

Writing a first C++ Program

Namespaces and Control Flow

01/20/2009

Miscellaneous

1 VNC sessions from home

Keep a separate ssh client open simultaneously!

2 File permissions

```
-rw-r--r-- 1 crede fsu 73481 2009-01-20 09:48 lecture.pdf
```

Change permissions with CHMOD, e.g.:

```
CHMOD UGO+RWX <FILE>
```

3 Editors in a simple terminal

- emacs -nw <file>
 - Save: <Ctrl> s
 - Save and Quit: <Ctrl> s <Ctrl> c
- nano
- vi

Outline

- 1 Homework Assignment
- 2 Basic C++ Program Structure and Syntax
 - Namespaces
 - Control Flow

Homework Assignment

- 1 Read Chapter 5
 - *“Writing a first Program”*
- 2 Assignments (1), (2), and (3) of Section 5.15
 - See handout!
 - Due next Tuesday, January 27
 - Hand in a paper copy

Outline

- 1 Homework Assignment
- 2 Basic C++ Program Structure and Syntax
 - Namespaces
 - Control Flow

The “main()” Function

```
# include <iostream.h>
```

```
main() {
```

```
    int var = 4;
```

```
    var = var + 1;
```

```
    cout << endl << var;
```

```
}
```

- 1 Every C++ program must contain exactly one occurrence of the *main()* construct.

The “main()” Function

```
# include <iostream.h>
```

```
int main() {
```

```
    int var = 4;
```

```
    var = var + 1;
```

```
    cout << endl << var;
```

```
}
```

- 1 Every C++ program must contain exactly one occurrence of the *main()* construct.

Namespaces

```
# include <iostream.h>
```

```
main() {  
    int var = 4;  
  
    var = var + 1;  
    cout << endl << var;  
}
```

- 1 “*include <iostream.h>*”
is an older deprecated or
antiquated header file
providing input and output
functionality.


```
# include <iostream>  
using namespace std;
```

```
main() {  
    int var = 4;  
  
    var = var + 1;  
    cout << endl << var;  
}
```

```
# include <iostream>
```

```
main() {  
    int var = 4;  
  
    var = var + 1;  
    std::cout << std::endl << var;  
}
```

Namespaces

- 1 “*include <iostream.h>*” is an older deprecated or antiquated header file providing input and output functionality.
- 2 New Standard: “*include <iostream>*” and using namespace.

```
# include <iostream.h>
```

```
main() {  
    int a, b = 1;  
  
    cin >> a;  
  
    if (a == b) {  
        a = 1;  
    }  
    else if (a == 5) {  
        ...  
    }  
}
```

Control Flow

- 1 The most fundamental control statements are the **if (logical condition) ...** and the following **else ...** statements.
- 2 **Caveat: $a == 5$ is not the same as $a = 5$**