# Water Jug Problem - Explanation and Output

## 1. Explanation of the Code

The Water Jug Problem is a classic problem that can be solved using the Breadth-First Search (BFS) approach. The goal is to measure a specific amount of water using two jugs with given capacities. The algorithm follows these steps:  
1. Start with both jugs empty (0,0).  
2. Use a queue to explore all possible states of the jugs.  
3. For each state, generate new possible states by performing operations like:  
 - Filling a jug to its full capacity.  
 - Emptying a jug completely.  
 - Pouring water from one jug to another without spilling.  
4. If any of these states match the target amount, the solution is found.  
5. If a state is repeated, it is skipped to avoid loops.  
6. The algorithm stops when it finds a solution or determines that no solution exists.

## 2. Screenshot of Output

