D - Super Takahashi Bros. Editorial by en_translator

This problem can be considered as a shortest path problem.

Regarding each stage as a vertex and an action at each station as an edge, this problem essentially asks: there is a graph with N vertices numbered $1, 2, \ldots, N$, and with edges from vertex i to vertex $(i+1)$ of cost A_i, and from vertex i to vertex X_i with cost B_i. What is the minimum cost required to travel from vertex 1 to vertex N?

This is nothing but a shortest path problem, so one can solve it using Dijkstra's algorithm in a total of $O(N \log N)$ time.

Figure: the graph corresponding to sample input 1