To answer all queries in $O(\Delta)$ time provided $\frac{cn}{\Delta}$ extra time. Using array for rank query with Δ milestone as given in code also.

Binary search on milestones with linear search will take total cost $O\left(\log_2 \frac{n}{\Delta} + \Delta\right)$ This bound will need $\frac{n}{\Delta}$ space & worst search time is $O(\Delta)$.