**LIS vs LCS**

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**LIS pseudo**

**Void LIS(string str1,string str2){**

**Set a vector array to put the str1 char;**

**Turn LCS to LIS;**

**Use binary search to optimize LIS to find the longest increasing subsequence;**

**Use a pos[] array to record the position and the char to the correspond position to str1;**

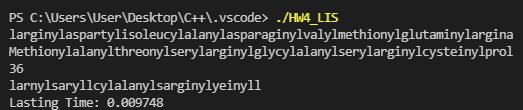
**Trace back;**

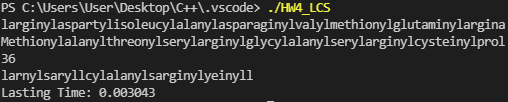
**}**

**時間複雜度**

**O(nlogn)**

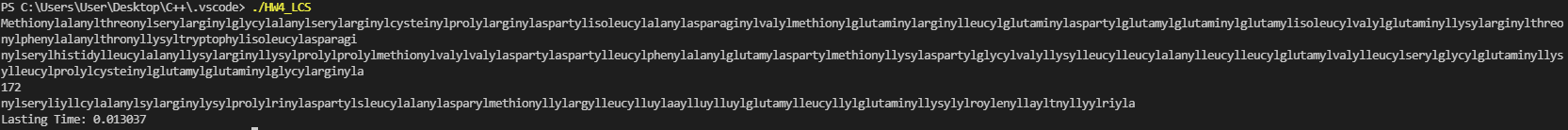
**LIS VS LCS的比較**

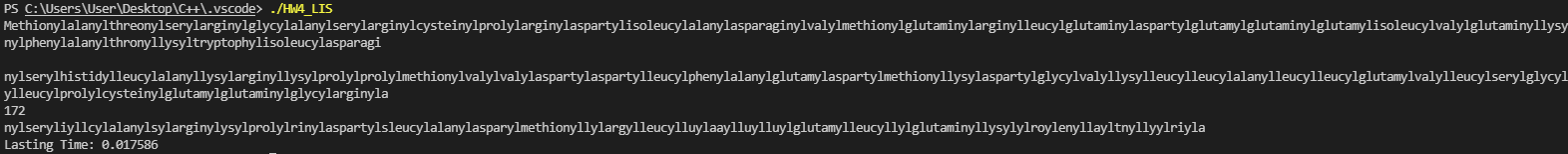
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**中長度，且較密集時 LCS 相對較快一些**

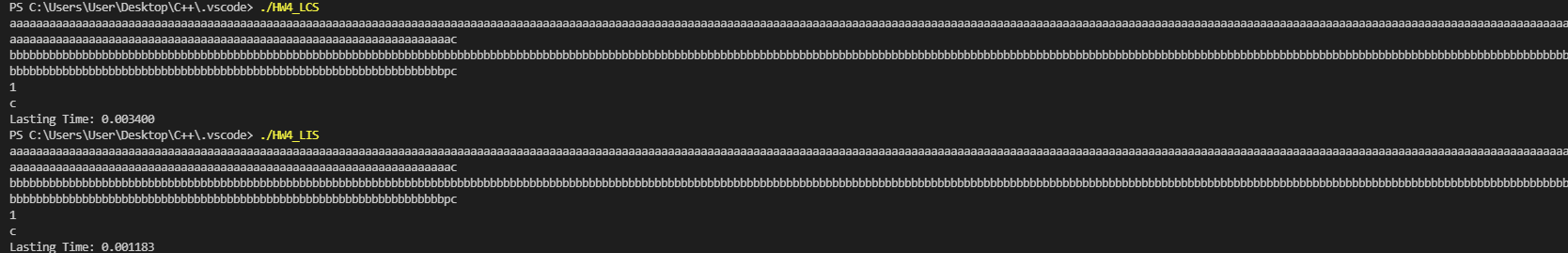
**時間差 : -0.006705秒**

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**大長度，且較密集時 LCS 依然相對較快一些**

**時間差 : -0.004549秒**

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**大長度，但較鬆散時 LIS 明顯較快**

時間差 : 0.002217秒