MAP COLORING TO IMPLEMENT CSP :

**colors = ['Red', 'Blue', 'Green', 'Yellow', 'Black']**

**states = ['Andhra', 'Karnataka', 'TamilNadu', 'Kerala']**

**neighbors = {}**

**neighbors['Andhra'] = ['Karnataka', 'TamilNadu']**

**neighbors['Karnataka'] = ['Andhra', 'TamilNadu', 'Kerala']**

**neighbors['TamilNadu'] = ['Andhra', 'Karnataka', 'Kerala']**

**neighbors['Kerala'] = ['Karnataka', 'TamilNadu']**

**colors\_of\_states = {}**

**def promising(state, color):**

**for neighbor in neighbors.get(state):**

**color\_of\_neighbor = colors\_of\_states.get(neighbor)**

**if color\_of\_neighbor == color:**

**return False**

**return True**

**def get\_color\_for\_state(state):**

**for color in colors:**

**if promising(state, color):**

**return color**

**def main():**

**for state in states:**

**colors\_of\_states[state] = get\_color\_for\_state(state)**

**print (colors\_of\_states);**

**}**