Lab Exercise 1

**Part 1**

- We’ve added a directive.

- This prevents input that is not an integer.

- It returns a value corresponding to the data type of the function.

# include <iostream>

# include <string>

# include <cctype>

using namespace std;

int main()

{

string name;

cout << "Input name: ";

getline(cin, name);

if (name.length() < 4)

cout << "Invalid input, try again" << endl;

else

cout << "Welcome " << name << endl;

return 0;

}

- Line 7 and 42 have been added to ensure that the program runs automatically.

- It makes it an infinite loop.

- It means that the loop should run as long as at least one of the conditions is true.

**Part 2**

// program to convert decimal numbers to binary

# include <iostream>

# include <string>

# include <cctype>

using namespace std;

int main()

{

int num;

int bin;

string final;

cout << "Enter decimal number to be converted to binary: ";

cin >> num;

while (num != 0)

{

if (num % 2 != 0)

{

num = num / 2;

bin = 1;

cout << bin;

}

else

{

num = num / 2;

bin = 0;

cout << bin;

}

}

return 0;

}