**Problem:** There are two jugs of **volume A litre** and **B litre.** Neither has any **measuring mark** on it.There is a pump that can be used to fill the jugs with water.How can you get exactly **x litre** of water into the **A litre jug.**Assuming that we have unlimited supply of water.

Let's assume we have  **A=2 litre and B= 1 litre jugs**. And **we want exactly 1 Litre water into jug 1 (i.e 4 litre jug)** how we will do this.

Let's assume we have  **A=4 litre and B= 3 litre jugs**. And **we want exactly 2 Litre water into jug A (i.e 4 litre jug)** how we will do this.

Implement the water jug problem to find the path from initial state to goal state