

**Ministry of Higher Education
Colleges of Applied Sciences
IT Department**

**Course: SFDV4001 – Object-Oriented Programming & User Interface
Lab: 1 – Standard Input and Output**

1. Create a “Qt Console Application” Project

Run Qt-Creator as shown in Figure 1. Click “Create Project” button located at the bottom right corner.

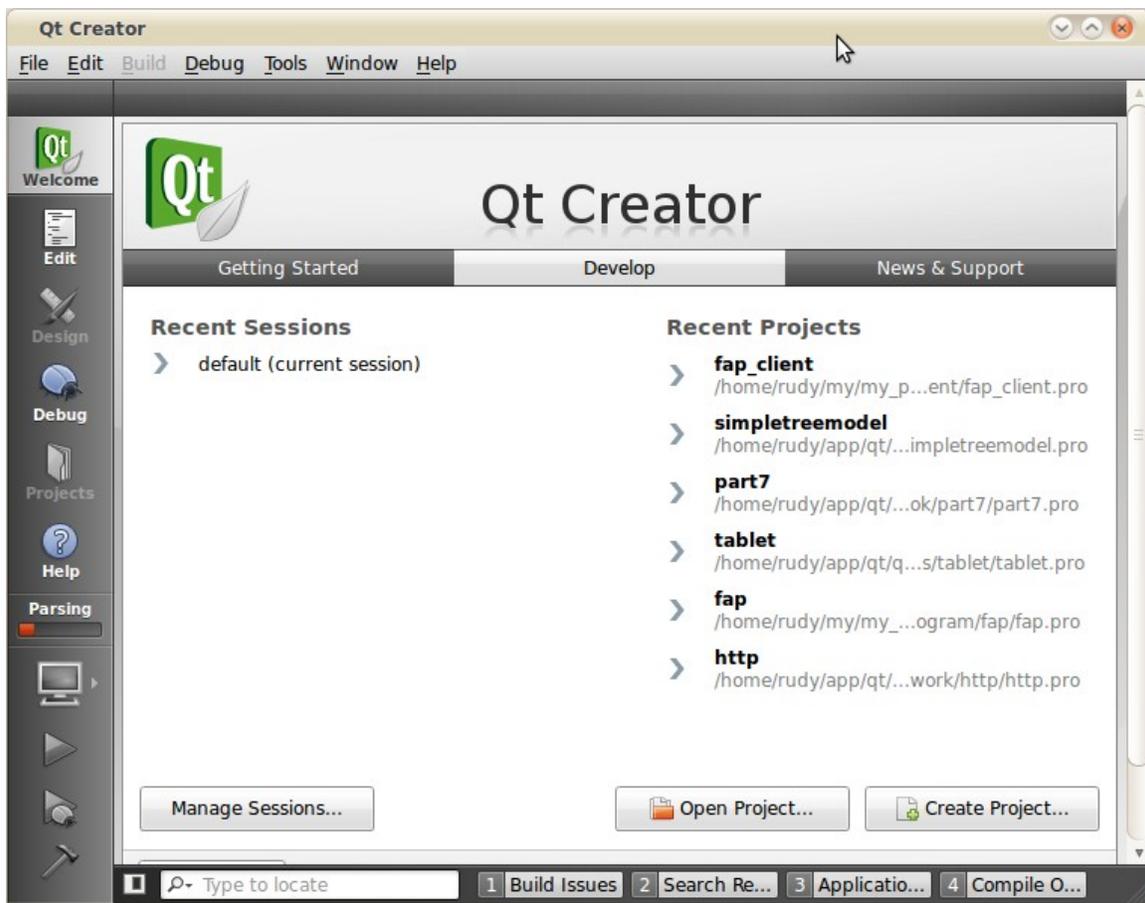


Figure 1: Qt-Creator

Select "Qt Console Application" at the upper right, and click "Choose" button as shown in Figure 2.

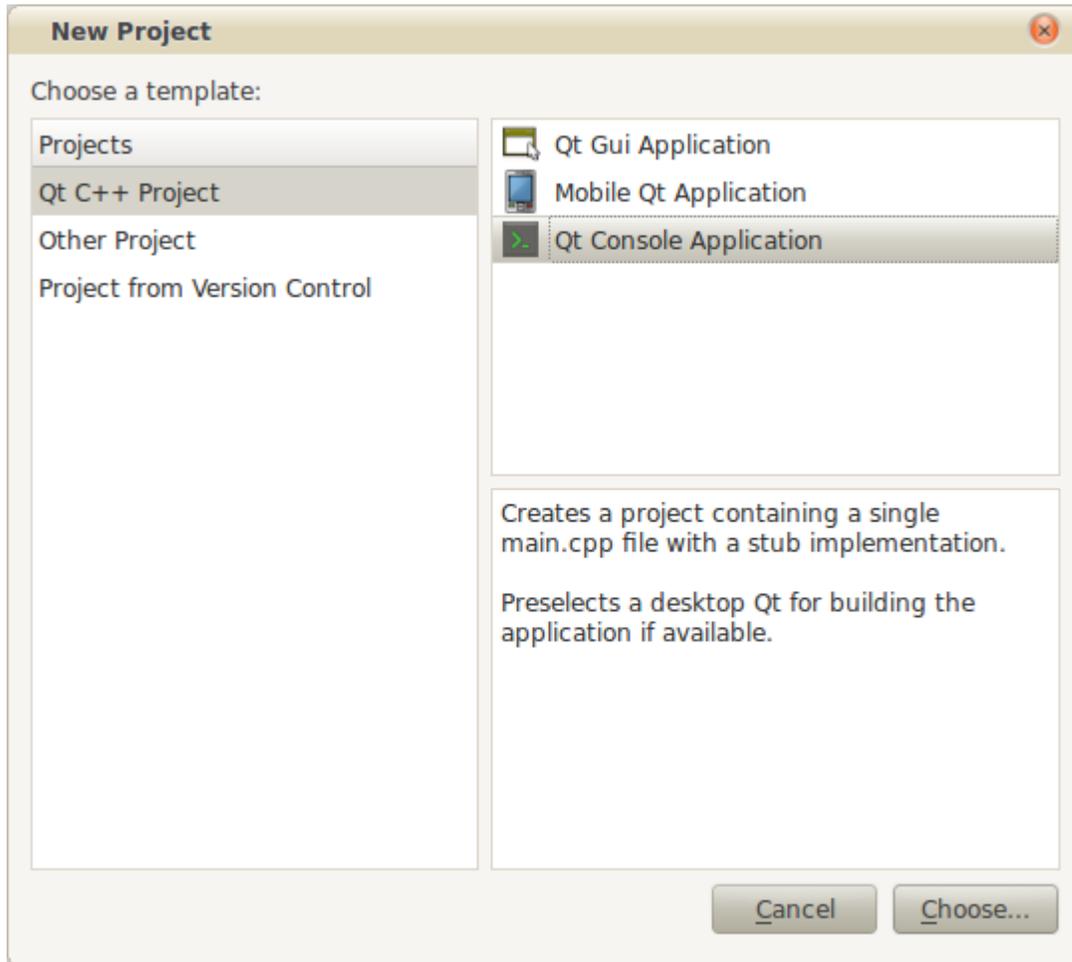


Figure 2: Select Qt Console Application.

Name your project "Lab01" and select the directory in which you want to store your project, as shown in Figure 3.

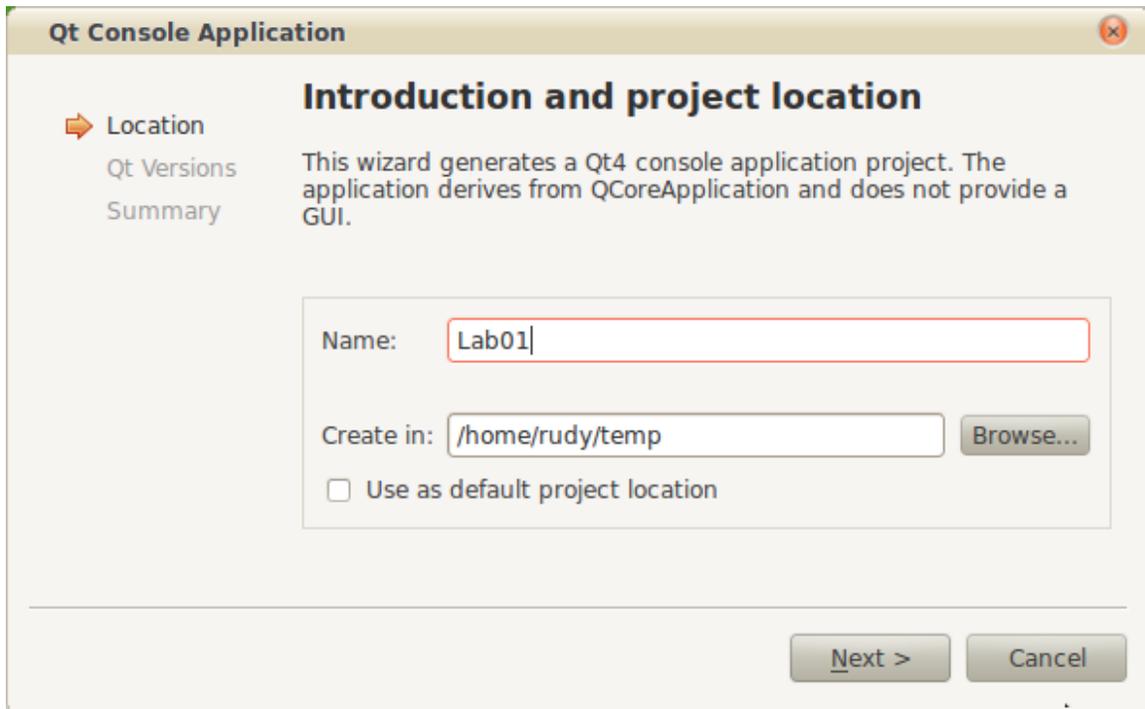


Figure 3: Name your project, "Lab01".

Click Next, and then Finish.

As shown in Figure 4,

- Click "Project" button at the left side.
- Select the "Run Settings".
- Click "Run in terminal" checkbox so that you can run your C++ program in a DOS prompt.

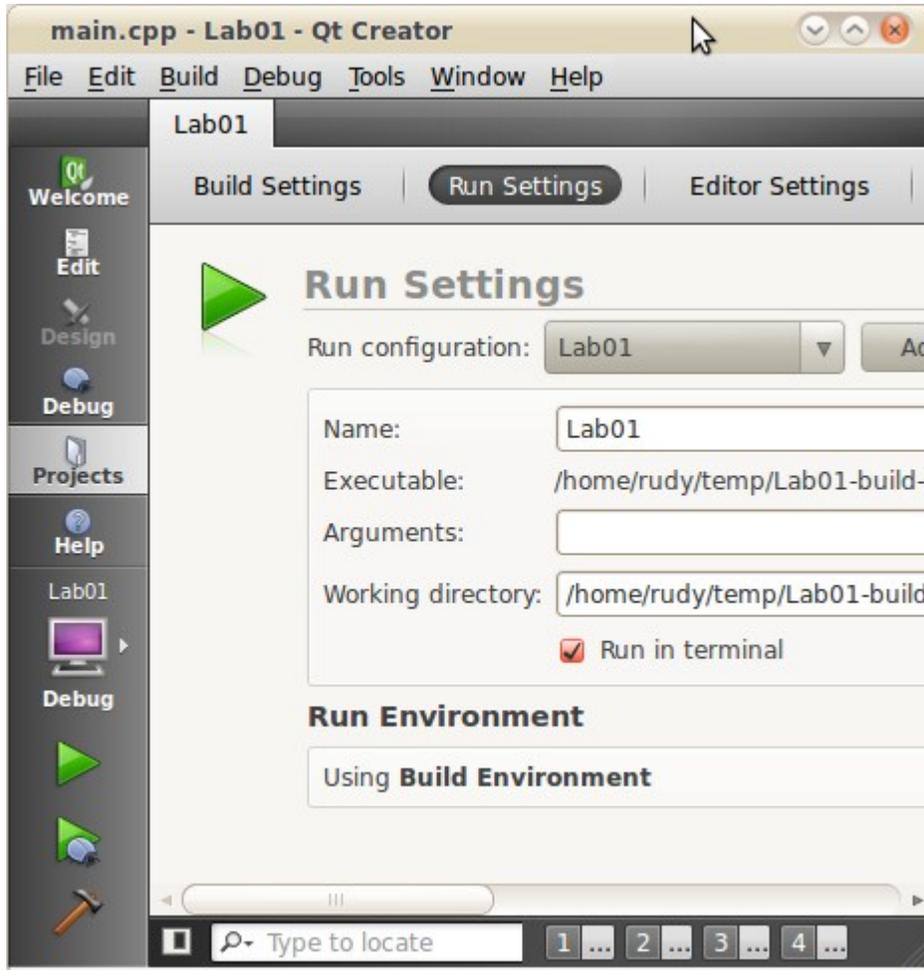


Figure 4: Change run setting.

2. Write a Simple C++ Program.

Copy the code above in main.cpp.
Build the project by pressing **CTRL-B**.
Run the project by pressing **CTRL-R**.

Code listing 2.1

```
#include <iostream>

using namespace std;

int main(int argc, char *argv[])
{
    cout << "Hello" << "\n" ;
    return 0;
}
```

Observe the code listing 2.1, and answer the following questions.

- What is `cout` for?
- What is the name of C++ library containing the implementation of `cout`?
- What is `namespace`?
- What will happen if you don't use `using namespace std`?

3. Use Standard Input and Output

Observe the code listing 3.1, and answer the following questions.

- Is there any difference between *input1* & *input2*, if you enter a character?
- Is there any difference between *input1* and *input2*, if you enter two characters separated by a blank space?
- What is the output if you enter a number into variable *input1* or *input2*?
- What is the output if you enter an alphabet (a – z) or non-numerical characters into variable *i*?

Code listing 3.1

```
#include <iostream>
#include <string>

using namespace std;

int main(int argc, char *argv[])
{
    // Part 1
    cout << "PART 1" << "\n";
    string input1;
    cout << "Enter a string:" ;
    getline(cin,input1);
    cout << "You entered: ";
    cout << input1 << endl ;

    // Part 2
    cout << "\nPART 2\n";
    string input2;
    cout << "Enter a string:" ;
    cin >> input2;
    cout << "You entered: " << input2 << "\n";

    // Part 3
    cout << "\nPART 3\n";
    int i;
    cout << "Enter a number:" ;
    cin >> i ;
    cout << "You entered: " << i << endl ;
    return 0;
}
```