# HW9 Requirement

# Keyword

- A keyword is a tuple of [String name, Integer count]

- For example:
  ```
  {
      name: "Fang",
      count: 3
  }
  ```

- A key word should output in format **[name,count]** :

[Fang,3]

# Requirements

- Maintain a keyword list, and implement the LCS algorithm

- For the list structure, you can
    - Use java.util.ArrayList
    - java.util.LinkedList
    - Or develop it by yourself

# I/O Example: add

- Input:
  - Token1 : a constant "add"
  - Token2 : keyword name **k**
  - Token3: keyword count **c**
  - **EX:**

    ```
    add Fang 3
    ```

- **To do:** Insert a keyword **[k,c]** to the list

- **Output:**
  - Simply output a line of constant "**Done**"
  - EX:

    ```
    Done
    ```

# I/O Example: find

- Input:
  - Token1 : a constant "find"
  - EX:

    ```
    find
    ```

- **To do**: Find and output the most similar keyword by using the LCS algorithm

- **Output:**
  - If heap is empty, simply output a line of "InvalidOperation":

    ```
    InvalidOperation
    ```

  - If it is legal to peek:

    ```
    Done
    ```

# Sample Test Data (Input)

- add Fang 3

- add Yu 5

- add NCCU 2

- add UCSB 1

- add Management 4

- add Information 5

- find NTU

- find Manager

# Sample Test Data (Output)

- NTU: [NCCU, 2]

- Manager: [Management, 4]