ASSIGNMENT-1.

1 → Prompt user to enter a no. and store it in 'number'

2 → Read 'number' from the user.

3 → If 'number' is even, then:

3.1 → calculate the square of 'number' & store it in 'result'.

3.2 → Display 'result'.

4 → Otherwise (if 'number' is odd), then:

4.1 → calculate the cube of 'number' & store it in 'result'.

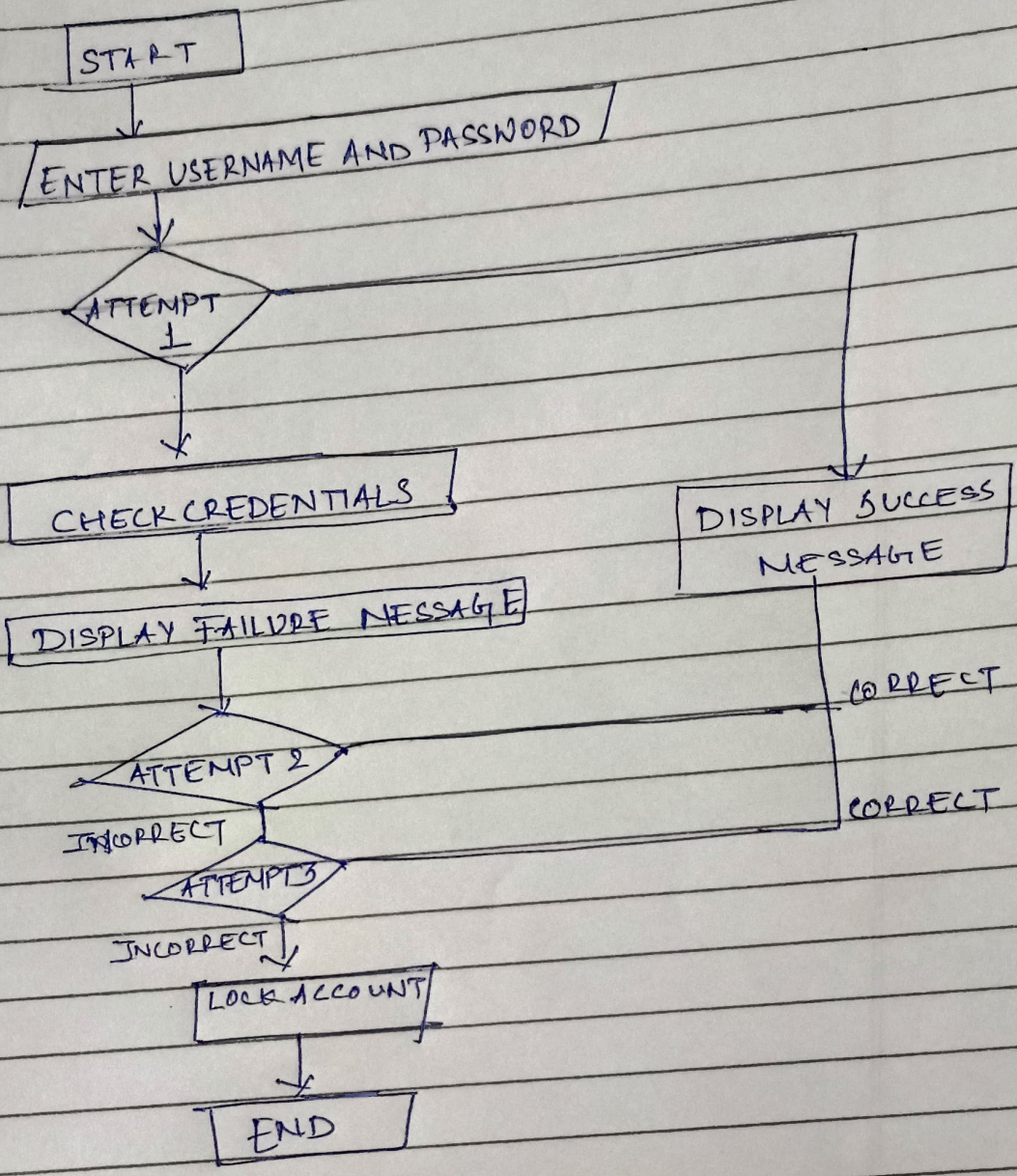
4.2 → Display 'result'.

5 → Prompt the user if they want to continue.

6 → If yes, repeat steps 1–5.

7 → If no, end the program.

ASSIGNMENT 2.



ASSIGNMENT 03

Modularity in programming :- it is concept of breaking down a program into smaller, independent and reusable modules enhancing it helps with code reuse and organisation in several ways.

→ code reusability
→ organization
→ Debugging & Testing
→ collaboration.

Assignment - 03

factorial :-

```
function factorial ( number)
    if number == 0
        return 1
    else
        result = 1.
    for i from 1 to number
        result = result * i
    return result.
```

Or

fibonacci :- Each number is the sum of the two previous ones

```
function fibonacci (n)
    if n == 0
        return 0
    else if n == 1
        return 1.
    else
        fib = [0,1]
        for i from 2 to n
            fib[i] = fib[i-1] + fib[i-2]
        return fib[n]
```