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Problem 13 : The general $N-M-L$ size die hard jug problem
Understood : can take any odd consecutive n.o of jugs and have to achieve
specific amount of water, which can change everytime.

Solution : so any amount of water can be extracted if that is
multiple of GCD of M and N and ~~less~~ the ans is less than the maximum
of the two jugs.

Pseudocode :

function GCD (M, N)

while $N \neq 0$

temp = N

$N = M \text{ MOD } N$

$M = \text{temp}$

return N

$g = \text{GCD}(M, N)$

IF target % $g \neq 0$ THEN

OUTPUT "target exceeds jug capacity"

IF target > max (M, N) THEN

OUTPUT "Target exceeds jug capacity"

jug M = 0 jug N = 0

while jug M != target and jug N != target

IF jug M > 0 THEN

jug M = M

pour amount = min (jug M , $N - \text{jugN}$)

jug M = jug M - pour amount

jug N = jug N + pour amount

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IF jug N == N THEN

jugN = 0

~~ELSE IF jugM == 0~~
~~jugM~~

ELSE IF jugM == target or jugN == target

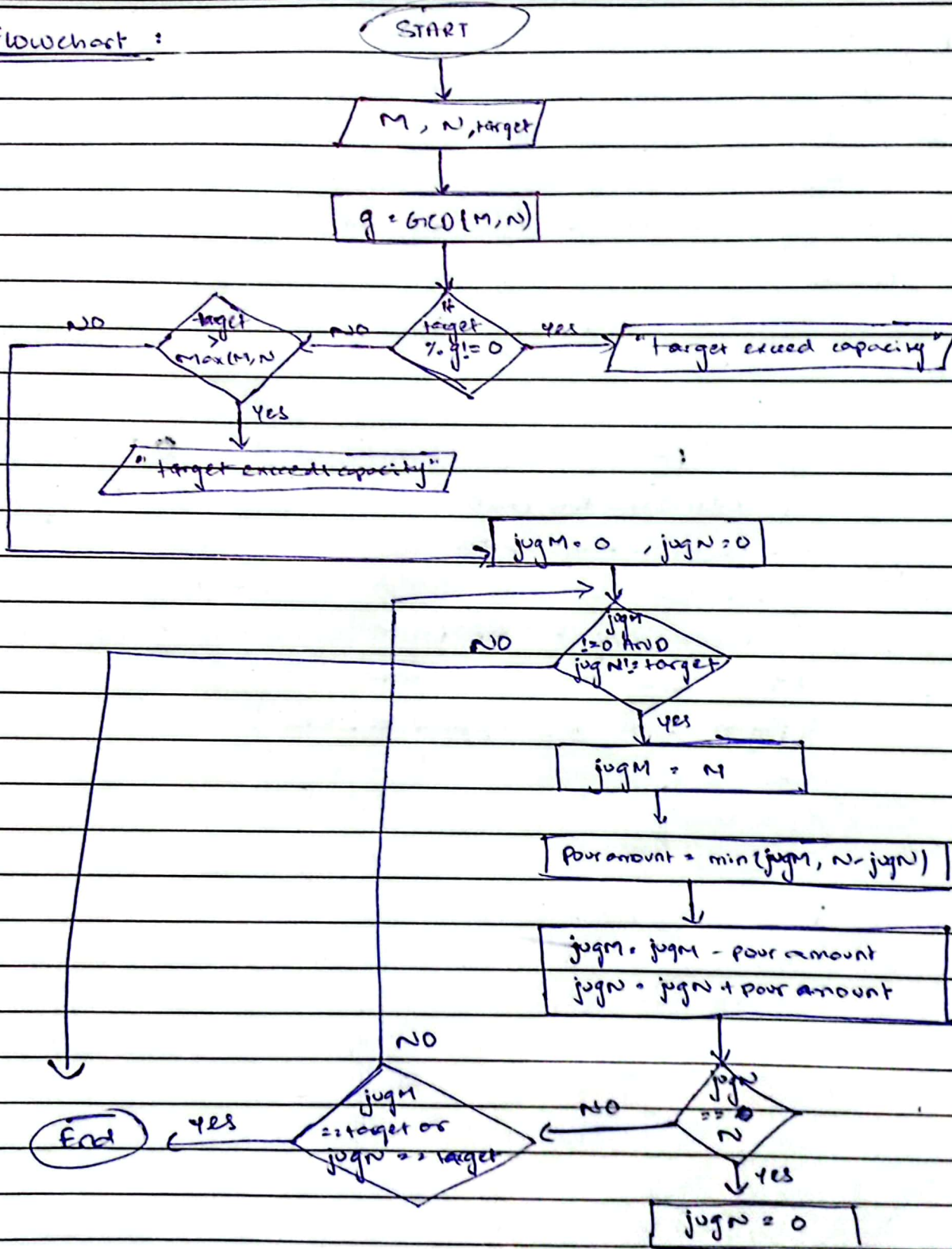
break

IPO chart

INPUT	Process	OUTPUT
<ul style="list-style-type: none">- Input the jug capacity and target liters to achieve	<ul style="list-style-type: none">- calculate the GCD- Check if target liters can be reached.- Repeatedly fills the jug M if it's empty and pours from jug M to N and empties N when full.	<ul style="list-style-type: none">- Invalid target liters- target amount reached.

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Flowchart :



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