

Computer Science and Engineering Department

Artificial Intelligence (UCS-411)

Lab Assignment-2

1	Given two jugs- a 4 litre and 3 litre capacity. Neither has any measurable markers on it. There is a pump which can be used to fill the jugs with water. Simulate the procedure in Python to get exactly 2 litre of water into 4-litre jug																		
2	Given three jugs: 12, 8 and 5 liter capacities. Largest jug is completely filled. Using these 3 jugs, split the water to obtain exactly 6 liter in largest jugs.																		
3	<p>Write a code in python for the 8 puzzle problem by taking the following initial and final states</p> <div><div>Initial State</div><table><tr><td>1</td><td>2</td><td>3</td></tr><tr><td>8</td><td></td><td>4</td></tr><tr><td>7</td><td>6</td><td>5</td></tr></table></div> <div><div>Goal State</div><table><tr><td>2</td><td>8</td><td>1</td></tr><tr><td></td><td>4</td><td>3</td></tr><tr><td>7</td><td>6</td><td>5</td></tr></table></div>	1	2	3	8		4	7	6	5	2	8	1		4	3	7	6	5
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2	8	1																	
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4	<p>Write a Python program to implement Travelling Salesman Problem (TSP). Take the starting node from the user at run time.</p> 																		