**Map Coloring Using CSP – Horn of Africa**

This assignment solves the Horn of Africa map coloring problem using a Constraint Satisfaction Problem (CSP) approach. The goal is to assign colors to each country such that no two adjacent countries share the same color, ensuring a valid map coloring with minimal colors.

* **Variables**:  
  The variables are the seven countries in the Horn of Africa: Ethiopia, Kenya, Sudan, Somalia, Eritrea, Djibouti, and South Sudan.
* **Domain**:  
  Each country has the same domain of possible colors: ["Red", "Green", "Blue", "Yellow"], as specified by the problem’s four-color limit.
* **Constraints**:  
  No two neighboring countries can share the same color. Neighbor relationships are defined in an adjacency dictionary (e.g., Ethiopia borders Eritrea, Djibouti, Somalia, Kenya, Sudan, and South Sudan). The algorithm checks each country’s neighbors to ensure no shared colors, enforcing the CSP constraint.

The solution uses a recursive backtracking algorithm to systematically assign colors. It tries a color for each country, checks constraints, and proceeds to the next country. If a constraint is violated, it backtracks to try alternative colors, ensuring all assignments satisfy the CSP constraints. This approach guarantees a valid coloring if one exists.