

LAB 2: Compiling Programs with Errors

Lab 2.1 – Compile Error

1. Create a new C++ program, go to File/New/Source File.
2. Type in your C++ source code file as per below:

```
// This program displays a simple message
// Student's name:
// Date:
#include <iostream>
using namespace std;
int main ()
{
    cout << "Computer programming is fun!" << endl;
    cout << "But not when you found many errors ^__^" << endl
    return 0;
}
```

3. Save the file.
4. Now *compile* the program. Choose *Execute/Compile*. You will need to check *Compile Log* to see the error message given. Put a semicolon after the line `cout << "But not when you found many errors ^__^" << endl` to correct the error. Once you have fixed the problem, *re-compile* the codes.
5. Now run the program by choosing *Execute/Run* and observe the displayed output.

Lab 2.2 – Run Time Error

1. Create a new C++ program, go to File/New/Source File.
2. Type in your C++ source code file as per below:

```
// This program do division by 2 on a number entered by the user
// Student's name:
// Date:
#include <iostream>
using namespace std;
int main()
{
    float input;
    int div = 0;
    cout << "Hello!" << endl;
    cout << "Please key in a number: " << endl;
    cin >> input;
    input = input / div;
    cout << "Half of your input is " << input << endl;
    return 0;
}
```

3. Save the file.
4. Now *compile* the program. Choose *Execute/Compile*. You will need to check *Compile Log* to see if there is any error message given. These codes generate *zero* error messages which mean there is no compile error.
5. Proceed to run the program by choosing *Execute/Run*. There's a prompt asking you to: **Please key in a number.** Enter any number and hit 'enter' key.
6. The above program is actually give instruction to disobey mathematical law by dividing by zero. This operation is impossible, and 'inf' will be displayed as the output. Modify your code by changing the division value to 2 instead of zero by changing `div = 0;` into `div = 2;`
7. Re-compile and execute the modified codes.