

C-11.4

Modify the `KMPMatch()` algorithm to maintain a variable *maxIndex* which is the index of the longest prefix found, *maxLen* which is the length of the longest prefix found, and *currentLen* which is the length of the current prefix. Initialize all three variables to zero and modify the loop in `KMPMatch()` as follows:

- If $T[i] = P[j]$, increment *currentLen*
- If $T[i] \neq P[j]$ and $j > 0$, if *currentLen* > *maxLen*, then set *maxLen* = *currentLen* and *maxIndex* = $i - j$. In any case, reset *currentLen* = 0.

When the algorithm terminates, *maxIndex* and *maxLen* will hold the location and length of the longest prefix.