DS and OOP

LAB 1

Outline

- How to use workstation
- Linux command
- How to read arguments from command line
- Quiz

If you know first three, you can skip them and jump to page 14 to finish today's Quiz

How to use workstation

Putty
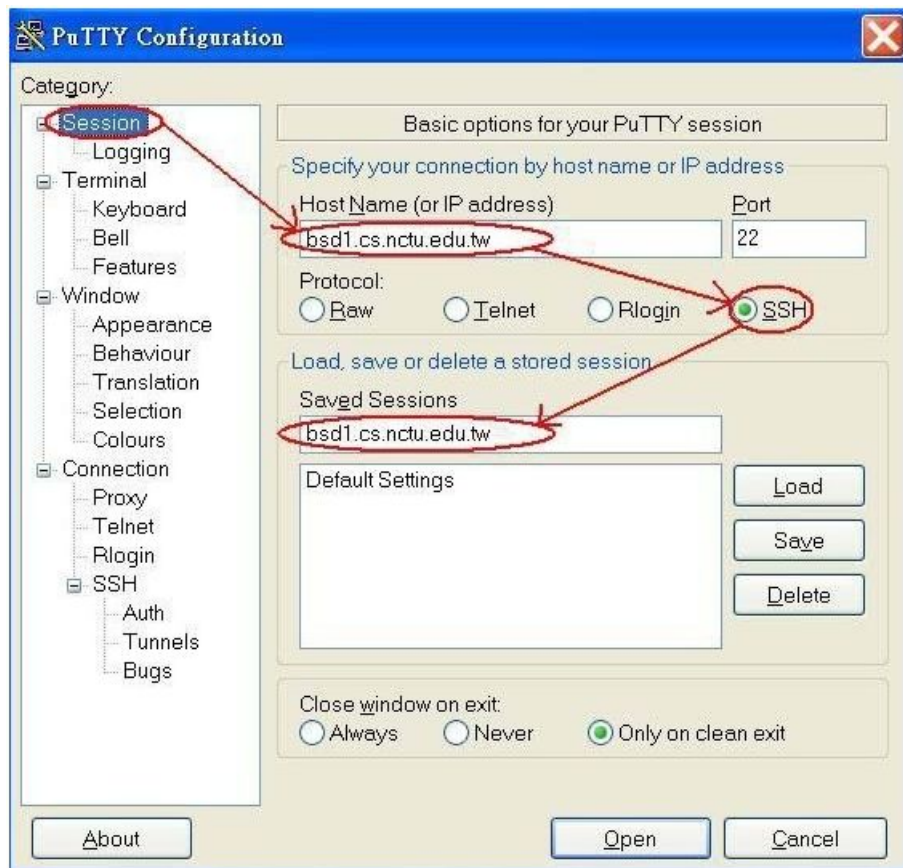
Please connect to:

linux1.cs.nctu.edu.tw

linux2.cs.nctu.edu.tw

linux3.cs.nctu.edu.tw

linux4.cs.nctu.edu.tw

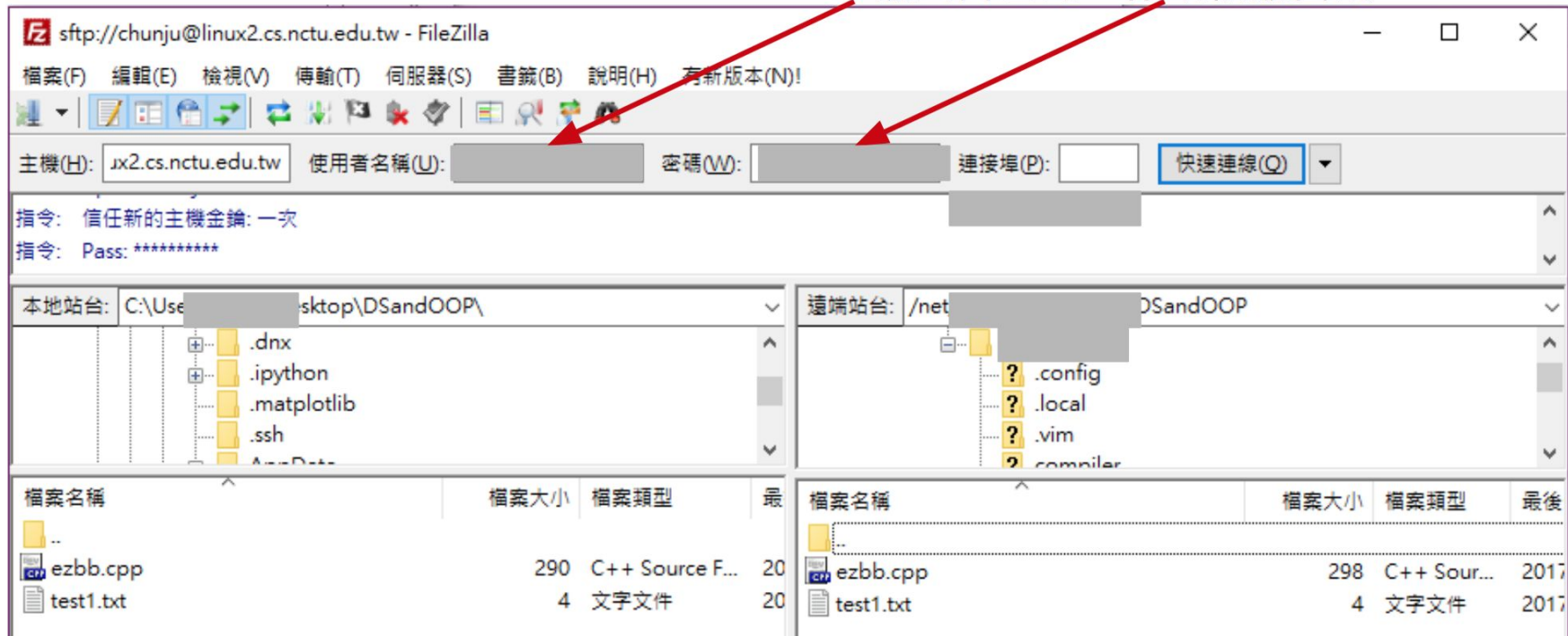linux5.cs.nctu.edu.tw

linux6.cs.nctu.edu.tw

Download:

https://goo.gl/bFz961

More Settings:

https://goo.gl/y5zc2d

Upload to Workstation

Linux Command

Linux command

Command you may use: cd, ls, g++ [-o outputfilename], ./[outputfilename]

Compile .cpp file and run .out file :

```
16:17        @linux2 [~/        ] >ls
ezbb.cpp   test1.txt
16:18        @linux2 [~/        ] >g++ ezbb.cpp
16:18        @linux2 [~/        ] >ls
a.out*   ezbb.cpp   test1.txt
16:18        @linux2 [~/        ] >./a.out
10
```

TAs will use workstation of NCTU CS to score your code, so you have to be familiar with it

How to read arguments from command line

How to read arguments from command line

```
1 #include <fstream>
2
3 int main(int argc, char **argv)
4 {
5     fstream fin;
6     fin.open(argv[1] , ios::in);
7 }
```

[C/C++] argc 和 argv 引數的應用

寫程式的時候常常可以看到main函數裡面的argc和argv這兩個變數。

```
int main(int argc, char **argv)
```

但這兩個變數有什麼應用呢？這兩個是用來傳遞參數到程式裡面。
舉例來說：

```
./a.out      CCC        aaa        bbb
argv[0]    argv[1]    argv[2]    argv[3], argc=4
```

Run on linux

command line argument

Codeblocks -- method 1

enter arguments here

DevC++
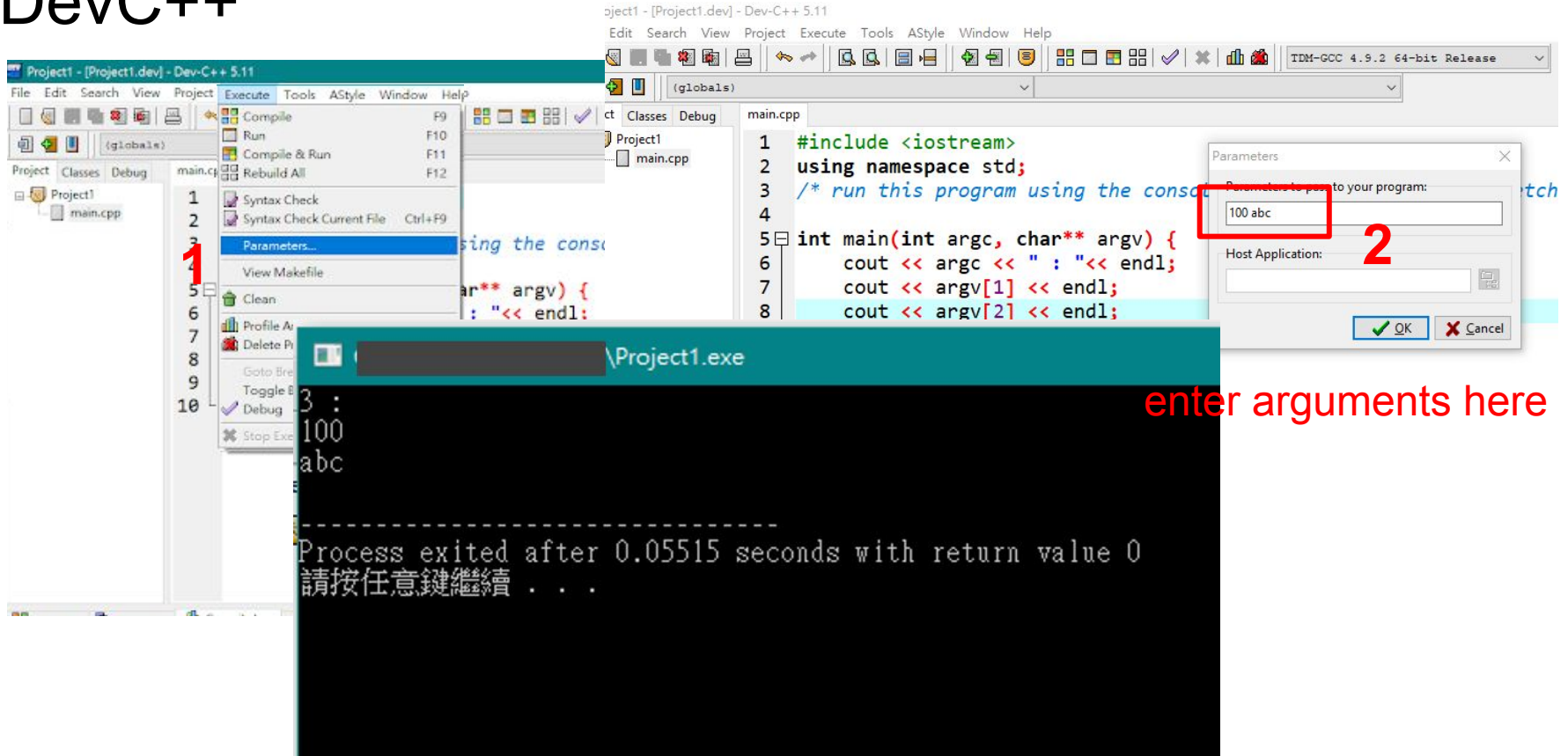
Quiz

Problem

Given some positive integers,

if the sum of all the digits is multiples of 5, print "computer"

if the product of all the digits is multiples of 9, print "science"

if the above situation both match, print "computer science"

if none is match, print "bug"

Format

Input

    Read some integers(arguments) from command line, and the number of integer is unknown

Output

    Standard output

    (each answer is separated by a newline "\n")

Example

Hint

Convert char* to int

atoi `<cstdlib>`

```
int atoi (const char * str);
```
Convert string to integer
Parses the C-string *str* interpreting its content as an integral number, which is returned as a value of type `int`.

```cpp
#include <iostream>
#include <cstdlib>        // <stdlib.h> in c
using namespace std;

int main(int argc, char **argv)
{
    int num = atoi(argv[1]);
```

This is just a hint!
You can use your own way!