Day1-Exercise-Assignment-Shintu Kumar

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Assignment 1: Pseudocode Development - Task: Write a detailed pseudocode for a simple program that takes a number as input, calculates the square if it's even or the cube if it's odd, and then outputs the result. Incorporate conditional and looping constructs.

Start

print " Enter a number "

input number

if ( number % 2 == 0 )

print "Even" +(number\*number)

else

print "Odd"+ (number\*number\*number)

end loop

end

Assignment 2: Flowchart Creation - Design a flowchart that outlines the logic for a user login process. It should include conditional paths for successful and unsuccessful login attempts, and a loop that allows a user three attempts before locking the account.

Machine generated alternative text:
attemps 
Lock the 
account 
Login 
Successful 
Login 
unsuccessful 

Assignment 3: Function Design and Modularization - Create a document that describes the design of two modular functions: one that returns the factorial of a number, and another that calculates the nth Fibonacci number. Include pseudocode and a brief explanation of how modularity in programming helps with code reuse and organization.

Start ( Factorial)

declare variable fact = 1

print " Enter a number "

input number

for(i=1; i<=number ; i++)

fact = fact\*i

print ("Factorial is: "+ fact)

end

Start (Fibonacci)

declare num1=0, num2=1, num3, number;

print " enter a number"

input number

for( i=2; i<=number; i++)

num3 = num1+num2;

print " num3 "

num1 = num2

num2 = num3

End loop

End