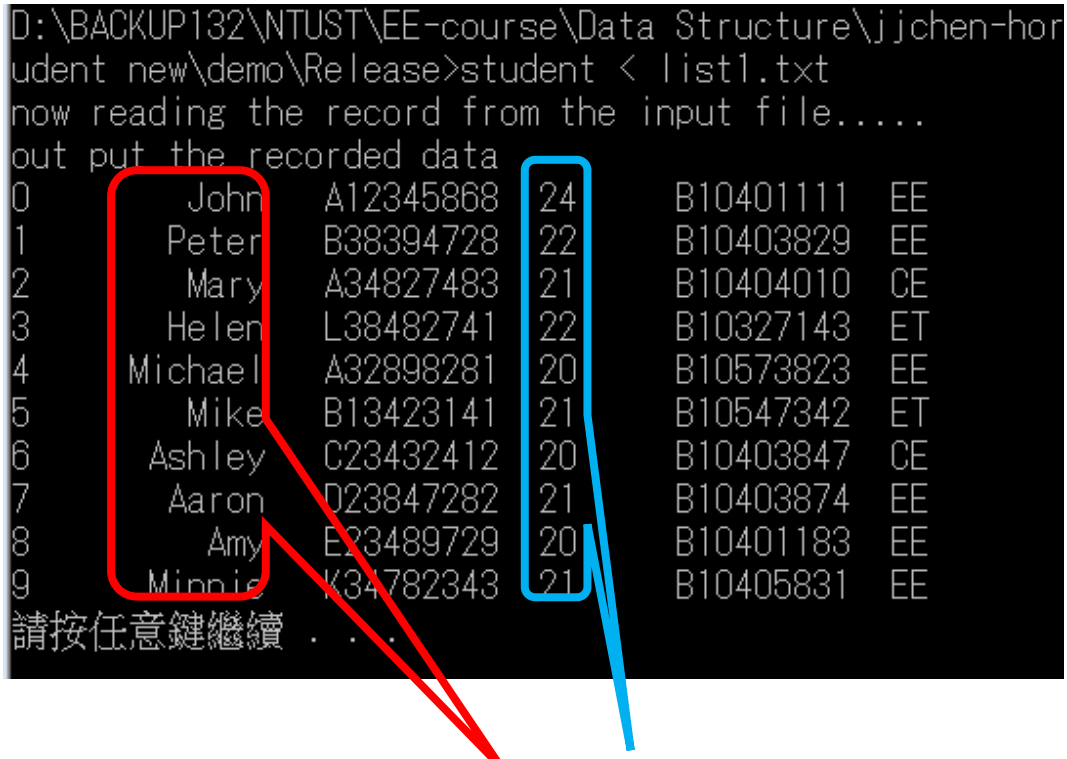
Data Structure Program Homework #1

- In the class, we demonstrate a program which can read student data from one file, i.e.,

  student < list1.txt

  The execution result looks like



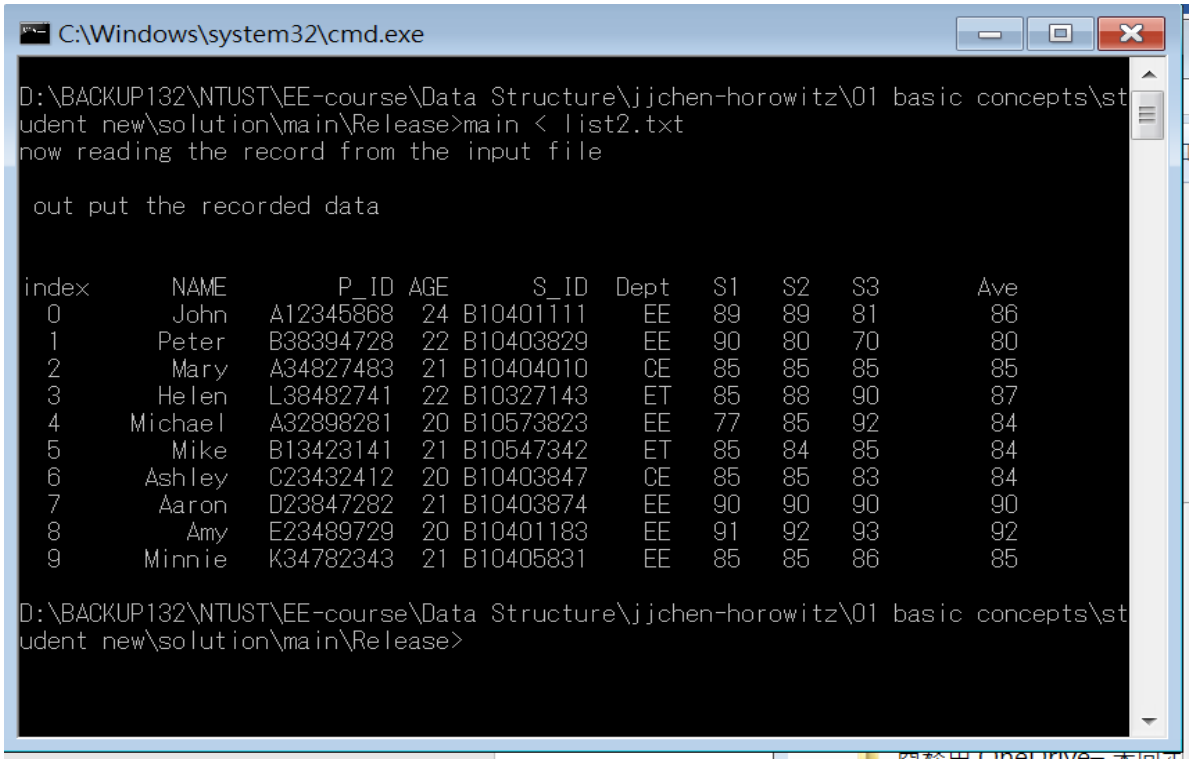
  where the student record comprises name and age.

- Please modify the program such that when the input file is changed to list2.txt whose contents are as follows.

```
10 // number of student record
John      A12345868 24 B10401111 EE 89 89 81
Peter     B38394728 22 B10403829 EE 90 80 70
Mary      A34827483 21 B10404010 CE 85 85 85
Helen     L38482741 22 B10327143 ET 85 88 90
Michael   A32898281 20 B10573823 EE 77 85 92
Mike      B13423141 21 B10547342 ET 85 84 85
Ashley    C23432412 20 B10403847 CE 85 85 83
Aaron     D23847282 21 B10403874 EE 90 90 90
Amy       E23489729 20 B10401183 EE 91 92 93
Minnie    K34782343 21 B10405831 EE 85 85 86
```

where the three numbers after each record are examination scores.

- After executing your program: **student < list2.txt**
  the output should look like:



Note that the last column is the average score;

- For you to quickly start your programming, a reference program is provided for you. Please check the HW1 from the course website to download this program
  - (60%) Modify from the given program to read the scores from the file and print them out.
  - (10%) Compute the average and print it out at the last column.
  - (10%) Provide the function to find out the student names with the **highest** average score and the **lowest** average score.
  - (10%) print the name and score from the highest to the lowest.
  - (10%) Write a short report to describe what you have done for this homework.

- You have to

  [1] Compress the whole project program you have finished.

  [2] upload to the moodle website before the due date