**Practical No : 01**

**Problem Statement:**

Implement the Water Jug Problem using any algorithm. Formulate a generic program and. give valid inputs for the sizes of the jugs and the goal state

Example : sizes of jugs (m,n) = (4,3) and goal as (d,0) where

d = 2 (2 liters water in the 4 gallon jug).

**Code:**

def jug(c1, c2, c):

#initialization

n1, n2 = 0, 0

print(n1,n2)

while n1 != c and n2 != c:

#empty

if n1 == 0:

n1 = c1

#full

elif n2 == c2:

n2 = 0

else:

#water from jug 1 to jug 2

amount = min(n1, c2 - n2)

n1 -= amount

n2 += amount

print(n1, n2)

#Example Usage

c1, c2 = 5, 9

c = 3

jug(c1, c2, c)

**Output:**

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