```cpp
51          cout << stu.name << "\t" << stu.math << "\t" << stu.english << "\t" << stu.nature << "\t" << stu.society << "\t" << stu.chinese <<
52      }
53      cout << "----------------------" << endl;
54  }
55
56
57  int main()
58  {
59      score temp;
60      vector<score> students;
61
62      srand((unsigned)time(NULL));
63
64      for (int i = 0; i < 100; i++)
65      {
66
67          temp.name = CreatName();
68          temp.math = rand() % 15 + 0;
69          temp.english = rand() % 15 + 0;
70          temp.nature = rand() % 15 + 0;
71          temp.society = rand() % 15 + 0;
72          temp.chinese = rand() % 15 + 0;
73          temp.total = temp.math + temp.english + temp.nature + temp.society + temp.chinese;
74          students.push_back(temp);
75      }
76
77      //Output(students);
78
79      InsertionSort(students, students.size());
80
81      //Output(students);
82
83
84      for (int i = 0; i < 100; i += 10)
```

Locals
- i: 2
- temp: {...}
  - name
  - math: 13
  - english: 13
  - nature: 13
  - society: 3
  - chinese: 13
  - total: 40
- students: {...}
  - std::_Vector_base<score, std:
- Registers

監看
- temp: {...}
  - name
  - math: 13
  - english: 13
  - nature: 13
  - society: 3
  - chinese: 13
  - total: 40

呼叫堆疊
- Thread #1   暫停於 STEP
  - main()   11003079a.cpp   70:1
- Thread #2   已暫停
- Thread #3   已暫停
- Thread #4   已暫停

中斷點
- All C++ Exceptions
- 11003079a.cpp   62

```json
1   {
2       // 使用 IntelliSense 以得知可用的屬性。
3       // 暫留以檢視現有屬性的描述。
4       // 如需詳細資訊,請瀏覽: https://go.microsoft.com/fwlink/?linkid=830387
5       "version": "0.2.0",
6       "configurations": [
7           {
8               "name": "g++.exe - 建置及偵錯使用中的檔案",
9               "type": "cppdbg",
10              "request": "launch",
11              "program": "${fileDirname}\\${fileBasenameNoExtension}.exe",
12              "args": [],
13              "stopAtEntry": false,
14              "cwd": "${fileDirname}",
15              "environment": [],
16              "externalConsole": false,
17              "MIMode": "gdb",
18              "miDebuggerPath": "C:\\MinGW\\bin\\gdb.exe",
19              "setupCommands": [
20                  {
21                      "description": "啟用 gdb 的美化顯示",
22                      "text": "-enable-pretty-printing",
23                      "ignoreFailures": true
24                  },
25                  {
26                      "description": "將反組譯碼變體設為 Intel",
27                      "text": "-gdb-set disassembly-flavor intel",
28                      "ignoreFailures": true
29                  }
30              ],
31              "preLaunchTask": "C/C++: g++.exe 建置使用中檔案"
32          }
33      ]
34  }
```

EXAM
- .vscode
  - launch.json
  - settings.json
  - tasks.json
- 11003079a.cpp
- 11003079a.exe
- 擷取.PNG
- isu11003079a.docx
- test3.exe

```cpp
        int total;
};

string CreatName()
{
    string name = "";
    for (int i = 0; i < 6; i++)
    {
        name += 'a' + rand() % 25 + 0;
    }
    return name;
}

void InsertionSort(vector<score> &students, int size)
{

    for (int i = 1; i < size; i++)
    {
        auto key = students[i];
        int j = i - 1;
        while (key.total < students[j].total && j >= 0)
        {
            students[j + 1] = students[j];
            j--;
        }
        students[j + 1] = key;
    }
}

void Output(vector<score> &students)
{
    cout << "name\tmath\tenglish\tnature\tsociety\tchinese\ttotal" << endl;
    for (auto stu : students)
    {
```

```
PS C:\Users\usr\Desktop\exam> cd "c:\Users\usr\Desktop\exam"
PS C:\Users\usr\Desktop\exam> & .\"11003079a.exe"
No.0 : tumlvu    1      7      7      1      1      17
No.10 : vmkuru   2      3      6      1      9      21
No.20 : pncqxs   2      13     9      1      1      26
No.30 : sykwct   0      14     7      6      2      29
No.40 : utnfws   6      5      8      4      8      31
No.50 : rkjsgf   4      12     10     3      5      34
No.60 : louadr   9      2      5      14     7      37
No.70 : jjlxfk   7      7      12     9      5      40
No.80 : kwvfyp   3      14     6      11     11     45
No.90 : ctlixw   11     10     12     14     3      50
PS C:\Users\usr\Desktop\exam>
```

Compiled successfully!