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Project Report for Algorithm 2: Connecting Pairs of Persons

The objective of this assignment is to design an algorithm that efficiently arranges couples seated in a row with the minimum amount of swaps. Within the program, an array is made where each pair of seats is reserved for a couple, with the main goal being to have all of the correct couples sitting together with the least amount of swaps. The algorithm uses an unordered map to track the positioning of each person in the row and iterates through the rows to find paired seats. Once the number of paired seats are identified, the algorithm will then find the correct partner and continuously swap the positions of people until the correct couple is made. If the couple is already seated together correctly, then the loop will iterate through other rows to continuously swap the positions of people until they are with their right partner.