Lab 1 - wb 28/10/13

This week will cover Outputting text to the screen, variables, and input. This is split into 3 short demos, as below. After the demo session there is a small challenge at the bottom of the document, to help you test your understanding. Next week I will be creating a series of webcasts to cover these topics (an other during the year) in more detail, which you can look back at for reference or if you miss a session.

Demo Part 1

Output (Hello World)

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

int main()
{
    cout<<"Hello World"; //Output Hello World
    cin.get(); //Wait for keypress before continuing
    return 0;
}
```

Demo Part 2

Variables

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

int main()
{
    string greeting;
    greeting = "Hello World"; // Strings need Quotes
    cout<<greeting;  //variables don't need quotes

    cout<<endl; // New line

    int number_a, number_b;
    number_a = 5; //Numbers also don't need quotes
    number_b = 2;
    cout<< number_a * number_b; // outputs number_a * number_b - so 5*2 = 10

    cout<<endl; // New line

    cout<<greeting<<", My name is ..."; //You can string together a sentence with multiple
                                        //variables and strings using more << signs

    cin.get();
    return 0;
}
```

Demo Part 3
Input and storing input.

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

int main()
{
    string name;
    string place;

    int fav_number;

    cout<<"Hello What is your name? ";
    cin>>name;

    cout<<"Where do you live? ";
    cin>>place;

    cout<<"What is your favourite number? ";
    cin>>fav_number;

    cout<<endl<<endl;

    cout<<"Hello "<<name<<" from "<<place<<", I hear your favourite number is "<<fav_number;

    cin.ignore(); //Clear the buffer - When we last input text we left an endline in the buffer,
                  //we need to remove this to allow the program to pause on cin.get()
    cin.get();
    return 0;
}
```

Have A Go - Test Your Knowledge!

Challenge 1
Ask the user for some input and store this information. Use this information to write a short story and/or joke about the user.

Challenge 2
Ask the user for 6 numbers and output the average of those 6 numbers.

Hint: If you are storing the result, you may want to use a float or a double at the result may have a decimal point!

Hint: To work out the average, add all the numbers together and divide by the amount of numbers added together.