

# 1 Task

You are the lead event planner for a high-stakes diplomatic gathering among 8 nations: Federated States of Columbia, Zhonghua, Tsardom of Vostok, Union of Albion, Republic of Lurette, Sundhara, Kingdom of Verde, and Zayrad. Your most critical task is arranging the seating at a circular table  $(S_1, S_2, \dots, S_8)$  for the 8 influential ambassadors representing each country. The table is circular, meaning seat  $S_8$  is adjacent to  $S_1$ . The following constraints must be satisfied:

- The ambassador from the Federated States of Columbia, as the host nation's representative, must be seated at the first seat.
- The ambassador from the Federated States of Columbia cannot be seated next to the ambassadors from the Tsardom of Vostok, Zhonghua, or Zayrad.
- The ambassador from Sundhara cannot be seated next to the ambassador from Zhonghua.
- The ambassador from the Federated States of Columbia must sit next to the ambassador from the Union of Albion or the Republic of Lurette.
- The ambassador from Kingdom of Verde needs to be seated next to at least one ambassador who can facilitate communication (Federated States of Columbia, Republic of Lurette, Sundhara, or Zayrad).
- No more than two ambassadors from the permanent members of the Global Handshake Syndicate's (GHS) Security Council (Federated States of Columbia, Zhonghua, Tsardom of Vostok, Union of Albion, Republic of Lurette) can be seated in any consecutive sequence of three seats.