# The Dishonest Casino

**Solution**

The problem is essentially equivalent to the decoding of multi-string BWT. The initial sequence of cards were constructed by sorting all the rotations of the upcoming sequences issued each player. Therefore, the initial sequence of cards can be first sorted (i.e., 2379JK) and appended to the initial sequence (i.e., 39J2K7), which reconstruct the prefixes (with length two) of all rotations (i.e., 32, 93, J7, 29, KJ, JK). By recursively repeating this sorting and appending process, all the rotations of upcoming sequences can be reconstructed. Given the extra indices of upcoming sequences issued to each player (e.g., 2, 5), we can know the upcoming sequences ((3, 2, 9) and (J, 7, K)) and concatenate them for output.