

Problem: [Laptops](#). *Soln.*

Let $q[a[i]] = b[i]$ for all $0 \leq i < n$. Now sort a in increasing order, i.e $a[j] < a[j + 1]$ for all $0 \leq j < n - 1$. Note that $a[j]$ and $b[j]$ are distinct, respectively. Then the first laptop with $a[j]$ for which $q[a[j]] > q[a[j + 1]]$ gives us the second laptop with $a[j + 1]$, since this pair also satisfies $a[j] < a[j + 1]$. Thus, if $q[a[i]]$ is not sorted, print "Happy Alex". Otherwise print "Poor Alex."