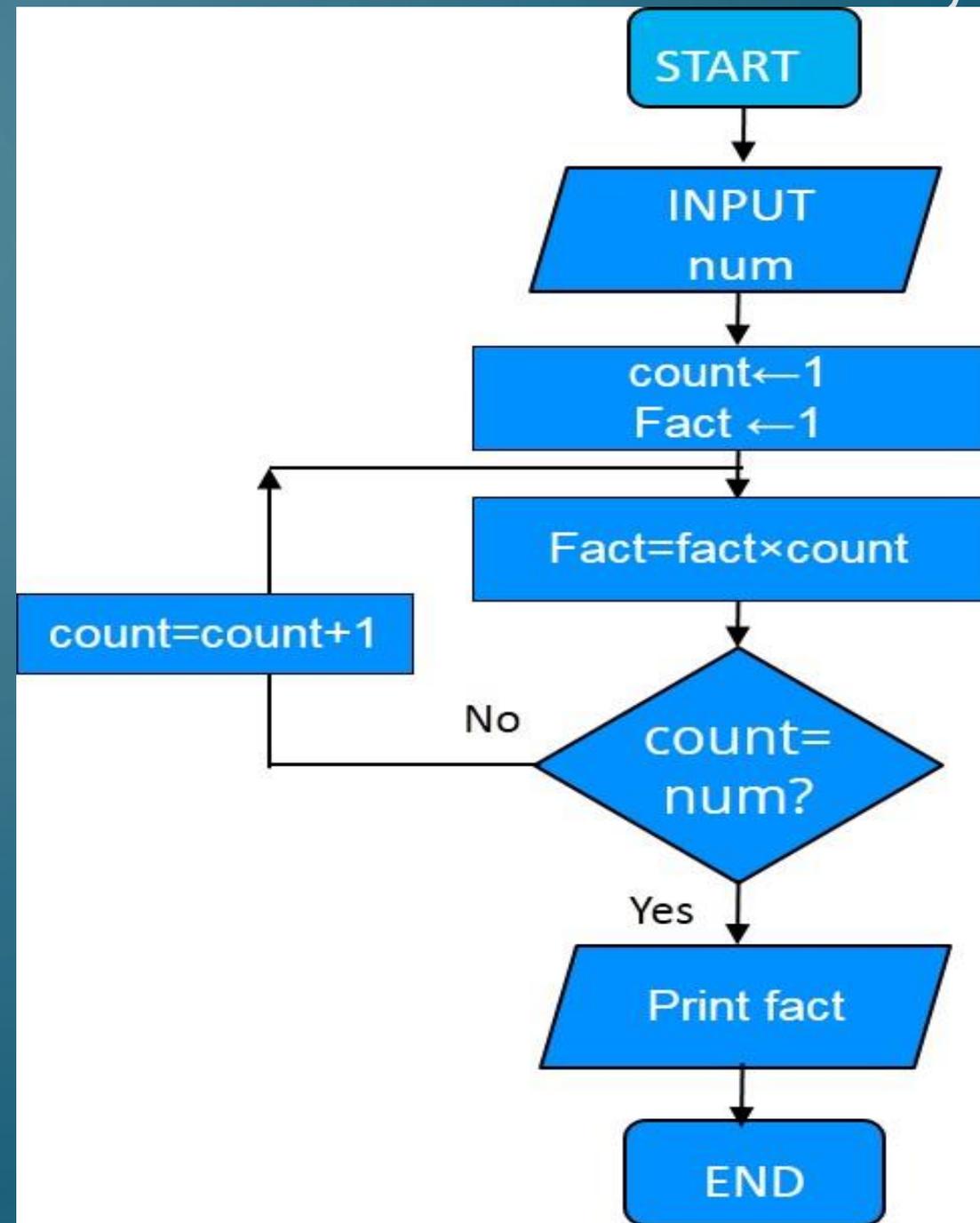


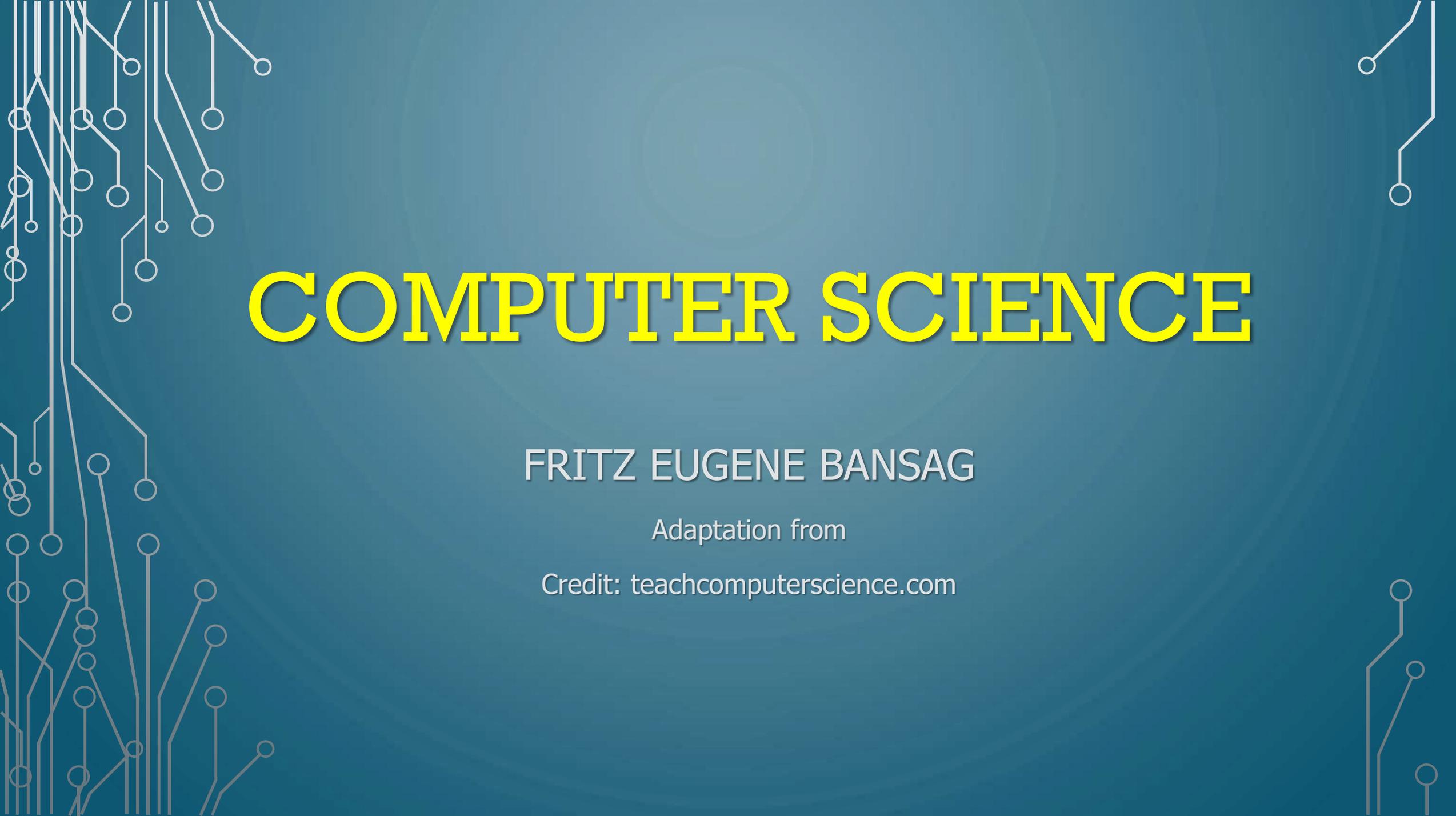
ACTIVITY 2 ANSWER

Create a flowchart and pseudocode for an algorithm to calculate factorial of a number.

Pseudocode:

```
Input num  
count ← 1  
fact ← 1  
While (count < num) Do  
    fact = fact × count  
    count = count + 1  
endwhile  
Print fact
```



The background is a solid blue color. In the center, there is a faint, light blue globe. The title 'COMPUTER SCIENCE' is written in large, bold, yellow capital letters with a slight shadow effect. The author's name 'FRITZ EUGENE BANSAG' is in white, bold, capital letters. Below it, 'Adaptation from' and 'Credit: teachcomputerscience.com' are in a smaller white font. The left and right sides of the image are decorated with white circuit-like lines and nodes.

COMPUTER SCIENCE

FRITZ EUGENE BANSAG

Adaptation from

Credit: teachcomputerscience.com

The background is a solid teal color. In the four corners, there are white line-art graphics that resemble circuit board traces or neural network connections. These graphics consist of straight lines of varying lengths and angles, ending in small white circles. The top-left and bottom-left graphics are more complex, with multiple lines branching out. The top-right and bottom-right graphics are simpler, with fewer lines.

THANK YOU

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- mail@febstar.com